CHAPTER 10

Peer Interactions, Relationships, and Groups

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Experiences with peers constitute an important developmental context for children. In these contexts, children acquire a wide range of behaviors, skills, attitudes, and experiences that influence their adaptation during the life span. Experiences with peers affect social, emotional, and cognitive functioning beyond the influences of family, school, and neighborhood. In this chapter, we present the current research related to these claims. We begin by commenting briefly on developments in the study of children's peers since the publication of the last Handbook of Child Psychology in 1998. Our previous chapter distinguished between processes and effects

The writing of this manuscript was supported, in part, by a grant from the National Institute of Mental Health (# MH58116) to Kenneth H. Rubin and by grants from the Social Sciences and Humanities Research Council of Canada and the Fonds Québécois de la recherche sur la société et la culture to William M. Bukowski.
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at the levels of the interactions, relationships, and groups. Our goal is to provide an updated examination of current theory and research on peer relationships and development.

The task of reviewing the literature on peer interactions, relationships, and groups becomes more challenging as the literature becomes more extensive and diverse. The number of relevant papers published in the past 8 years is substantially larger than the number published in any previous 8-year period. Since the publication of our 1998 chapter, several major books have appeared, including:

*Children’s Peer Relations* (Slee & Rigby, 1998)
*Sociometry Then and Now: Building on 6 Decades of Measuring Experiences with the Peer Group* (Bukowski & Cillessen, 1996)
*The Role of Friendship in Psychological Adjustment* (Nangle & Erdley, 2001)
*Peer Harassment in School: The Plight of the Vulnerable and Victimized* (Juvonen & Graham, 2001)
*How Children and Adolescents Evaluate Gender and Racial Exclusion* (Killen, Lee-Kim, McGlothlin, & Stangor, 2002)
*Peer Rejection: Developmental Processes and Intervention Strategies* (Bierman, 2003)
*Enemies and the Darker Side of Peer Relations* (Hodges & Card, 2003)
*Children’s Friendships: The Beginnings of Intimacy* (Dunn, 2004)
*Children’s Peer Relations: From Development to Intervention* (Kupersmidt & Dodge, 2004)

Perhaps even more important, a number of trade books on peer relationships are now available for parents and teachers, including:

*Queen Bees and Wannabees: Helping Your Daughter Survive Cliques, Gossip, Boyfriends, and Other Realities of Adolescence* (Wiseman, 2002)
*The Friendship Factor* (Rubin, 2003)

Not only have the topics of children’s peer interactions, relationships, and groups experienced increased research and public attention, but the study of the peer system has also become increasingly diverse, more articulated, and more naturalistic. Its diversity is seen not only in the wide range of topics that are studied but also in the participation of children from cultures other than those typically found in Western research. Topics recently introduced to the discipline include the significance of peers and friendships as children mark transitions from one school setting to another; cultural and cross-cultural meanings of acceptable and unacceptable social behaviors and relationships; perceived popularity; jealousy and other emotional processes related to the maintenance and dissolution of peer relationships; the statistical (and conceptual) modeling of growth and change in peer interactions and relationships; peer victimization; mutual antipathies; early romantic relationships; and the relative contribution of peers and friendships to well- and ill-being.

Prior emphases on rejection as necessarily “bad” and friendship as necessarily “good” have been replaced by models that emphasize how sets of variables function together via mediation and moderation to affect outcome. The past decade has seen several changes in peer research, including an increase of interest in victimization, a decrease in interest in sociometric rejection, increases in the emphasis on biology and emotion, a concern with the peer group per se, and an interest in developing process-oriented explanatory models to account for the factors underlying risk.

In parallel to these changes, research on peer interactions, relationships, and groups has focused on an increasingly articulated set of measures. Although the use of omnibus measures of aggression, withdrawal, sociability, sociometric status, and victimization continues, the use of more specific measures, drawn from more refined thinking about individual characteristics and social interactions, has increased. Now, for example, aggression is measured according to whether it is direct, indirect, relational, physical, reactive, or proactive; withdrawal is measured to the extent that it reflects social reticence, social immaturity, preference for objects rather than people, or social exclusion. Research designs have changed also. The once prevalent preference for one-time-only studies has been coupled with the more frequent use of longitudinal designs that allow an examination of prediction as well as intra-individual change. Thus, the literature on peer interactions, relationships, and groups continues to evolve toward higher levels of complexity and specificity.
In the first section of this chapter, we pay homage to those researchers who established areas of investigation that are still active today. Next, we suggest that the peer system consists of multiple levels of analysis, namely individual characteristics, social interactions, dyadic relationships, and group membership and composition. Our thesis is that interactions, relationships, and groups reflect social participation at different interwoven orders of complexity. Our goal, in introducing these levels of analysis, is to establish a framework for further discussion of the development and significance of children’s peer experiences. Moreover, discussion of the interaction, relationships, and group levels of social complexity allows subsequent commentary on conceptual and assessment issues that pertain to individual differences in children’s behavioral tendencies and peer relationships. These different levels of analysis receive different amounts of treatment in the theoretical accounts of the significance of peer experiences for normal development. These issues are discussed in the next section where we present theories relevant to the understanding of the peer system.

Next, we describe normative patterns of development from infancy through late childhood and early adolescence. Researchers who study children’s peer experiences have long maintained a healthy interest in measurement and measurement issues. In the fifth section, we distinguish between individuals, interactions, relationships, and groups in a discussion of measurement issues. In the final sections, we update the voluminous literature that has emerged concerning the origins and consequences of individual differences in children’s experiences with peers. We pay particular attention to the proximal and distal correlates of variables associated with individual differences in popularity and friendship. We consider also the developmental prognosis for children whose peer interaction patterns and relationships are deviant from the norm. The chapter concludes with a discussion of some of the directions that future research might take.

**PEER INTERACTION AND RELATIONSHIPS—AN HISTORICAL OVERVIEW**

The study of children’s peer interactions and relationships has had a long and rich history. Charlotte Buhler (1931), in the first *Handbook* chapter on peer interactions and relationships, cited 253 papers, 156 of which were published in German. Among these early German studies were developmental examinations of social interaction in infants and toddlers; studies of antisocial “tendencies” in children and adolescents; investigations of the evolution of different leadership roles played by children in their peer groups, and observational studies of the development of friendship networks. Thus, prior to World War II, German laboratories were producing research on topics not unknown to contemporaneous peer relationships researchers. Often, the correlates or concomitants of these relationship variables were examined, such as family constellation, institutionalization, and poverty. We continue to grapple with these topics today.

**Early North American Research**

North American research concerning children’s peer interactions and relationships began to blossom in the 1920s when the first Child Welfare Research Stations came into existence. These interdisciplinary research centers produced new observational and statistical procedures to examine developmental and individual differences in children’s social behaviors, interactions, and peer relationships. Research reports from these centers emphasized the development of social participation (Parten, 1932); assertiveness (Dawe, 1934); sympathetic and altruistic behaviors (L. Murphy, 1937); conflict and aggression (Maudry & Nekula, 1939); leadership, dominance, and ascendant behavior (Hanfmann, 1935); friendship (Challman, 1932); group dynamics (K. Lewin, Lippitt, & White, 1939); and peer group structure and composition (Moreno, 1934).

By the beginning of World War II, the study of children’s social behaviors, interactions, and peer relationships began to wane as many persons who did developmental research had joined the war effort. Nevertheless, during this period, increased attention was directed to topics relevant to group processes and democratic values. Interest in these topics had been heightened by the sociopolitical events associated with the war and led to research on the interface between individual characteristics (e.g., leadership), interactions between group members, and group dynamics. For example, one line of research was concerned with factors that might evoke and maintain intra- and intergroup harmony and conflict. It is not a coincidence that one of the conditions of the K. Lewin et al.’s (1939) classic study of the effect of leadership on peer group processes was labeled “democratic,” whereas another was labeled “authoritarian.”
A second area of research that flourished during this time of concern with group composition and processes was sociometry. Following the work of Moreno (1934), the war period is noted for the further development of sociometric techniques that provided researchers with a means of studying acceptance and rejection (see Bronfenbrenner, 1944). These techniques were immediately used to study a variety of questions concerning the correlates of children’s experiences with peers. Publications by Northway (1944) and Bonney (1944) serve as historical exemplars for current researchers interested in the factors related to children’s experiences in groups.

Post-World War II

The arrival of the Cold War fostered limited research concern about children and their extramilial social relationships. Instead, attention was directed to children’s academic and intellectual prowess. With the launching of the Sputnik satellite by the USSR in 1957, the pressures to train children to become academically oriented and skilled at earlier ages and at faster rates than ever before moved developmental researchers away from the earlier focus on children’s social worlds.

In the 1960s, the rediscovery of the Piaget’s developmental theory provided an impetus for a structurally oriented research climate that captured the interest of psychologists throughout the Western world. A brief glance at archival child psychology and development journals during the 1960s and 1970s will reveal the domination of the Piagetian Zeitgeist, in conjunction with, or in opposition to, the behaviorist Zeitgeist. This focus on cognition, coupled with continued interest in achievement motivation and behavior, created an environment that was not particularly attuned to the significance of peer interaction and relationships. Nevertheless, researchers in the 1960s and early 1970s appeared to accept the premise that young children were egocentric and were neither willing, nor able, to understand the thoughts, feelings, and spatial perspectives of their peers. Egocentrism also stood in the way of making mature moral judgments and decisions. Given these assumptions, the mind-set seemed to be that studying children’s peer relationships would not be productive, at least until the mid-elementary school ages when concrete operations emerged and when egocentric thought vanished.

The coupling of this research and educational climate with the social policy mandate of the mid-1960s regarding the eradication of poverty, led to the development of early education programs for which the primary foci were cognitive and language development and the development of an achievement orientation in young children. Accordingly, nursery schools moved away from emphasizing the development of relationships and social skills and instead aimed to prepare “at-risk” children for elementary school. Additionally, the achievement-oriented middle classes of the 1960s and 1970s increasingly favored cognitively oriented preschool programs.

Despite the emphasis on early cognitive and language development, the preschool and day-care movements of the 1960s and 1970s may have been partly responsible for the reemergence of peer relationships research. In particular, the growth of early education and care centers in North America was dictated, not only by the need to prevent educational failure among the socioeconomically impoverished, but also by the need for out-of-home care for dual income middle-class households. Given that North American children were entering organized peer group settings at earlier ages than ever before and given that children were remaining with peers in age-segregated schools for more years than their cohorts of previous generations, it would have been shortsighted and irresponsible for developmental researchers to ignore the importance of children’s peer relationships and social skills.

The current theories about the significance of peer interactions and relationships for normal development are certainly not new. Piaget (1932) himself implicated peer interaction, discourse, and negotiation as crucial elements likely to provoke higher levels of operational thinking. Mead (1934) and Sullivan (1953) also wrote persuasively about the importance of friendship and peer relationships for adaptive development. Thus, by the end of the 1960s, the time appeared ripe for child developmentalists to be reminded of their early roots. This reminder was issued by Hartup in his 1970 Manual of Child Psychology chapter. This chapter, and Hartup’s (1983) revision, proved provocative. In 1998, we provided the Handbook with an updated look at the literature on peer interactions, relationships, and groups.

The large amount of research attention directed to the study of children’s peer interactions, relationships, and groups in the 1980s occurred at the same time that a new approach to understanding the development of psychopathology was proposed. A basic tenet of the approach was that the study of normative development and individual differences and the study of psychopathology were mutually enriching activities (Sroufe & Rutter,
The study of peer interactions and relationships was ideally suited to the field of developmental psychopathology. Researchers recognized that theories, constructs, variables and measures of peer interactions, and relationships were valuable and useful for the study of normal development and for the study of maladjustment. The result of this confluence has been that the study of peer interactions, relationships, and groups and the study of the development of psychopathology have become highly complementary activities (e.g., Deater-Deckard, 2001). On the one hand, children’s problems with peers, regardless of their source, may contribute to the genesis of behavioral or emotional disorder; on the other hand, children with behavioral and emotional difficulties may be rejected and/or victimized by their peers from the earliest years of life (Hay, Payne, & Chadwick, 2004). A prominent example of the liaison between the study of peers and the study of maladjustment can be seen in current research on bullying and victimization. Following extreme incidents in schools and among youth in groups, investigators became increasingly interested in identifying the complex interactions between individual and group factors that account for the harm that peers can inflict on each other.

In summary, the study of peer interactions, relationships, and groups has a long and rich history. The topics that have attracted the attention of peer researchers have varied in response to intellectual Zeitgeists, advances in theory and research in other domains of developmental psychology, and to social and political events. Currently, peer research balances concerns with the study of individual differences with the study of basic processes. The features of this balance are evident in the sections that follow.

INTERACTIONS, RELATIONSHIPS, AND GROUPS: ORDERS OF COMPLEXITY IN CHILDREN’S PEER EXPERIENCES

Children’s experiences with peers can be best understood by referring to several levels of social complexity—in individuals, in interactions, in relationships, and in groups (Hinde, 1987). Moreover, events and processes at each level are constrained and influenced by events and processes at other levels. Individuals bring to social exchanges more or less stable social orientations, temperaments that dispose them to be more or less aroused physiologically to social stimuli, and a repertoire of social skills for social perception, cognition, and social problem solving. Over the short term, their interactions with other children vary in form and function in response to fluctuations in the parameters of the social situation, such as the partner’s characteristics, overtures, and responses. Further, most interactions are embedded in longer-term relationships and thus are influenced by past and anticipated future interactions. Relationships may take many forms and have properties that are not relevant to interactions. At the same time, the nature of a relationship is defined partly by the characteristics of its members, its constituent interactions, and, over the long term, the kinds of relationships individuals form depend on their history of interactions in earlier relationships. Finally, individual relationships are embedded in groups or networks of relationships with more or less clearly defined boundaries (e.g., cliques, teams, or school classes). As the highest level of social complexity, groups are defined by their constituent relationships and, in this sense, by the types and diversity of interactions that are characteristic of the participants in those relationships. But groups are more than mere aggregates of relationships; through emergent properties, such as norms or shared cultural conventions, groups help define the type and range of relationships and interactions that are likely or permissible.

Further, groups have properties and processes, such as hierarchical organization and cohesiveness, which are not relevant to description of children’s experiences at lower levels of social complexity.

To further complicate matters, at any level of social organization the understanding of participants will necessarily differ from that of outsiders. Humorous anecdotes shared between friends, for example, can strike outsiders as unnecessarily cruel (e.g., gossip). Children with many friends can still feel lonely; and seemingly innocuous acts can have great significance to members of a friendship, who understand them differently than do outsiders. Given that neither insiders nor outsiders can claim any specific hegemony on the truth, researchers must be prepared to cross and re-cross perspectives as the problem dictates.

The complexity of the multiple, interrelated levels of social organization that underpin peer experiences can make the prospect of understanding these experiences and their influence on children seem truly dim. Historically, distinctions between the various levels and perspectives of children’s peer experiences often have been
blurred. For example, investigators have confused phenomena from different levels (e.g., failing to distinguish between group acceptance and friendship) or perspectives (e.g., accepting one child’s declaration as evidence of friendship without verifying the reciprocity of this sentiment), and have also sometimes been too facile in making inferences about experiences at one level from measurements at another (e.g., assuming that children who are aggressive in interaction cannot be well-liked or those who are socially removed and withdrawn from interaction cannot have friends). Nevertheless, over the past 25 years, recognition and articulation of the multiple levels of analysis and perspectives that comprise the peer system have greatly increased. Especially significant in this regard has been the contribution of Robert Hinde (e.g., 1987, 1995) who has articulated the features and dialectical relations between successive levels of social complexity.

Borrowing heavily from Hinde, in this section we discuss the nature of three successive levels of complexity in children’s experiences with peers—interactions, relationships, and groups. Our goal is to set the framework for subsequent discussion of the development and significance of children’s peer experiences. The interaction, relationship, and group levels of social complexity are also important to the conceptualization and assessment of individual differences in children’s behavioral tendencies because individuals can be compared with respect to their functioning at these levels; therefore, the present section serves as an orienting framework for our later discussion of measurement issues. As we indicated, a hierarchy of social complexity should include processes at work at the individual (versus interactional, relationship, or group) level of description. These processes would include children’s socioemotional/temperamental dispositions, and social knowledge and skills repertoires. In the literature on children’s peer experiences, the individual level has been the focus of much interest. However, rather than introduce this well-developed literature here, we embed its discussion into sections on children’s interactions and relationships.

**Interactions**

The simplest order of complexity of peer experience involves interactions. Interaction refers to the social exchange of some duration between two individuals. Behaviors that simply (and only) complement one another (like riding on either end of a teeter-totter) would ordinarily not be considered true interaction unless it was amply clear that they were jointly undertaken. Instead, the term interaction is reserved for dyadic behavior in which the participants’ actions are interdependent such that each actor’s behavior is both a response to, and stimulus for, the other participant’s behavior. At its core, an interaction comprises “such incidents as Individual A shows behavior X to Individual B, or A shows X to B and B responds with Y” (Hinde, 1979, p. 15). Conversational turn-taking is a quintessential illustration: Thus, Child A requests information from Child B (“What’s your name?”), Child B responds (“My name is Lara. What’s yours?”), Child A replies (“Camilla.”), and so on.

Such a simple exchange as that of Camilla and Lara belies the richness and complexity of the ways that children of most ages communicate with and influence one another. Thus, besides introducing themselves, children in conversation may argue, gossip, comfort, and support one another, self-disclose, and joke, among other things.

And, during interaction, children cooperate, compete, fight, withdraw, respond to provocation, and engage in a host of other behaviors that includes everything from ritualized sexual contact to rough-and-tumble (R&T) play to highly structured sociodramatic fantasy. Typically, researchers have been less interested in cataloging the myriad of interactional experiences than in understanding the origins and consequences of three broad childhood behavioral tendencies: (1) moving toward others, (2) moving against others, and (3) moving away from others. As a consequence, our understanding of children’s experiences at the interactional level is disproportionately organized around the constructs of sociability and helpfulness, aggression, and withdrawal. As much of this literature is oriented toward individual differences among children along these dimensions of interaction, we review this research in later sections. Developmental trends in these behaviors are described in the subsequent section.

Although many social exchanges have their own inherent logic (as in the question-answer sequence of Camilla and Lara), it is also the case that the forms and trajectories of episodes of interaction are shaped by the relationships in which they are embedded. For example, friends are more committed to resolving conflict with each other than nonfriends, are more likely than nonfriends to reach equitable resolutions, and continue to interact following a disagreement (Laursen, 1993; Laursen, Finkelstein, & Betts, 2001; Laursen, Hartup, & Koplas, 1996; Laursen & Koplas, 1995; Newcomb &
Bagwell, 1995). Beyond this, children engaged in interaction vary their behavior as a function of their short-term and long-term personal goals, their understanding of their partner’s thoughts and feelings in the situation, the depth of their repertoire of alternative responses, and various “ecological” features of the context of the interactions (such as the presence of bystanders), the physical setting, their own and their partner’s relative standing in the group, and the operative local customs or “scripts” for responding. It is precisely the demonstration of such range and flexibility in responding to the challenges of interpersonal interaction, when considered at the individual level of analysis, that many writers think of as social competence (e.g., Bukowski, Rubin, & Parker, 2001; Rose-Krasnor, 1997).

Relationships

Relationships introduce a second and higher-order level of complexity to children’s experiences with peers. Relationships refer to the meanings, expectations, and emotions that derive from a succession of interactions between two individuals known to each other. Because the individuals are known to each other, the nature and course of each interaction is influenced by the history of past interactions between the individuals as well as by their expectations for interactions in the future. It has been suggested that the degree of closeness of a relationship is determined by such qualities as the frequency and strength of influence, the diversity of influence across different behaviors, and the length of time the relationship has endured. In a close relationship, influence is frequent, diverse, strong, and enduring. Alternatively, relationships can be defined with reference to the predominant emotions that participants typically experience in them (e.g., affection, love, attachment, or enmity). Hinde (1979) further suggests that an essential element of a relationship is commitment or the extent to which the partners accept their relationship as “continuing indefinitely or direct their behaviors toward ensuring its continuance or toward optimizing its properties” (p. 29). Finally, it is important to note that, although as social scientists we may speak of abstract categories of relationships (e.g., sibling, best friend, or enemy), children view each instance of these relationships in a particularized way; to children, relationships of even the same general category are not interchangeable.

As a form of social organization, dyadic relationships share features with larger social organizations, such as a family, a class, or a team. In a particularly insightful analysis, McCall (1988) noted that dyads, like larger organizational structures, undergo role differentiation, specialization, and division of labor: “Members’ lines of action differ one from the other yet remain interdependent in certain ways” (p. 473). Moreover, participants in a relationship are aware that their relationship, though it may be very much their own local creation, is supported by an objectified, institutionalized social form: “When persons say they are friends, usually they can point to cultural images, rules of conduct, and customary modes of behavior to confirm their claims” (Suttles, 1970, p. 98). In addition, parties to a relationship have a sense of shared membership and belonging: “A sense of shared fate tends to arise as members discover that the surrounding world treats them not so much as separate individuals but rather as a couple, or unit” (McCall, 1988, p. 471). Finally, the creation of a shared culture is a vital part of dyadic relationships. This shared culture includes normative expectations regarding appropriate activities, patterns of communication and revelation, relations to external persons and organizations, and so on. It also includes private terms, or neologisms, for shared concerns or common activities, and rituals, or “dyadic traditions,” arising from the routinization of recurrent dyadic activities (such as meeting at the same place after school, flipping a special coin to resolve a dispute, or engaging in an exclusive “buddy shake” to mark a joint promise or planned behavior).

These are all features that relationships have in common with other, larger social organizations. However, McCall indicates that there are certain attitudinal features of the participants in a dyadic relationship that are distinct to this level of social organization and vital to understanding its functioning and impact on interactions and individuals. For example, unlike most social organizations, dyadic relationships do not vary in membership size. Having only two members, the dyad is peculiarly vulnerable, for the loss of a single member terminates the dyad’s existence. Because members appreciate this vulnerability, issues of commitment, attachment, and investment loom larger in dyadic relationships than in other forms of social organization. Indeed, an understanding of the surface behavior of members of relationships can be elusive unless note is taken of the deeper meaning of behavior in relation to the relationship’s mortality. This same sense of mortality is likely to contribute to a special sense of uniqueness (“there has never been a friendship quite like
 peers” and to what McCall calls a “sense of consecration,” or a feeling that each member must take responsibility for what happens in the relationship.

Friendship

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

First, there is widespread agreement that friendship is a reciprocal relationship that must be affirmed or recognized by both parties. Reciprocity is the factor that distinguishes friendship from the nonreciprocal attraction of only one partner to another. From an assessment perspective, methods that do not verify that the perception of friendship is shared between partners prove difficult because children are sometimes motivated by self-presentational goals to designate as friends other children who do not view them as friends in return. Thus, in the absence of assessing reciprocity, methods of identifying friends may confuse desired relationships with actual ones.

A second point of consensus is that reciprocity of affection represents an essential, though not necessarily exclusive, tie that binds friends together (Hays, 1988). The interdependence of the two partners derives primarily from socioemotional rather than instrumental motives. It is customary for children to seek one another out for instrumental reasons. Similarity of talents or interests may bring together children who might not otherwise interact. For example, work and sports teams, musical groups, and even delinquent gangs include members who are not necessarily friends. Similarities or complementarities of talents and interests may lead to friendship and can help sustain them; however, they do not constitute the basis of the friendship itself. The basis is reciprocal affection.

Third, friendships are voluntary, not obligatory or prescribed. In some cultures and in some circumstances, children may be assigned their “friends,” sometimes even at birth (Krappman, 1996). Although these relationships may take on some of the features and serve some of the same interpersonal ends as voluntary relationships, most scholars would agree that their involuntary nature argues against confusing them with friendship.

Until recently, the study of children’s dyadic relationships with peers was focused almost exclusively on the study of friendship. Researchers are now turning to the study of mutual antipathies and enmities (e.g., Abecassis, Hartup, Haselager, Scholte, & van Lieshout, 2002; Hodges & Card, 2003). Whereas the topic of disliking is certainly not new (e.g., Hayes, Gershman, & Bolin, 1980), the emphasis of recent research has been on the frequency of mutual antipathies, their correlates, and their developmental significance.

A final point is that relationships must be understood according to their place in the network of other relationships. For example, children’s friendships are influenced by the relationships they have at home with parents and siblings. Children’s conceptualizations and feelings about their primary relationships are internalized and lead to (a) expectations about what relationships outside of the family might and should be like, and (b) particular interpersonal behaviors and interactions with peers that reflect their internalized models of relationships (Belsky & Cassidy, 1995). Whereas parent-child relationships may influence the early development and maintenance of children’s peer relationships, it would make sense to expect that the relations between relationship systems become increasingly reciprocal and mutual with increasing child age: The quality of the child’s peer relationships is likely to influence the quality of the parent-child relationship and perhaps even the relationship between the child’s parents.

Groups

A group is a collection of interacting individuals who have some degree of reciprocal influence over one another. Groups can be formed spontaneously, out of common interests or circumstances, or due to formal external structures (e.g., groups of students organized into classes in school). Hinde (1979) suggests that a group is the structure that emerges from the features and patterning of the relationships and interactions present in a population of children. Accordingly, groups possess properties that arise from the manner in which the relationships are patterned but are not present in the individual relationships themselves. Examples of such properties include cohesiveness, or the degree of unity and inclusiveness exhibited by the children or manifest by the density of the interpersonal relationships; hierarchy, or the extent of intransitivity in the ordering of the individual relationships along interesting dimensions.
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(e.g., If Fred dominates Brian and Brian dominates Peter, does Fred dominate Peter?); and homogeneity or homophily, or consistency across members in the ascribed or achieved personal characteristics (e.g., sex, race, age, intelligence, or attitudes toward school). Finally, every group has norms, or distinctive patterns of behaviors and attitudes that characterize group members and differentiate them from members of other groups.

Many of our most important means for describing groups speak to these core characteristics or processes. Thus, researchers may address the degree to which the relationships and interactions in a group are segregated along sex or racial lines (e.g., Killen, Crystal, & Watanabe, 2002; Killen, Lee-Kim, McGlothlin, & Strangor, 2002); they may compare the rates of social isolation among groups that differ in composition; or they may investigate the extent to which a group’s hierarchies of affiliation, dominance, and influence are linear and interrelated. In addition, group norms can be used as a basis for distinguishing separate “crowds” in the networks of relationships among children in high school (e.g., Brown, 1989). The emergent properties of groups also shape the experiences of individuals in the groups (e.g., Espelage, Holt, & Henkel, 2003). Thus, crowd labels constrain, in important ways, adolescents’ freedom to explore new identities; status hierarchies influence the formation of new friendships; segregation influences the diversity of children’s experiences with others; and cohesiveness influences children’s sense of belonging. As such, the group can influence the individual. Indeed, many of the classic developmental studies concerned the peer group per se, including that of K. Lewin et al. (1939) concerning group climate, and Sherif, Harvey, White, Hood, and Sherif’s (1961) examination of intragroup loyalty and intergroup conflict. In addition, theorists stressing the importance of children’s peer experiences (e.g., Cairns, Xie, & Leung, 1996; Xie, Cairns, & Cairns, 1999, 2001) have generally conceptualized the group as an important developmental context that shapes and supports the behaviors of its constituent members.

In spite of the importance of the group, there has been, until recently, little attention paid to the assessment of group phenomena (see Bukowski & Sippola, 2001). This is surprising because researchers often cite experiences with peers with reference to the “peer group.” Cairns et al. (1996) argued that this neglect could be attributed to the complex conceptual and methodological issues related to the study of group structure and organization. However, recently a number of complex statistical procedures have allowed the study of peer groups and peer group effects on children.

Finally, it is worth noting that the construct that has dominated the peer literature during the past 25 years, namely that of popularity, is both an individual- and a group-oriented phenomenon. Measures of popularity refer to the group’s view of an individual in relation to the dimensions of liking and disliking (Bukowski & Hoza, 1989; Bukowski, Sippola, Hoza, & Newcomb, 2000; Parker, Saxon, Asher, & Kovacs, 1999). In this regard, popularity is a group construct and the processes of rejection and acceptance are group processes. Yet, despite this reality, most peer researchers treat popularity as characteristic of the individual (Asher, Parker, & Walker, 1996; Newcomb, Bukowski, & Pattee, 1993). This confusion exemplifies the significance of recognizing the inextricable links between different levels of analysis. As Bronfenbrenner (1944) wrote over 50 years ago, the study of the peer system requires the “envisagement of the individual and the group as developing organic units” (p. 75).

Culture

It is important to recognize that each of the social levels described earlier falls under the all-reaching umbrella of the cultural macrosystem (e.g., Bronfenbrenner & Crouter, 1983). By culture is meant “the set of attitudes, values, beliefs, and behaviors shared by a group of people, communicated from one generation to the next” (Matsumoto, 1997, p. 5). Cultural beliefs and norms help interpret the acceptability of individual characteristics and the types and ranges of interactions and relationships that are likely or permissible.

As it happens, the cultural and cross-cultural study of children’s peer interactions, relationships, and groups has a brief history. A central question asked in this body of work is rather intriguing: Do the “meanings” and significance of given social behaviors or social relationships differ from culture to culture, or are there cultural universals in interpreting given social behaviors and relationships? For example, is social competence defined in a similar fashion across cultures? And what about aggression or socially wariness? Are these behaviors similarly defined and interpreted from culture to culture? Are children’s friendships conceptualized in similar ways across culture? Are such relationships viewed as similarly significant from culture to culture? These are
but a few questions that are only now being examined by researchers the world over. Given that the majority of the world’s inhabitants do not reside in culturally Westernized countries, the cross-cultural work on peer interactions, relationships, and groups requires careful note: Child development is influenced by many factors. In any culture, children are shaped by the physical and social settings in which they live as well as culturally regulated customs, childrearing practices, and culturally based belief systems (Harkness & Super, 2002). The bottom line is that the psychological “meaning” attributed to any given social behavior is, in large part, a function of the ecological niche in which it is produced. If a given behavior is viewed as acceptable, then parents (and significant others) will attempt to encourage its development; if the behavior is perceived as maladaptive or abnormal, then parents (and significant others) will attempt to discourage its growth and development. And the very means by which people go about encouraging or discouraging the given behavior may be culturally determined and defined. Thus, in some cultures, the response to an aggressive act may be to explain to the child why the behavior is unacceptable; in others, physical discipline may be the accepted norm; in yet others, aggression may be ignored or perhaps even reinforced (for discussions, see Bornstein & Cheah, in press; Harkness & Super, 2002). Another issue is the degree to which cultures allow or encourage peer interactions. For example, in kin-based societies, such as Kenya, peer interactions are discouraged because parents fear the potential for competition and conflict (Edwards, 1992). It would appear most sensible for the international community of child development researchers not to generalize to other cultures their own culture-specific theories of normal and abnormal development. In this regard, we describe relevant extant research pertaining to cross-cultural similarities and differences in children’s peer interactions and relationships throughout this chapter.

Summary

To understand children’s experiences with peers, researchers have focused on children’s interactions with other children and on their involvements in peer relationships and groups. Analyses in each level—interactions, relationships, groups—are scientifically legitimate and raise interesting questions. However, researchers have not always demonstrated a clear understanding of the important ways in which processes at one level are influenced by those at the others. They have sometimes overlooked ways in which conclusions drawn at single levels of analysis can be limited. For example, the observation of two children at play can reveal the rates at which they display different behaviors and the patterning of these behaviors with respect to one another. It can be misleading, however, to attribute these characteristics of interaction solely to individual differences in social competence or temperament; one must also consider relational interdependencies—unique adjustments made by Person A and Person B to one another that define their particular relationship. And events transpiring in a given relationship also reflect realities outside the relationship; for example, tensions produced by individuals’ loyalties to other friends in the peer group may affect the quality of social interaction between two specific children.

Until recently, studying individual, dyadic, and group measures was challenging, both conceptually and statistically. Advances in multilevel modeling techniques and in the availability of more-or-less user-friendly software have given researchers the tools to examine the effects of group, dyadic, and individual variables simultaneously. These procedures can be used to assess how the effects of variables describing individual tendencies (e.g., aggressiveness, sociability, or inhibition) on an outcome (e.g., one’s subsequent aggressiveness, sociability, or reticence) will vary as a function of dyadic-relationship characteristics (e.g., quality of friendship; quality of the mother-child relationship). In turn, a researcher can assess variations in dyadic effects due to the characteristics of the groups in which they are embedded. The use of these techniques is nearly perfectly suited to some forms of peer relationships research. They have been used with success already (e.g., Kochenderfer-Ladd & Wardrop, 2001).

Yet, despite the remarkable methodological advantages of procedures, such as multilevel modeling, they alone cannot deal with the conceptual ambiguity of many measures currently used in peer research. Specifically, a measure that putatively assesses one level of social analysis may, to some extent, reflect phenomena at another level. For example, having dyadic friendships with aggressive peers, or belonging to an aggressive peer group may reflect individual tendencies such as sociability, risk-taking, and tolerance of aggressiveness.
and those who are aggressive. At the same time, friendships with aggressive others also carry meaning at the relationship (dyadic friendship) or group levels. Thus, when researchers are examining the effects of group membership, they must also distinguish between the effects of the group per se and the effects of having dyadic relationships in that group. This problem is especially important when one wishes to distinguish between friendship effects and group effects. To the extent that a child’s friendships are likely to be embedded in the child’s group, researchers need to carefully account for all of these effects and to distinguish between them. Attempts to distinguish between the effects of friendship and the effects of belonging to a peer group are inadequate, or at least limited, when the effects of only one friend are accounted for. In such an instance, some “group effects” may actually be “friendship effects” or the other way around.

Finally, our emphasis on multiple levels of analysis provides us with a basic conceptual model of social competence. Researchers have often treated measures of peer experiences (e.g., sociometric status) as indices of social competence. Our view is that social competence in the peer system refers to a child’s capacity to engage effectively and successfully at each level of analysis and in his or her relevant culture. A competent child will be able to (a) become engaged in a peer group structure and participate in group-oriented activities, (b) become involved in satisfying relationships constructed on balanced and reciprocal interactions, and (c) satisfy individual goals and needs and develop accurate and productive means of understanding experiences with peers on both the group and dyadic levels.

THEORIES RELEVANT TO THE STUDY OF CHILDREN’S PEER INTERACTIONS, RELATIONSHIPS, AND GROUPS

Personality Theorists

*Psychoanalytic Perspectives*

Psychoanalytic or neo-pseudoanalytic theorists have rarely ascribed developmental significance to children’s peer interactions or relationships. Instead, they regard much of the child’s development as resulting from parental behavior and the quality of the parent-child relationship. Perhaps the only psychoanalytically oriented theorist to ascribe developmental significance to children’s peer relationships is Peter Blos. For Blos (1967), the major event of adolescence is the process of individuation by which adolescents restructure their childhood relationships with their parents and strive to achieve qualitatively different relationships with peers. Individuation involves renegotiating dependency relationships with parents; such renegotiation is precipitated, in part, by adolescent sexual drives. It also involves the introduction of new themes into relationships with peers. Responding to erotic drives, the adolescent turns toward the peer group as a means of finding sexual outlets and venues of emotional closeness; previously, such closeness was available only from parents.

As a function of restructuring their relationships with parents, adolescents come to experience turmoil and anxiety accompanied by feelings of despair, worthlessness, discouragement, and vulnerability. According to Blos, adolescents’ capacities to cope with these feelings and experiences rest with their ability to establish qualitatively distinct forms of supportive relationships with peers. In the process of separating from parents and prior to achieving a state of personal autonomy, adolescents turn to peers for “stimulation, belongingness, loyalty, devotion, empathy, and resonance” (Blos, 1967, p. 177).

One potential pitfall of the individuation process for adolescents is that some teenagers become overly dependent on peers, conforming to the norms and standards of the group too readily as part of their search for security outside the family. Blos (1967) argued that, in such cases, dependence on peers is problematic because it precludes the promotion of independence and autonomy. But more generally, it is argued that the peer group is a major determinant of an adolescent’s ability to achieve a sense of autonomy and independence from the family.

The effects of the psychoanalytic tradition on peer relationships research can be seen most strongly in two areas of research. The first one takes its inspiration from the argument embedded in *attachment theory* (Bowlby, 1969) that peer relationships are motivated by a human need for relatedness. According to this view, being associated with others increases security because it reduces anxiety and promotes the internalization of positive relational schemas of others. As children develop mechanisms to distinguish between friends and
enemies, they are increasingly able to manage their emotions and behavior. A second idea taken from psychoanalytic theory has appeared more recently. Sandstrom and Cramer (2003) applied the concept of defense mechanisms to the understanding of girls’ responses to rejection. Their findings indicate that the use of denial and projection following rejection vary as a function of sociometric status with their use highest among rejected and neglected girls. They point to the potential adaptive benefits of this use.

Sullivan’s Theory of Personality Development

In his developmental model of interpersonal relationships, Sullivan characterized children’s peer relationships during the early childhood and the early school-age years as organized largely around play and common activities. During the juvenile period (from approximately age 7 to 9 years), children become increasingly concerned about their place in the peer group as a whole and a sense of belonging to the group becomes increasingly important.

As children entered early adolescence, Sullivan proposed that they begin to develop “chumships” or close, intimate mutual relationships with same-sex peers. As a relationship between “co-equals,” chumships were distinct from the hierarchical relationships that children experienced with their parents. Accordingly, Sullivan argued that this close relationship was a child’s first true interpersonal experience based on reciprocity and exchange between equals and that the function of peer relationships was to promote a sense of well-being. He proposed that it was in chumships that children had their first opportunities to experience a sense of self-validation. This validation would emanate, in large part, from their recognition of the positive regard and care that their chums held for them. Sullivan went so far as to argue that the positive experiences of having a “chum” in adolescence would be so powerful as to enable adolescents to overcome trauma that may have resulted from prior family experiences. Conversely, Sullivan believed that the experience of being isolated from the group, during the juvenile period, would lead a child to have concerns about his or her own competencies and his or her acceptability as a desirable peer. Consequently, Sullivan suggested that children who are unable to establish a position in the peer group would develop feelings of inferiority that could contribute to a sense of psychological ill-being. One posited outcome of the lack of supportive chumships was the development of loneliness, or “the exceedingly unpleasant and driving experience connected with the inadequate discharge of the need for human intimacy” (Sullivan, 1953, p. 290).

Symbolic Interactionism

Following the lead of William James (1890), who posited that humans have “an innate propensity to get ourselves noticed, and noticed favorably, by our kind” (p. 293), Mead (1934) argued that people defined themselves according to how they believed they were perceived by others. To Mead, for example, the ability to self-reflect, to consider the self in relation to others, and to understand the perspectives of others was largely a function of participation in organized, rule-governed activities with peers. He suggested that exchanges among peers, whether experienced in the arenas of cooperation or competition, conflict or friendly discussion, allowed the child to gain an understanding of the self as both a subject and an object. Understanding that the self could be an object of others’ perspectives gradually evolved into the conceptualization of a “generalized other” or an organized and coordinated perspective of the “social” group. In turn, recognition of the “generalized other” led to the emergence of an organized sense of self. Thus, according to symbolic interactionist theory, exchanges between the individual and the peer group are essential to the formation of a “self” concept and a concept of the “other,” two constructs thought to be mutually interdependent.

Cognitive Developmental Perspectives

The Piagetian Perspective

Piaget (1932) suggested that children’s relationships with peers could be distinguished, in both form and function, from their relationships with adults. The latter relationships were construed as being complementary, asymmetrical, and falling along a vertical plane of dominance and power assertion. As such, children’s interactions with adults about cognitions, ideas, and beliefs were thought to be marked by more emotional wariness and less openness and spontaneity than their interactions with age-mates. By contrast, peer exchanges allowed children to actively explore their ideas rather than to risk their devaluation and criticism by adult authority figures. It was also proposed that children come to accept adults’ notions, thoughts, beliefs, and rules, not necessarily because they understand them, but rather because obedience is viewed as required. Along the
same lines, adults were less likely to follow the dictates of children. Peer relationships, alternatively, were portrayed as being balanced, egalitarian, and as falling along a more-or-less horizontal plane of dominance and power assertion. Thus, it was in the peer context that children could experience opportunities to examine conflicting ideas and explanations, to negotiate and discuss multiple perspectives, to decide to compromise with, or to reject, the notions held by peers. These peer interactive experiences were believed to result in positive and adaptive developmental outcomes for children, such as the ability to understand others’ thoughts, emotions, and intentions.

Empirical support for these contentions is drawn from neo-Piagetian research demonstrating that when children work together to solve given problems, they are more likely to advance their knowledge base through discussion than if they work independently and alone. Developmental change occurs because differences of opinion provoke cognitive disequilibria that are sufficiently discomforting so as to elicit attempts at resolution. Each interactor must construct, or reconstruct, a coordinated perspective of the original set of ideas to re-instate a sense of cognitive equilibrium.

From this perspective, it is intrapersonal cognitive conflict that evokes a search for homeostasis and resultant developmental change. This intrapersonal conflict may be instigated by disagreements about ideas, thoughts, beliefs; however, it is unlikely that mean-spirited interpersonal conflict and hostility brings with it cognitive advancement. Recent views on the role of conflict center on the notion that disagreements between peers about things personal, interpersonal, and impersonal are best resolved through the cooperative exchange of explanations, questions, and reasoned dialogue (e.g., Laursen et al., 2001; Shulman & Laursen, 2002). If the exchange of conflicting ideas is marked by hostility, disregulated or disabling emotions are not likely to promote cognitive growth and development.

Contemporary perspectives on the role of peer exchange for developmental growth can be seen in the work of co-constructivist thinkers such as Azmitia (Azmitia, Lippman, & Ittel, 1999; Azmitia & Montgomery, 1993) and Rogoff (1997). These writers introduce the notion that the quality of the relationship between the peers who are interacting with each other may contribute to cognitive and social-cognitive growth and development. For example, friends can challenge each other with relative impunity. Given that friends are more sensitive to each others’ needs, and more supportive of each others’ thoughts and well-being than non-friends, it may be that children are more likely to talk openly and challenge each others’ thoughts and deeds in the company of friends than nonfriends. If this were the case, one would expect exchanges between friends to be more promoting of cognitive and social-cognitive growth than nonfriend peer exchanges. Data supportive of this view are reviewed in later relevant sections.

**Vygotsky’s Perspective**

According to Vygotsky (1978), cognitive growth and development are a function, in large part, of interpersonal exchange. Vygotsky invoked the principle of the “zone of proximal development” (ZPD) to explain the significance of social interaction. The ZPD represented the distance between what the child could do independently and what he or she could do with the collaboration or assistance of others. Vygotsky indicated that typically assistance was provided by the child’s parents. Researchers such as Tudge (1992; Hogan & Tudge, 1999) and Rogoff (1997) have argued that the child’s peers can play the role of co-constructivist. Thus, pairing with a more competent, “expert” peer may assist the child’s movement through the ZPD (e.g., Duran & Gauvin, 1993).

One difference between the Piagetian and Vygotskian perspectives of the links between peer interaction, peer relationships, and growth and development lies in Piaget’s belief that it was peer conflict that evoked change, whereas Vygotsky contended that it was cooperation and the pooling of ideas that promoted change. Contemporary accounts suggest that conflicting ideas and differences in opinion actually elicit cooperation between partners. If partners are positively disposed to one another, it behooves them to discuss their differences, to negotiate, to compromise—in short, to cooperate and to move forward, not only cognitively, but also emotionally in their relationship. Thus, studies of the role that conflict plays in cognitive and social-cognitive growth include, in the phenomenon’s definition, components of disagreement as well as explanation, questions, agreements, and compromise. A rapprochement between the Piagetian and Vygotskian positions would suggest that intrapersonal cognitive conflict triggers the child’s attempts to regain some semblance of cognitive homeostasis. If such intrapersonal cognitive conflict is associated with conflictual, negative-spirited interpersonal exchange, cognitive growth is less likely to result than
anger, fear, or some other disabling emotion. Alternatively, if cognitive conflict is associated with “reasoned dialogue” (Damon & Killen, 1982), cooperative co-construction may occur resulting in a new, more cognitively mature perspective.

In summary, research based on the constructivist theories of Piaget and Vygotsky reveals that:

- Children can, and do, make cognitive advances when they cooperatively exchange and discuss conflicting perspectives on various issues (MacDonald, Miell, & Morgan, 2000).
- Children working together can solve problems that neither partner is capable of solving alone (Golbeck, 1998).
- Discussing problems with a peer who has superior knowledge is more likely to evoke intrapersonal conflict and cognitive advancement than discussions with a less competent peer (Duran & Gauvain, 1993; Garton, 2001; Tudge, 1992).
- Transactive exchanges during which children openly criticize each others’ ideas and clarify and elaborate their own ideas are more often observed in the company of friends than of nonfriends (e.g., Azmitia & Montgomery, 1993).

**Learning and Social Learning Theories, Peer Interaction, and Peer Relationships**

Although its influences are less explicit than implied, social learning theory has had a powerful effect on the study of peer interactions, perhaps more so than any other perspective. The traditional learning theory perspective has been that children are behavior control and behavior change agents for each other. Peers punish or ignore nonnormative social behavior and reward or reinforce positively those behaviors considered culturally appropriate and competent. Thus, to the extent that children behave in a socially appropriate manner, they develop positive relationships with their peers; to the extent that children behave in a socially incompetent or nonnormative manner, peer rejection may result.

Perhaps the most relevant and influential social learning was that formulated originally by Bandura and Walters (1963). In their monograph, *Social Learning and Personality Development*, Bandura and Walters noted that children can learn novel social behaviors by observing others. Moreover, children could use observational information about the consequences of specific social behaviors to guide their own exhibition or inhibition of these behaviors. This modeling perspective provides a powerful argument for how the social behaviors of children are quickly and effectively organized, reorganized, and redirected. Observational learning promotes adaptation to new circumstances and new relationships (Cairns, 1979). As Cairns noted, however, once learned, social behaviors are subject to maintenance and change; thus, it is argued that the demonstration of socially learned behaviors will be maintained or inhibited by its actual or expected consequences. Further, the social contexts in which reinforcement and punishment occur (or are expected to occur) matter. The source of the reinforcement or punishment, how, when, and where the consequences are administered, and whether the child believes that he or she can actually produce the desired behavior all affect the production, reproduction, or inhibition of the given behavior. For example, Bandura (1989) speculated that children set standards of achievement for themselves and that they are likely to self-administer reinforcement when the standards are met and punishment when they are not. Self-reinforcement is applied when children see themselves as having exceeded the norms for their relevant comparison group of peers; self-punishment is consequent to having failed to meet perceived group norms.

Also, children’s beliefs, cognitions, and ideas about the administrators of rewards/punishment can influence the strength of the given behaviors. Is the administrator a competent or incompetent peer, an aggressive or nonaggressive age-mate, or a younger or older child? Moreover, the age of the child who is processing this social information must assuredly be of some significance. To the extent that researchers have generally ignored these issues, social learning theory still has some way to go in advancing an understanding of the establishment, maintenance, and dissolution/inhibition of children’s peer-directed behaviors.

**Human Ethology**

Ethology is “the subdiscipline of biology concerned with the biological bases of behavior, including its evolution, causation, function, and development” (Cairns, 1979, p. 358). Although there is no particular ethological theory pertaining specifically to the evolutionary significance of peer interaction or peer relationships,
Theories Relevant to the Study of Children’s Peer Interactions, Relationships, and Groups

the methods and constructs used by animal behaviorists have often been adopted by those who study children’s social behaviors, peer relationships, and the structural dynamics of the peer group (e.g., Hawley, 2003). To the extent that Bowlby’s (1973) ethologically oriented theory of parent-infant attachment relationships has come to influence the study of peer relationships, some consideration of human ethological theory is warranted.

The questions asked by ethologists were outlined by Tinbergen (1951). He suggested that when an organism produces a given behavior, the scientist must ask: (a) Why did the individual demonstrate the particular behavior at the specific time she or he did? (b) How did the individual come to produce such a behavior at such times? and (c) What is the functional significance or survival value of the produced behavior? These questions focus concern on features of motivation, learning and development, and evolutionary adaptation, respectively.

A central tenet of ethological theory is that social behavior, relationships, and organizational structures are limited by biological constraints related to their adaptive, evolutionary function (Hinde & Stevenson-Hinde, 1976). Thus, aggression, for example, is viewed as a means by which members of the species survive; protect themselves, their significant others, and their progeny; and ensure reproductive success (Lorenz, 1966). Altruism is also seen as a basic facet of human nature, ensuring survival of the species. Likewise, the attachment relationship formed during infancy between parent and child not only guarantees the protection of the young from discomfort and threatening predators but also provides the child with an internalized “working model” (Bowlby, 1973) of what human relationships could, should, or might be like. In this latter case, the quality of the primary relationship engenders a set of internalized relationships expectations that affect the initiation and maintenance of extrafamilial (e.g., peer) relationships.

Given the assumption that behavior is best understood when observed in natural settings, ethological theory has influenced contemporary methodologies. Thus, investigators have devoted considerable effort to distinguish observationally between different forms and functions of what, on the surface, appear to be the same basic behavioral phenomena. For example, one can distinguish between physical, verbal, and relational aggression (the forms) and between hostile and instrumental aggression (the putative functions; see Little, Jones, Henrich, & Hawley, 2003). Such distinctions are drawn on the basis of examining the gestures and facial expressions of the interacting individuals, as well as the ecological (venues) and interpersonal (quality of relationships) contexts in which social interactions occur.

Ethological theory and the questions derived from it evoke analyses of the psychological meanings of different forms of the same behavior (Hawley, 2003). For example, do instrumental and hostile aggressions have different developmental origins and different proximal and distal causes (e.g., Prinstein & Cillessen, 2003)? Similarly, does the frequent expression of behavioral solitude when engaging in constructive activity have different developmental origins and different proximal and distal causes than the frequent expression of behavioral solitude when observing others from afar (Coplan, Rubin, Fox, Calkins, & Stewart, 1994; Henderson, Marshall, Fox, & Rubin, 2004)? Likewise, does a given behavior have the same psychological meaning when produced by a 2-, 4-, and 10-year-old? And finally, does a given behavior have the same psychological meaning when produced by children of the same age, but in different cultures? These are questions pertinent to the study of peer interaction. And, given the normalcy/abnormalcy of social behaviors in different contexts and at different ages (Cillessen & Mayeux, 2004), it is also clear how questions derived from ethological theory are relevant to the study of children’s peer relationships.

Group Socialization Theory

If there was a publication that brought the study of the peer group to the attention of the general reader during the past 10 years it was Judith Rich Harris’s essay on group socialization theory (1995) and the book, The Nurture Assumption, based on it (1998). Issued just after the writing of our earlier Handbook chapter, Harris’s essay and book claimed: (a) The effects of parenting on development were, at best, small; (b) the effects of genes on development were strong; and (c) the effect of peer relationships, and especially the peer group, were strong also. At the risk of oversimplification, Harris’s ideas can be summarized as follows: First, she criticized research on parenting as being methodologically and substantively flawed. She objected to the claim that parents influence their children because most studies of parenting failed to produce strong effect sizes and were methodologically flawed due to their use of correlational designs rather than of explicitly experimental
methods. Second, in support of her arguments regarding the influence of genes, she appropriately called on findings that point to genetic effects on various aspects of development. Third, Harris’s claims about the effects of the peer system were, in part, predicated on the view that young people are driven by an atavistic desire to be part of a group. According to Harris, an important repercussion of these tribal motivations is that young people, in an effort to be part of a group, will change their behavior in response to group norms and expectations.

Thus, it was proposed that once children find themselves outside the home, they take on the norms prevalent in the groups in which they spend their time... and, for the most part, those groups comprise other children. Drawing from social psychological perspectives on the significance of group norms (a motivation to “fit in”), in-group biases and out-group hostilities, and social cognitive views of group processes, it was argued that children’s identities develop primarily from their experiences in the peer group. Although Harris’s (1998) views that parent-child and other dyadic relationships (including friendships) are relatively unimportant for individual development has drawn many criticisms (e.g., Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000), the elements of her thesis that stressed the significance of peer interactions, relationships, and groups for normal and abnormal development provided some vindication to peer researchers. For decades, these researchers have been challenged by theorists, researchers, and policymakers who have cited the primacy of parenting and the parent-child relationship. With Harris’s challenge, a gauntlet was dropped; researchers were called on to address some central questions about the causal roles that genes, biology, family, and peers play in child and adolescent adjustment and maladjustment.

The claims of this book were presented and debated in the review sections of newspapers and magazines and on many “prime time” television programs. The essay managed to win some public praise, typically from people who do not study peer relationships. For good reason, persons who have been advocates of behavioral genetic explanations of a wide variety of social behaviors and personality characteristics (e.g., Pinker, 2002; Rowe, 1995) were supportive of Harris’s (1995, 1998) claims of genetic influence. Scholars who study parenting wrote reasoned critiques of Harris’s thesis regarding the relative unimportance of parental socialization (Collins et al., 2000). Perhaps at the writing of the next version of this Handbook chapter, reliable evidence pertaining to the power of peer group influence will be presented as supporting the provocative thesis proposed by Harris. In the meantime, contemporary research (described later) on the ways in which the composition of peer networks change as a function of children’s individual interests and behavioral characteristics may be taken as some evidence of the transactional push-and-pull between individual inclinations and peer group norms.

PEER INTERACTIONS, RELATIONSHIPS, AND GROUPS: A DEVELOPMENTAL PERSPECTIVE

Children’s peer experiences become increasingly diverse, complex, and integrated with development. In some cases, the impetus for these developments rests in children (i.e., changes in interpersonal understanding or interpersonal concerns), while others derive from situational or contextual phenomena (Bierman, 2003). In the following sections, we review many developmental milestones in the interactional (changes in the frequency or forms of specific behaviors), relational (changes in qualities of friendships or patterns of involvement in friendships), and group (changes in configurations of and involvement in cliques and crowds) levels of children’s involvement with other children.

Infancy and the Toddler Years

Research on the normative development peer interactions and relationships during infancy and toddlerhood has waned during the past decade. Instead, the focus has appeared to shift from normative development to individual differences to the extent that toddlers initiate social interaction and are capable of regulating social and emotional behavior.

Interaction

Early researchers of children’s peer experiences were impressed by what they regarded as the significant social shortcomings in infants. Buhler (1935), for example, reported that prior to the first 6 months of life, babies were oblivious to each other’s presence. And it was argued that throughout much of the 1st year infants were interested in each other as objects but not as
social partners with whom the development of a relationship was possible (e.g., Maudry & Nekula, 1939). Such a view appears less often in contemporary readings, but it has not disappeared completely; for example, it has been noted that the peer interactions of infants are diffuse and fragmented. These interactions are seen as illustrating the inability of babies to comprehend the social and cognitive needs, capacities, or zones of proximal development of their age-mates (Hay, 1985).

Infants do have obvious social limitations. Yet, careful observation of infants reveals remarkable strides taken during the 1st year of life. These include (a) the seemingly intentional direction of smiles, frowns, and gestures to their play partners (Hay, Nash, & Pederson, 1983); (b) the careful observation of peers representing a clear sign of social interest (Eckerman, 1979); and (c) the response, often in kind, to their play partner’s behaviors (Mueller & Brenner, 1977). During the 2nd year of life, toddlers demonstrate monumental gains in their social repertoires. With the emergence of locomotion and the ability to use words to communicate, interactive bouts become lengthier (Eckerman & Stein, 1990), and toddler play becomes organized around particular themes or games. According to Ross (1982), the typical toddler “game” involves extended and patterned interchanges characterized by the mutual exchange of gaze, the direction of social actions to one another, the production of appropriate responses to these social actions, and the demonstration of turn-taking behaviors. Often, these toddler games are marked by reciprocal imitative acts. Reciprocity of imitation suggests not only that a given child is socially interested in the playmate to the point at which she or he is willing to copy that playmate’s behavior but also that she or he is also aware of the partner’s interest in him or her (i.e., an awareness of being imitated). Mutual imitation, which increases rapidly during the 2nd year, appears to lay the basis for later emerging cooperative interchanges involving pretense (Howes, 1992).

In summary, social skills in toddlerhood comprise (a) the ability to coordinate behavior with that of the play partner; (b) imitation of the peer’s activity and an awareness of being imitated; (c) turn-taking that involves observe peer—respond to peer—observe and wait—respond to peer interchange sequences; (d) the demonstration of helping and sharing behaviors; and (e) the ability to respond appropriately to the peer partner’s characteristics.

These developments promote more effective social commerce between toddlers and contribute a generally positive affective quality to their interaction (Hay, Castle, Davies, Demetriou, & Stimson, 1999). However, toddler social interaction is also marked by conflict (e.g., Hay, Castle, & Davies, 2000; Hay & Ross, 1982; Rubin, Hastings, Chen, Stewart, & McNichol, 1998). Rubin et al. (1998) found that over 70% of 25-month-old children participated in a conflict situation at least once in a 50-minute laboratory setting. In a comparable setting, Hay and Ross (1982) observed 87% of 21-month-old toddlers engaged in at least one conflict. As such, it appears that conflict is neither infrequent nor limited to a small percentage of toddlers.

Indeed, it appears as if many of those toddlers who frequently instigate conflicts with peers are the most socially outgoing and initiating (National Institute of Child Health and Human Development Early Child Care Research Network, 2001; Rubin et al., 1998). It is also the case that (a) toddlers who lose conflicts are more likely than the initial victor to initiate the immediately subsequent conflict (Hay & Ross, 1982); and (b) toddlers are highly attentive to, and are more likely to imitate and initiate interactions with, highly sociable age-mates (Howes, 1983, 1988). Taken together, these data suggest that during the 2nd year of life, toddlers do display social skills of modest complexity.

**Relationships**

It has been demonstrated that toddlers are more likely to initiate play, direct positive affect to, and engage in complex interactions with familiar than unfamiliar playmates (Howes, 1988, 1996). But can familiarity be equated with the existence of a relationship? According to Ross and Lollis (1989), toddlers do develop positive relationships as they become increasingly familiar with one another. Indeed, these toddler relationships allow the observer to predict the sorts of interchanges that will transpire between dyadic partners (Ross, Conant, Cheyne, & Alevisos, 1992). It is the predictability of the quality of interchange that marks a dyad as constituting a friendship.

Ross and colleagues have carried out an elegant series of studies to demonstrate that toddlers can and do develop relationships and that their relationships can be characterized in several different ways. Ross et al. (1992) begin by noting that a relationship may be inferred when:
Neither the characteristic behavior of Child One, nor the behavior that others typically direct to Child Two, nor the independent, additive influences of both factors taken together are sufficient to predict the behavior of Child One to Child Two. In that sense, relationships cannot be derived from the individual characteristics of the participants; the relationship itself influences the interaction between them. (p. 1)

To this end, Ross and colleagues have demonstrated that toddlers develop reciprocal relationships, not only by the mutual exchange of positive overtures, but also by agonistic interactions. Positive interactions are directed specifically to those who have directed positive initiations to the child beforehand; conflict is initiated specifically with those who have initiated conflictual interactions with the child beforehand.

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

Groups

Even young toddlers spend much of their time in small groups such as with day-care mates. But there is not much empirical evidence that this level of social organization is salient to, or influential on, these young children. Nevertheless, some authors (e.g., Legault & Strayer, 1991) have observed dominance hierarchies even in small groups of young toddlers, as well as in subsets of children who invest greater attention and interaction to one another than to outside nonmembers. Interestingly, some members of these groups appear more central to their functioning than others, perhaps illustrating the earliest examples of individual differences in popularity and influence.

New Directions

Major advances in the study of infants’ and toddlers’ peer interactions and relationships have derived primarily from examinations of individual differences in factors such as sociability, behavioral inhibition, conflict, and the regulation of emotional and behavioral tendencies. Much of this research meshes with the current Zeitgeist in which the study of developmental psychopathology dominates in many quarters. Thus, researchers have discovered that those toddlers who frequently initiate conflict with age-mates, especially those who are unable to regulate their emotions and behaviors, evidence difficulties of an externalizing nature in subsequent years (Hay et al., 2000; Rubin, Burgess, Dwyer, & Hastings, 2003). And those toddlers who evidence fearfulness and wariness when faced with unfamiliarity in social settings evidence difficulties associated with social reticence, shyness, and anxiety as preschoolers (e.g., Rubin, Burgess, & Hastings, 2002) and elementary school children (Reznick et al., 1986).

Because the focus appears to be turning primarily in the direction of the development of psychopathology, it is important to note that researchers are beginning to find that early individual differences in cooperative, sharing and helping behaviors presage consequent positive aspects of peer interaction. Thus, for example, Howes and Phillipsen (1998) have demonstrated that toddlers’ competent play with peers predicts socially competent activity at 4 years and less maladaptive interactive activity at 9 years. Whether individual differences in the peer interactional tendencies of infants and toddlers predict subsequent social relationship and/or group phenomena is, as yet, unknown.

Another new direction derives from the cross-cultural observation of toddlers. Researchers have recently found that Asian toddlers are more compliant than their North American counterparts (Chen, Rubin, Liu, Chen, Wang, & Li, 2003); and Chinese and Korean toddlers appear to be more socially inhibited than Italian and Australian toddlers (Chen et al., 1998; Rubin et al., in press). Why these early differences in social behavior exist is only now being explored. Researchers interested in children’s peer relationships would do well to examine whether such early cultural differences predict vari-
ability in the peer acceptance of children who best “match” their respective cultural norms for compliant and socially outgoing behaviors.

Early Childhood

Interaction

From 24 months to 5 years, the frequency of peer interaction increases and becomes more complex. Parten (1932) described six social participation categories that purportedly unfolded as stages as children matured. In order of presumed maturity, these categories included: unoccupied behavior, solitary play, onlooker behavior (the child observes others but does not participate in the activity), parallel play (the child plays beside but not with other children), associative play (the child plays and shares with others), and cooperative play (the child engages others in interaction that is well coordinated and defined by a division of labor). From her data, Parten concluded that between the ages of 2 and 5 years, children engage in increasing frequencies of associative and cooperative play and in decreasing frequencies of idle, solitary, and onlooker behavior.

A more critical reading of Parten’s study and subsequent attempts at replication, however, suggests a more complex set of conclusions (e.g., Rubin, Watson, & Jambor, 1978). To begin with, children at all ages engage in unoccupied, onlooking, solitary, parallel, and group activities. Even at 5 years, children spend less of their free play time in classroom settings interacting with others than being alone or near others (Rubin et al., 1978). Indeed, the frequency of “parallel” play appears to remain constant from 3-to-5 years (Rubin et al., 1978). Yet, despite its modest placement in Parten’s hierarchy of social participation, parallel play appears to serve as an important bridge to more truly interactive exchanges. More precise, sequential observations of preschool interaction reveal that parallel play often serves as an entrée into more complex, cooperative activity (Robinson, Anderson, Porter, Hart, & Wouden-Miller, 2003). Put another way, competent entry into ongoing peer activity appears to involve the ability to observe what the play participants are doing (onlooking activity), to approach and play beside potential play partners (parallel play), and, finally, to engage the players in conversation about the ongoing activity. A simple consideration of the frequency of particular forms of social participation masks the functional significance of the behavior. Watching and playing near, but not with, others are not necessarily immature. Rather, these behaviors may be sequenced in a competent manner to gain entry into an ongoing play activity.

Further attesting to the limits of Parten’s original social participation categories is the fact that the categories of solitary, parallel, and group behavior comprise a variety of play forms that differ in cognitive complexity (see Rubin, Fein, & Vandenberg, 1983, for a review). Thus, whether alone, near, or with others, children may produce simple sensorimotor behaviors (functional play, e.g., aimlessly bouncing a ball), construct structures from blocks or draw with crayons (constructive play), or engage in some form of pretense (dramatic play). These cognitive forms of play, when examined in their social context, reveal interesting developmental trends. For example, solitary-sensorimotor behaviors become increasingly rare over the preschool years, while the relative frequency of solitary-construction or exploration remains the same (Rubin et al., 1978). Furthermore, the only types of social interactive activity to increase over the preschool years are sociodramatic play and games-with-rules (see Goncu, Patt, & Kouba, 2002, for a recent review): Age differences are apparent only for particular forms of social participation. Thus, in contrast to Parten’s characterization, it does not appear to be a simple matter of solitary play disappearing over time and being replaced by social interactive activity. Importantly, it is the form that solitary or parallel or social activity takes that is of developmental significance.

Perhaps the most complex form of group interactive activity during the preschool years is sociodramatic play (Goncu et al., 2002). The ability to engage easily in this form of social activity represents mastery of one of the essential tasks of early childhood—the will and skill to share and coordinate decontextualized and substitutive activities. Researchers have reported that by the 3rd year of life, children are able to share symbolic meanings through social pretense (e.g., Howes, 1988). This is a remarkable accomplishment, as it involves the capacity to take on complementary roles, none of which matches real-world situations, and to agree on the adoption of these imaginary roles in a rule-governed context.

The ability to share meaning during pretense has been referred to as intersubjectivity (Goncu, 1993). Goncu (1993) has reported that quantitative differences are present in the extent to which the social interchanges
of 3- versus 4.5-year-olds comprise indices of shared meaning or intersubjectivity. For example, the social interactions of older preschoolers involve longer sequences or turns. With increasing age, play partners become better able to agree with each other about the roles, rules, and themes of their pretense. They are also better able to maintain their play interactions by adding new dimensions to their expressed ideas. These developments reflect the preschooler's capacity to take the perspective of the play partner and, even more important, reflect the increasing sophistication of preschooler's naive “theory of mind” (Watson, Nixon, Wilson, & Capage, 1999).

The demonstration of elaborate forms of social pretense during the preschool years is impressive. But is the experience of sociodramatic play developmentally significant? According to Howes (1992), sociodramatic play serves three essential developmental functions. First, it creates a context for mastering the communication of meaning. Second, it provides opportunities for children to learn to control and compromise; these opportunities arise during discussions and negotiations concerning pretend roles and scripts and the rules guiding the pretend episodes (Sawyer, 1997). Third, social pretense allows for a “safe” context in which children can explore and discuss issues of intimacy and trust. Researchers have demonstrated that engaging in sociodramatic play developmentally significant (Watson, Nixon, Wilson, & Capage, 1999).

In summary, as pretend play becomes more interactive, it serves increasingly sophisticated psychological functions. At first, social pretense provides opportunities for developing communication skills (Sawyer, 1997). Subsequently, it allows children opportunities to negotiate over roles, rules, and play themes and to practice a variety of roles in particular play scripts (Goncu, 1993). Thus, the addition of understanding pretense and sharing this understanding with others represents a significant milestone in the social lives of young children.

Beyond the developmental differences in how much children interact with one another or engage in cooperative endeavors requiring shared meanings, several other significant advances are made during the preschool period. For one, prosocial caring, sharing, and helping behaviors become more commonplace with increasing age. Researchers have demonstrated that 4-year-olds direct prosocial behavior to their peers more often than 3-year-olds (e.g., Benenson, Markovits, Roy, & Denko, 2003). And the disposition to behave in a caring, sharing, and helpful manner in early childhood appears rather stable (Eisenberg et al., 1999). Dodge, Coie, & Lynam (Chapter 12, this Handbook, this volume) note that aggression increases until age 3 and then declines.

Importantly, the nature of conflict changes from the toddler to the preschool period. During toddlerhood, most conflict appears to center on toys and resources; during the preschool years, conflict becomes increasingly centered on differences of opinion (Chen, Fein, & Tam, 2001; Laursen & Hartup, 1989)—a reflection of the child's growing ability to focus on others' ideas, attitudes, and opinions.

Finally, preschoolers spend a great deal of time simply conversing with their playmates. And their conversations reflect numerous interpersonal goals (e.g., negotiating roles and rules in play; arguing and agreeing; Hay et al., 2004). Older preschool-age children direct more speech to their peers than do their younger counterparts (Levin & Rubin, 1983). And they are more likely to try to make explicit communicative connections with their play partners’ ideas (Goncu, 1993; Sawyer, 1997). However, the successful outcome of verbally directed communication is predicted by its technical quality. Preschoolers whose language is comprehensible, who assure that they have obtained listener attention, and who are within arms' length of their social targets are more likely to meet their social goals than those whose language is not skillfully evinced (Mueller, 1972). Relatedly, throughout the preschool years, children demonstrate age-related increases in social-communicative competence. For example, they begin to alter their speech to suit the needs of their listeners (Shatz & Gelman, 1973). Similar adjustments to the characteristics of their social targets have been reported in studies of interpersonal problem solving overtures (Krasnor & Rubin, 1983). These data reflect developmental growth in metacommunicative awareness and “mind-reading” (Dunn, 1999).
(e.g., Sawyer, 1997). Studies of gestural communication actually shed light on Piaget’s original ideas concerning egocentric thought and speech. Piaget recognized the significance of gestural communication and wrote that in the explanations of young children, “gestures play as important a part as words.” (Piaget, 1959, p. 77). It may well be that Piaget’s “take” on communicative competence has been poorly understood, or at best, misjudged. In Piaget’s own research, he indicated that only 35% to 40% of young children’s utterances were “egocentric.” This leads to the conclusion that in almost 60% of the cases, young children demonstrated communicative competence. If one were to add to verbal expression the comprehensible use of gestures, preschoolers would clearly be regarded as communicatively skilled.

**Relationships**

During early childhood, children express preferences for some peers over others as playmates. It appears that one important influence on this process is that preschoolers are attracted to peers who are similar to the in some noticeable regard. For example, similarities in age and sex draw young children together. Furthermore, preschoolers appear to be attracted to, and become friends with peers whose behavioral tendencies are similar to their own, a phenomenon known as behavioral homophily (e.g., Kandel, 1978; Ryan, 2001).

Once preschoolers form friendships, their behavior with these individuals is distinctive from their behavior with other children who are familiar but not friends. Among the features that mark the friendships of preschool-age children are supportiveness and exclusivity (Sebanc, 2003). Children as young as 3.5 years direct more social overtures, engage in more social interactions, and play in more complex ways with friends than nonfriends (e.g., Dunn & Cutting, 1999; Dunn, Cutting, & Fisher, 2002). As well, preschool-aged friends tend to cooperate and exhibit more positive social behaviors with each other than with nonfriends (e.g., Dunn et al., 2002). Ladd, Kochenderfer, and Coleman (1996) have shown that not all friendships in early childhood are equally stable. Those friendships that involve higher levels of positive friendship qualities (e.g., validation) and lower levels of negative friendship qualities (e.g., low conflict) are most likely to be stable.

Typically, researchers who study friendship rely on children as informants about with whom they are friends. It has been argued that a “true” friendship is one that relies on friendship nominations from both dyadic partners; a unilateral, nonreciprocated friendship has often been taken to mean “wishful thinking” on the part of the single nominator. In keeping with this perspective, Vaughn (2001) recently reported that (a) older preschoolers are more likely to participate in reciprocated friendships than are younger preschoolers; (b) preschoolers who nominate each other as friends interact more frequently with each other than those dyads in which only a unilateral nomination of friendship is evinced.

Importantly, not all young children have a best friend. Approximately 75% of preschoolers have reciprocally nominated best friendships (Dunn, 1993). Friendless preschoolers are less likely than befriended children to initiate and maintain play with peers (e.g., Howes, Matheson, & Wu, 1992). And during this period of early childhood, the ability to make friends, friendship quality, and stability of young children’s friendships are associated with, and predicted by, social-cognitive and emotional maturity. For example, the abilities to understand emotional displays and social intent and to perspective-take are associated with friendship formation, maintenance, and friendship quality (Dunn & Cutting, 1999; Dunn et al., 2002; Ladd & Kochenderfer, 1996). Furthermore, the young child’s ability to regulate emotions is associated with and predictive of both the number of mutual friends and friendship quality (Walden, Lemerise, & Smith, 1999).

It is not only the positive aspects of behavior that differentiate preschool friendships from nonfriendships—compared to nonfriends, preschool friends also demonstrate more quarreling and more active (assaults and threats) and reactive hostility (refusals and resistance; Dunn & Cutting, 1999; Laursen & Hartup, 1989). Moreover, Hartup and his colleagues (Hartup, Laursen, Stewart, & Eastenson, 1988) demonstrated that preschool children engage in more conflicts with their friends than with neutral associates. These differences are best understood by recognizing that friends spend much more time actually interacting with each other than do nonfriends. Hartup and his colleagues also reported qualitative differences in how preschool friends and nonfriends resolve conflicts and in what the outcomes of these conflicts are likely to be. Friends, as compared with nonfriends, make more use of negotiation and disengagement, relative to standing firm, in their resolution of conflicts. In conflict outcomes, friends are more likely to have equal resolutions, relative to win or
lose occurrences. Also, following conflict resolution, friends are more likely than neutral associates to stay in physical proximity and continue to engage in interaction.

In summary, preschoolers behave differently with friends than nonfriends. Preschoolers engage in more prosocial behaviors as well as more conflicts when interacting with friends than with nonfriends. These conflicts are most likely to be resolved through negotiation, and the outcomes are usually equitable. These differences suggest that preschoolers view friendship as a unique context, separate and qualitatively different from their experiences with nonfriends.

Groups
Many researchers have found that the social dominance hierarchy is an important organizational feature of the preschool peer group (e.g., Hawley, 2002; Vaughn, 1999; Vaughn, Vollenweider, Bost, Azria-Evans, & Snider, 2003). And, in keeping with a central tenet of the ethological perspective, researchers have argued that dominance hierarchies develop naturally in groups to serve adaptive functions. In the case of preschool-aged children, dominance hierarchies appear to reduce overt aggression among members of the group. Observations of exchanges between children in which physical attacks, threats, and object conflicts occur reveal a consistent pattern of winners and losers. And children who are losers in object struggles rarely initiate conflict with those who have proven “victorious” over others or who have been victorious over them (Strayer & Strayer, 1976).

Summary
Even in early childhood, one can identify children who are more or less skilled in manipulating their peers or in meeting their interpersonal goals. Dominance hierarchies reflect primarily differences in children’s success in struggles over objects. However, achieving the acquisition of desired objects is only one of many interpersonal goals that preschool children may have. Consequently, it remains unknown whether preschool children who have risen to the top of the preschool dominance hierarchy are those who develop and maintain positive relationships with their peers, not only in preschool, but thereafter as well.

As noted earlier, new statistical techniques are now allowing researchers to examine the quantity, composition, and stability of networks in the peer group. In a series of studies, van den Oord and colleagues demonstrated that, as early as the preschool period, children’s groups comprise individuals who are behaviorally similar (van den Oord, Rispens, Goudena, & Vermande, 2000; Vermande, Van den Oord, Rispens, & Goudena, 2000). Aggression is the most important determinant of social clustering in the preschool classroom: A researcher can best predict the peer group composition for aggressive children—a finding that repeats itself in older groups of children (see following).

Middle Childhood and Early Adolescence
The school-age years represent a dramatic shift in social context for most children in Western cultures. During this time, the proportion of social interaction that involves peers increases. Whereas approximately 10% of the social interaction for 2-year-olds involves peers, the comparable figure for children in middle childhood is more than 30%. Other changes include: the size of the peer group (which becomes considerably larger) and how peer interaction is supervised (it become less closely supervised by adults). Thus, in the years leading up to adolescence, children are brought into contact with a more diverse set of peers, although generally with those who are similar to them in age.

The settings of peer interaction also change. Preschool children’s peer contacts are centered in the home and in day-care centers, whereas school-age children come into contact with peers in a wide range of settings. Although the settings for peer interaction in middle childhood have not been well described, there are some key studies. Zarbatany, Hartmann, and Rankin (1990) reported that the most frequent contexts for peer interaction, among middle class young adolescents include, in order of their frequency, conversing, “hanging out,” being together at school, talking on the telephone, traveling to and from school, listening to TV and records, and noncontact sports. Boys and girls differed on only one of these activities—more peer interaction took place during phone conversations for girls than for boys.

In terms of their perceived importance, this sample of early adolescents viewed noncontact sports, watching TV or listening to records, conversing, talking on the telephone, physical games, parties, and “hanging out” as the most important contexts for peer interaction. An important aspect of this research is that these contexts were associated with different types of peer interaction. Noncompetitive activities facilitated socializing and the development of relationships, whereas competitive ac-
activities provided opportunities for identifying unique aspects of the self. According to Zarbatany et al. (1990), the full range of activities is necessary for early adolescents to derive broad benefits from peer experiences.

**Interaction**

During middle childhood, verbal and relational aggression (insults, derogation, threats, gossip) gradually replace direct physical aggression. Further, relative to preschoolers, the aggressive behavior of 6- to 12-year-olds is less frequently directed toward objects or occupying specific territory and more specifically hostile toward others (Dodge, Coie, & Lynam, Chapter 12, this Handbook, this volume). With regard to positive social behavior, Eisenberg, Fabes and Spinrad (Chapter 11, this Handbook, this volume) report the levels of generosity, helpfulness, or cooperation that children direct to their peers increases somewhat during the primary and middle school years.

The frequency of “pretend” or “nonliteral” aggression, or R&T play fits a U-shaped developmental function (Pellegrini, 2002). Rough-and-tumble play comprises approximately 5% of preschoolers’ social activities. In early elementary school, the frequency of R&T ranges from 10% to 17%, thereafter declining in middle childhood and early adolescence to 5% (Humphreys & Smith, 1987). Interestingly, it has been proposed that the primary function of R&T, especially among early adolescent boys, is to establish dominance status and thereby delimit aggression among peers (Pellegrini, 2002). Finally, by middle childhood, increases are found in the frequencies of games with or without formal rules. In these latter activities, children’s interactions with peers are highly coordinated, involving both positive (cooperative, prosocial) and negative (competitive, agonistic) forms of behavior.

Children’s concerns about acceptance in the peer group rise sharply during middle childhood, and these concerns appear related to an increase in the salience and frequency of gossip (Kuttler, Parker, & La Greca, 2002). Gossip, at this age, reaffirms children’s membership in important same-sex social groups and reveals, to its constituent members, the core attitudes, beliefs, and behaviors comprising the basis for inclusion in or exclusion from these groups. Thus, gossip may play a role in fostering friendship closeness and in promulgating children’s social reputations. Kuttler et al. (2002) recently reported that preadolescents label most talk about a non-present other as gossip and consider it to be inappropriate, are more skeptical of gossip than of first-hand information, and are likely to assume that gossipers spread false information out of jealousy.

Two additional forms of interaction have received specific attention in the recent literature. Dishion, McCord, and Poulin (1999) coined the term deviancy training to refer to the processes of praise, encouragement, imitation, and expectancy by which children increase the level of aggression or antisocial behavior in their peers. Essentially, deviancy training occurs when children model and reward aggressive behaviors in each other; the process by which these exchanges take place is thought to increase individual tendencies in aggressiveness and to strengthen ties to aggressive and substance-abusing friends and delinquent peer groups. In this regard, deviancy training “hits” at all levels of the social enterprise.

A form of interaction that affects internalizing problems has been identified also. Rose (2002) has shown that in the interactions of close friends, especially in the friendships of early adolescent girls, there can be a pattern of interaction described as “co-rumination” in which negative thoughts and feelings are shared and discussed. This joint focus on worries and negative experiences appears more often in the friendships of young adolescent girls than boys and is associated with internalizing problems for 12- to 14-year-olds, but not for 8- to 10-year-olds. Rumination thoughts in individuals and shared rumination among peers may play a role in sustaining or exacerbating problems of an internalizing nature, thus this topic seems ripe for additional study.

Yet another form of interaction emerging fully blown during middle childhood and early adolescence is bullying and victimization (Espelage, Bosworth, & Simons, 2000). Bullying refers to acts of verbal and physical aggression on the part of an individual that are chronic and directed toward particular peers (victims). Bullying accounts for a substantial portion of the aggression that occurs in the peer group (Olweus, 1978, 1993). The dimension that distinguishes bullying from other forms of aggressive behavior is its specificity—bullies direct their behavior toward only certain peers, comprising approximately 10% of the school population (National Institute of Child Health and Human Development Early Child Care Research Network, 2001; Olweus, 1984). Research on bullying suggests that bullies are characterized by strong tendencies toward aggressive behavior, relatively weak control over their aggressive impulses,
and a tolerance for aggressive behavior (1978, 1993). Further, Perry, Perry, and Kennedy (1992) noted that bullies are most likely to use force unemotionally and outside of an ongoing flow of conflict or interaction. Also, bullies generally do not experience much resistance to their aggressive acts.

Children who are greatest risk for victimization are those who have elevated scores on measures of aggression or social withdrawal. Nearly every study that has assessed the association between aggressiveness and victimization has revealed a positive correlation (e.g., Camodeca, Goossens, Terwogt, & Schuengel, 2002; Hanish & Guerra, 2004; Hodges, Malone, & Perry, 1997; Snyder et al., 2003). These findings appear to be culturally universal; thus victimization and aggression have been found to be positively associated in North American, Southern Asian (Khatri & Kupermidt, 2003) and East Asian (Schwartz, Farver, Chang, & Lee-Shin, 2002) samples. When bullies direct their aggression to other aggressive children, it facilitates a transactional relationship that appears to facilitate the stability of aggression in the bully victim partners (Camodeca et al., 2002; Kochenderfer & Ladd, 1997; Kochenderfer-Ladd, 2003). Finally, there is evidence that anxious and socially reticent children are victims of bullying behavior (Hanish & Guerra, 2004; Kochenderfer-Ladd 2003; Olweus, 1993).

As implied by Graham and Juvonen (2001) and Schafer, Werner, and Crick (2002), victimization may occur at multiple levels of social complexity, such as the dyad (Crick & Nelson, 2002) or the group (Bukowski & Sippola, 2001). There are at least two explanations for the observation that aggression and social withdrawal are associated with victimization. One explanation notes that a withdrawn child is likely to be victimized because she or he is an easy and nonthreatening prey who is unlikely to retaliate when provoked (e.g., the construct of “whipping boy”; Olweus, 1978, 1993); alternatively, an aggressive child is victimized because his or her behavior is irritating and likely to provoke victimization from others (“the provocative victim”; Hodges et al., 1997; Olweus, 1993). According to this view different mechanisms underlie victimization for different types of children. Another view uses a single model to explain victimization. It claims that children victimize peers who do not promote the basic group goals of coherence, harmony, and evolution. According to this view, aggressive and withdrawn children do not promote these positive aspects of group functioning and as a result they are victimized.

Relationships

The period of middle childhood and early adolescence brings marked changes in children’s understanding of friendship. To chart these changes, researchers have asked children questions such as “What is a best friend?” or “What do you expect from a best friend?” (Bigelow, 1977). Although children of all ages indicate that a reciprocal “giving-and-taking” is necessary for friendship (Hartup & Stevens, 1997), researchers have shown that young children’s conceptions of a friend are anchored in the here and now, and not easily separated from social activity itself. Early school-age children have friendship concepts that transcend any specific activity, and imply the continuity of relationships over time. Nevertheless, during the early school years, children can still be instrumental and concrete in what they view as a friendship or appropriate friendship behavior. For example, Bigelow’s (1977) findings show that children’s friendship conceptions at the start of middle childhood (7 to 8 years) involve rewards and costs—friends are individuals who are rewarding to be with, whereas nonfriends are individuals who are difficult or uninteresting to be with. For children of this age, a friend is someone who is convenient (i.e., who lives nearby), has interesting toys or possessions, and shares the child’s expectations about play activities. This conception evolves during middle childhood and early adolescence. By about 10 to 11 years, children recognize the value of shared values and shared social understanding. Friends at this age are expected to stick up for and be loyal to one another. Later, at 11 to 13 years, children acquire the view that friends share similar interests, are required to make active attempts to understand each other, and are willing to engage in self-disclosure.

According to Berndt (1996), children do not abandon initial notions about play and mutual association when they eventually recognize the importance of intimacy and loyalty. In support of this view, school-age children’s drawings of their friends show clearly that friends are perceived as being similar to each other in many observable ways while at the same time, they show their loyalty and closeness to each other (Pinto, Bombi, & Cordoli, 1997). Moreover, even school-age children appear to recognize that while friends may share objective experiences in their friendships they may be differ-
ent from each other in their subjective experiences (Little, Brendgen, Wanner, & Krappman, 1999).

Children draw sharper distinctions between the supportiveness of friends and nonfriends with increasing age (Berndt & Perry, 1986). Moreover, children’s descriptions of their friendships indicate that loyalty, self-disclosure, and trust increase with age (Berndt, 2002), although these trends are more likely to be observed in girls than in boys (Berndt & Perry, 1986; Strough, Swenson, & Cheng, 2001). Older children of both sexes also possess more intimate knowledge of their friends, describe their friends in a more differentiated and integrated manner, and see their friendships as more exclusive and individualized (Berndt, 2002; Smollar & Youniss, 1982).

Significantly, there is little cross-cultural research on children’s understanding of friendship. Keller (2004a) has recently questioned whether the notion of emotional intimacy that so characterizes friendship in Western cultures during the later years of childhood and beyond is also typical in non-Western societies. She notes that in some cultures, especially in those that have subsistence economies, a primary function of friendship is instrumental aid and not emotional support (see also Beer, 2001). Moreover, in comparing such Western countries as Germany and the United States with non-Western China, Keller found that children in that latter culture emphasized moral issues and the importance of altruism in their understanding of close friendships. Children in the Western countries were more likely to emphasize relationship intimacy (Keller, 2004b). Given these significant differences in conceptions of friendship, it behooves researchers to examine cultures beyond those investigated by Keller and colleagues. Indeed, it would seem important to study within-cultural/ethnic differences as well (e.g., Way & Chen, 2000).

Changes in the understanding of friendship are accompanied by changes in the patterns and nature of involvement in friendships across middle childhood. Children’s friendship choices are more stable and more likely to be reciprocated in middle childhood than at earlier ages, although it is not clear that either the reciprocity or stability of friendship increases during middle childhood (Berndt & Hoyle, 1985). Stability of friendships is thought to derive from the positive qualities of, and the positive interactions between, children. Friendships that are high in relationship quality are more likely to persist over time (Berndt, 2004), and this is also true in early childhood. For example, Ladd, Kochenderfer, and Coleman (1996) found higher levels of positive friendship qualities (e.g., validation) and lower levels of negative friendship qualities (e.g., low conflict) in stable friendships of kindergarteners, relative to unstable friendships. Furthermore, stable friendships in middle childhood and early adolescence are more likely to comprise dyads in which the partners are sociable and altruistic; friendships that dissolve during the course of a school year are more likely to comprise partners who are aggressive and victimized by peers (Hektner, August, & Realmuto, 2000; Wojslawowicz, Rubin, Burgess, Booth-LaForce, & Rose-Krasnor, 2004). In addition, children’s liking for, and friendship involvement with, opposite-sex peers drops off precipitously after 7 years of age (Leaper, 1994).

Friendship dissolution may have a serious impact on children’s adjustment. For example, disruptions of close peer relationships have been associated with depression, loneliness, physiological dysregulation, guilt, and anger (e.g., Laursen et al., 1996; Parker & Seal, 1996). In addition, friendship loss in preadolescence (typically defined as the late years of middle or junior high school) may be particularly painful, due to the special role of friends’ loyalty during this developmental period (Buhrmeister & Furman, 1987). Recently, for example, Wojslawowicz et al. (2004) reported that 10- and 11-year-old children who had a best friend at the beginning of the school year but who lost that friendship and failed to replace it by the end of the school year were at increased risk for victimization by peers. Thus, it may be that if a dissolved best friendship is not replaced, the “advantages” of once having a best friend may quickly vanish.

Significantly, researchers have found that the lack of a best friendship, whether at a given point in time or chronically, can be accompanied by numerous risks. Friendless children are more likely to be lonely and victimized by peers (Boulton, Trueman, Chau, Whitehand, & Amatya, 1999; Brendgen, Vitaro, & Bukowski, 2000; Kochenderfer & Ladd, 1997). Chronic friendlessness during childhood has been associated contemporaneously with social timidity, sensitivity, and the lack of social skills (Wojslawowicz et al., in press; Parker & Seal, 1996), and predictively with subsequent internalizing problems (Ladd & Troop-Gordon, 2003). Relatively, investigators have demonstrated that friendship can be an important buffer for children; for example, Hodges and colleagues (Hodges, Boivin, Vitaro, &
Bukowski, 1999) found that peer victimization predicted increases in internalizing and externalizing problems during the school year only for those children who lacked a mutual best friendship.

The protective function ascribed to friendship is consistent with the view that close relationships function as security systems (e.g., Sullivan, 1953). Hodges, Malone, and Perry (1997), for example, showed that children who are at risk for victimization because of their own personal characteristics (i.e., being aggressive and/or withdrawn) are less likely to experience victimization in the peer group if they are also befriended rather than friendless. In such studies, it is argued that individual differences in victimization are associated with personal characteristics but that these associations are heightened by the lack of a friendship.

With respect to the features of children’s friendships in middle childhood and early adolescence, Newcomb and Bagwell (1995) reported that children are more likely to behave in positive ways with friends than non-friends or to ascribe positive characteristics to their interactions with friends. Although the effect size of this difference may, in some cases be small (Simpkins & Parke, 2002), this pattern of findings is observed across a broad range of studies using a variety of methods, including direct observations (e.g., Simpkins & Parke, 2002), interviews (Berndt, Hawkins, & Hoyle, 1986), and hypothetical dilemmas (Rotenberg & Slitz, 1988). More important, Newcomb and Bagwell’s (1995) meta-analysis showed that the expression of affect varied considerably for pairs of friends and non-friends during middle childhood and early adolescence. In their interactions with friends, relative to interaction with nonfriends, children show more affective reciprocity and emotional intensity, and enhanced levels of emotional understanding. Moreover, young adolescent friends use distraction to keep their friends from potentially harmful rumination about social attributions that may induce guilt or shame (Denton & Zarbatany, 1996). In this regard, friendship is a socially and positive relational context, and it provides opportunities for the expression and regulation of affect (Salisch, 2000). Consistent with the aforementioned views of Sullivan (1953), it has been found that these friend-nonfriend differences are stronger during early adolescence than during either middle childhood or during the preschool years.

One of the few dimensions of interaction in which there are no differences between friends and non-friends is that of conflict. Research has shown repeatedly that after early childhood, pairs of friends engage in about the same amount of conflict as pairs of non-friends (Laursen et al., 1996). There is, however, a major difference in the conflict resolution strategies that friends and nonfriends adopt. Friends are more concerned about achieving an equitable resolution to conflicts. More specifically, researchers report that friends are more likely than nonfriends to resolve conflicts in a way that will preserve or promote the continuity of their relationship (see Laursen et al., 2001, for a recent review). Consistent with these findings, friendship motives related to conflict resolution have been observed to be associated with lower levels of anger and more constructive forms of behavior (B. Murphy & Eisenberg, 2002). However, the beneficial effects of friendship are qualified by the characteristics of the best friend: Young adolescents with aggressive friends, compared with those who have nonaggressive friends, adopt increasingly aggressive solutions to social conflicts; young adolescents who are nonaggressive and who have nonaggressive friends use more prosocial solutions to conflicts (Brendgen, Bowen, Rondeau, & Vitaro, 1999). In this respect, experience in a best friendship is linked to the development of social competence; in the best friendship, children and adolescents show a concern for a balance between individual and communal goals.

There appear to be consistent qualitative differences in boys’ and girls’ best friendships in the middle childhood and early adolescent years. For example, the friendships of girls are marked by greater intimacy, self-disclosure, and validation and caring than those of boys (Leaper, 1994; Rubin, Dwyer, et al., 2004; Zarbatany, McDougall, & Hymel, 2000). Ironically, it is because of the intimacy of girls’ best friendships that they appear to be less stable and more fragile than those of boys (Benenson & Christakos, 2003; Hardy, Bukowski, & Sippola, 2002). Males’ best friendships are characterized by physical activities that do not require the exchange of personal information. According to Benenson and Christakos, intimate disclosure between female friends may become hazardous when best friends have a conflict. In such cases, the conflicting friends can divulge personal information to outsiders (Crick & Grootpeter, 1995). Moreover, girls’ close friendships are more likely to occur in isolation, whereas boys’ friendships are more likely to occur in a larger social network (Baumeister & Sommer, 1997). Conflict resolution may
be aided by third party mediators and allies in the larger group context.

As noted earlier, girls also report more co-rumination (e.g., negative dwelling on emotionally charged and intimate everyday occurrences and feelings), in their friendships than do boys (Rose, 2002). Significantly, when children’s peer activities are marked by communal rather than competitive/agentic activities, friendship intimacy is higher. And when boys’ best friendships are with girls rather than boys, intimacy is higher, thus suggesting that there may be two different “worlds” of relationships defined by context and activity (Zarbatany et al., 2000).

Thus far we have examined how children think about friendship and how they interact when with their best friends. We have also described the stability of best friendships during the middle childhood/early adolescent period. But who is it that children are attracted to? And with whom do they form best friendships? Just as is the case with young children, older children and young adolescents are drawn to others who are like them. Throughout this age period, children are attracted to and become best friends with those who resemble them in age, sex, ethnicity, and behavioral status (Hartup & Abecassis, 2002). For example, it has been reported that children and young adolescents are attracted to peers whose behavioral tendencies are similar to their own (Rubin, Lynch, Coplan, Rose-Krasnor, & Booth, 1994). Hamm (2000), for example, showed that similarity on a particular dimension varied across children largely due to the importance the child ascribed it. Similarity to their friend on academic performance was highest among children who saw academic performance as important.

Researchers in both Western and Eastern cultures have reported that greater behavioral similarities exist between friends than nonfriends, and children share friendships with other children who resemble themselves in terms of prosocial and antisocial behaviors (e.g., Haselager, Hartup, van Lieshout, & Riksen-Walraven, 1998; Liu & Chen, 2003; Poulin & Boivin, 2000), shyness and internalized distress (e.g., Hogue & Steinberg, 1995; Rubin, Wojciszewicz, Burgess, Booth-LaForce, & Rose-Krasnor, in press), sociability, peer popularity, and academic achievement and motivation (Altermatt & Pomerantz, 2003; Liu & Chen, 2003). Children also dislike those who are different from themselves and terminate relationships with those who are behaviorally unlike themselves (Poulin & Boivin, 2000). As Hartup and Abecassis (2002) put it: “No evidence exists to suggest that opposites attract” (p. 291).

Finally, as noted earlier, researchers have begun to study enmity and mutual antipathies. Abecassis et al. (2002) have shown that rates vary across classrooms, with the frequencies of dyadic enmity being as high as 58% in some classrooms. Although mutual antipathies are experienced by all children, they are most common among rejected children and they are more common among boys than girls, especially during middle childhood compared with adolescence (Rodkin & Hodges, 2003). But it is important to note that enmity is not simply due to elevated levels of rejection. The specific characteristics of particular pairs of “enemies” appear to be connected to attachment-related experiences (Hodges & Card, 2003). Children whose attachment-related coping styles are incompatible (e.g., one has an avoidant style and the other is preoccupied) are more likely to become enemies than are other children.

The developmental significance of mutual antipathies is unclear. Children in such relationships tend to be more depressed than are other children, and the presence of a mutual antipathy appears to exacerbate the effect of other negative experiences. Nevertheless, participating in the process of mutual disliking may be one means by which young people develop a clearer sense of self as they identify the characteristics that they like and dislike in others.

Many issues related to the study of mutual antipathies require further exploration. Perhaps the most important concerns the issue of how we define and measure the concept of enemy. Just as mutual liking is simply the minimum criterion for friendship, mutual disliking must be considered the minimum criterion for the presence of enmity. To paraphrase the important discussions provided by Abecassis and Hartup (2002), having an enemy implies warfare. Consequently, researchers would do well to examine whether children who nominate each other as “Someone I do not like,” actually interact. It may be that mutual antipathies merely capture an affective dimension, not an interactional one. “True” enemies may be proactive about their relationship. They may spread gossip about one another and engage in relational or other forms of aggression. They may be members of different identifiable groups, each of which exclude the other (research on peer exclusion may be particularly relevant, e.g., Horn, 2003; Killen &
Thus, in recent studies of preadolescents conducted in both Western (e.g., Canada, Finland, United States) and Eastern (e.g., China) cultures, group membership has been found to comprise children similar with regard to the following characteristics: aggression (Espelage et al., 2003; Gest et al., 2003; Kiesner et al., 2003; Xie et al., 1999), bullying (e.g., Salmivalli, Huttunen, & Lagerspetz, 1997), attitudes about bullying (Espelage et al., 2003; Salmivalli & Voeten, 2004), and school motivation and performance (e.g., Chen et al., 2003; Kindermann, 1993; Liu & Chen, 2003; Ryan, 2001; Sage & Kindermann, 1999).

Apart from cliques, the other primary organizational feature of children’s groups in middle childhood and early adolescence is the popularity hierarchy. There have been recent attempts to distinguish between sociometric popularity and perceived popularity. In the case of sociometric popularity or peer acceptance, the questions asked of children are “Who do you most like?” and “Who do you most dislike?” (see following for details about assessment). In the case of perceived popularity, the child is asked who he or she believes is the most popular in the classroom, grade, or school (Parkhurst & Hopmeyer, 1998; LaFontana & Gillessen, 1998, 2002). Unwittingly, these efforts follow Northway’s (1946) assertion that being accepted and being popular are different phenomena that have different antecedents and different consequences. Whereas being liked or accepted occurs at the dyadic level (i.e., one person has affection for someone else), the perception of someone as being popular in a classroom or school reflects a group level of analysis (i.e., the person is perceived according to her/his position in the group). Thus, in the study of peer group relationships, the word (and traditional measurement of) acceptance is most properly taken as a direct assessment of the extent to which a child is liked by her/his peers, whereas the word popularity refers to a child’s perceived standing or status in the group.

Recently, researchers have focused on the study of the peer relationship correlates of such negative characteristics such as aggression, bossiness, and untrustworthiness to clarify the distinction between the meanings and measurement of peer acceptance and perceived popularity. Thus, for example, in contradiction to the general finding that aggression impedes a child’s acceptance among peers, aggression appears to promote a child’s perceived popularity (Buskirk, Rubin, Burgess, Booth-LaForce, & Rose-Krasnor, 2004; Hawley, Little,
Research regarding the association between aggression and popularity is approached according to basic aspects of group process such as dominance, resource control, and regulation of retaliatory gestures between group members (Hawley, 2003). Findings show that children whose level of aggression is moderately above the mean and who use aggression for instrumental reasons are perceived as more popular in their groups than are children who are low in aggression or whose aggression is high and undifferentiated (Hawley, 2003; Little, Jones, Henrich, & Hawley, 2003; Prinstein & Cillessen, 2003; Vaughn et al., 2003).

Although the association between aggression and popularity may be seen even during the preschool period (Vaughn et al., 2003), this association appears to be stronger during early adolescence (Cillessen & Mayeux, 2004; Prinstein & Cillessen, 2003). Whereas aggression is positively associated with measures of popularity during early adolescence (Cillessen & Mayeux, 2004; LaFontana & Cillessen, 1998, 2002; Parkhurst & Hopmeyer, 1998), it is not related to acceptance (Buskirk et al., 2004). Moderately aggressive children may be given status and power in the peer group; however, this does not mean they are adjusted or that they will receive or benefit from the affection or kindness from their peers.

These findings are consistent with ideas about how groups function and how groups reward persons who promote the group’s functioning (see Bukowski & Sippola, 2001). Whereas the main reward that one can provide at the level of the dyad is affection, the main rewards that can be provided at the level of the group are power, attention, and status. And whereas group members victimize peers who impede the group’s evolution and coherence, groups give power, attention, and status to group members who promote the group’s well-being. Given that group leaders may, at times, have to be forceful, strong, assertive, indeed Machiavellian, their behavior may include a larger coercive or aggressive component than is seen among other children. This tendency to ascribe power and status to moderately aggressive individuals may be more pronounced in adolescence when aggression is seen as a more normative entity than among younger children (Moffitt, 1993). As a result, status, leadership, and aggression may often go together especially for young adolescents (Prinstein & Cillessen, 2003).

Three final points must be made. First, consistent terminology is a prerequisite for learned discussion. As the distinction between how much a child is liked and how popular a child is becomes more frequent, the clarity of the terms used to refer to these constructs becomes increasingly important. The word acceptance should be used to refer to a direct assessment of the extent to which a child is liked by her/his peers, whereas the word popularity should be used to refer to a person’s place in the peer group. The meaning of acceptance captures the essence of the construct it refers to (i.e., the extent to which a person is received with favor or approval by others). The word popularity is also ideally suited to the construct it is used to represent. Popularity, by definition, refers to someone’s position or status among the people. In this respect it is essentially a group-oriented construct.

Second, the “traditional” measures of popularity have been sociometric measures. Sociometry refers to the attractions and repulsions between individuals. To the extent that a measure of perceived popularity is neither a measure of attraction nor repulsion, it is not a sociometric measure. Third, most of the research on acceptance and popularity has been empirically driven. Because researchers have been largely interested in identifying the different correlates of these constructs, little direct attention has been devoted to understanding the conceptual differences between these constructs by their psychological or functional significance. Lease and her colleagues have gone furthest in discussing the link between popularity and power in the peer group (Lease, Kennedy, et al., 2002; Lease, Musgrove, & Axelrod, 2002). Their discussions of how power and status are fused in the construct of popularity provide a strong base for further exploration of how peer groups function and of how their dynamics are controlled by particular peers.

Adolescence

Interaction

The trend of spending increasingly substantial amounts of time with peers that begins in middle childhood continues in adolescence (Larson, Brown, & Mortimer, 2002). For example, during a typical week, even discounting time spent in classroom instruction, high school students spend almost one-third (29%) of their waking hours with peers, an amount more than double
that spent with parents and other adults (13%; Csikszentmihalyi & Larson, 1984). Moreover, adolescent peer interaction takes place with less adult guidance and control than peer interaction in middle childhood, and is more likely to involve individuals of the opposite-sex (Brown & Klute, 2003). These phenomena are largely consistent across cultural groups.

**Relationships**

As they enter adolescence, both boys and girls already understand a great deal about the reciprocal operations and obligations of friendship, about the continuity of friendships, and about the psychological grounds that evoke behavior. During early adolescence, friendship can be seen in overly exclusive terms in the sense that relationships with third parties are inimical to the basic nature of friendship commitment. During adolescence, however, youngsters begin to accept the other’s need to establish relationships with others and to grow through such experiences. In particular, perhaps in parallel to their struggles for independence from their parents, adolescents recognize an obligation to grant friends a certain degree of autonomy and independence. Thus, their discussions of friendship and friendship issues show fewer elements of possessiveness and jealousy, and more concern with how the relationship helps the partners enhance their respective self-identities (Berndt & Hoyle, 1985).

During adolescence, friendships are best maintained when the partners have similar attitudes, aspirations, and intellect (e.g., Smollar & Youniss, 1982). Based on this perspective, it appears that children who are different from the other boys and girls in the group are those who are less likely to have a friend. Nonetheless, same-sex friends account for an increasingly larger proportion of adolescents’ perceived primary social network, and friends equal or surpass parents as sources of support and advice to adolescents in many significant domains (e.g., Burhmester, 1998; Burhmester & Burhmester, 1992). Moreover, the friendships of adolescents are relatively stable (Berndt, Hawkins, et al., 1986).

One hallmark of friendship in adolescence is its emphasis on intimacy and self-disclosure. Studies consistently indicate that adolescents report greater levels of intimacy in their friendships than do younger children (Burhmester & Furman, 1986). Furthermore, observations of adolescent friends indicate that intimate self-disclosure is a highly salient feature of friendship interaction. Unlike at earlier ages, self-disclosure during adolescence prompts lengthy and sometimes emotional discussions about the nature of the problem and possible avenues to its resolution.

During adolescence, boys and girls have clear conceptions of the properties that distinguish romantic relationships from friendships (Collins, 2003; Connelly, Craig, Goldberg, & Pepler, 1999). Whereas romantic relationships are conceived in terms of passion and commitment, other-sex friendships are largely characterized by affiliation. Although even the youngest of adolescents distinguish between romantic relationships and other-sex friendships, distinctions between these relationships increase with age and with experience in romantic relationships. The study of adolescent romantic relationships by developmental psychologists is a surprisingly new enterprise with nearly all research on this topic stemming from the past 10 years. Relevant research is organized around three questions: (1) When do these relationships first emerge and for whom do they occur? (2) What are the characteristics of these relationships and what accounts for individual differences in their quality? (3) How do romantic relationships affect development?

With regard to developmental timing, romantic relationships are first seen during early adolescence with approximately 25% of 12-year-olds claiming they have had a romantic relationship during the past 18 months (Carver, Joyner, & Udry, 2003). This frequency increases in a largely linear fashion during adolescence with roughly 70% of boys and 75% of girls making this claim at age 18 (Carver et al., 2003; Seiffge-Krenke, 2003). The average duration of a romantic relationship has been observed to be 3.9 months at age 13, and 11.8 months at age 17 months (Seiffge-Krenke, 2003).

Dating and romantic relationships appear to follow a developmental sequence. Connolly, Craig, Goldberg, and Pepler (2004) showed that affiliation in mixed-sex groups and dating were qualitatively different phenomena that were sequentially organized. This sequential order followed a path that started with same-sex friendships and moved through an affiliative period of mixed-sex group activities and mixed-sex festive occasions (e.g., parties), followed by dating and being involved in a romantic dyad.

There are large differences between those adolescents who do and do not participate in romantic relationships. These differences vary during the adolescent
period and they are often characterized by complex patterns (Collins, 2003). Early involvement in romantic relationships has been linked to problem behaviors and emotional difficulties during adolescence (e.g., Davila, Steinberg, Kachadourian, Cobb, & Fincham, 2004), although this difference appears to be strongest among boys and girls who are unpopular among their same-sex peers (Brendgen, Vitaro, Doyle, Markiewicz, & Bukowski, 2002). It has been reported also that early daters show lower levels of scholastic achievement (Seiffge-Krenke, 2003), especially among girls (Brendgen et al., 2002). Among older adolescents, however, participation in romantic relationships is associated with positive experiences among same-sex peers and emotional and behavioral well-being (Seiffge-Krenke, 2003). Connolly, Furman, and Konarski (2000) reported that being part of a small group of close same-sex friends predicted being involved in other-sex peer networks, which, in turn, predicted the emergence of future romantic relationships. The observation that involvement in a romantic relationship is linked to acceptance with same-sex peers resembles prior findings regarding same-sex acceptance and other-sex friendship. These findings, however, have shown that participation in friendship with other-sex peers is linked to same-sex acceptance in a linear and a curvilinear manner in which children who are most liked by same-sex peers and those who are least liked, have other-sex friends (Bukowski, Sippola, & Hoza, 1999; Kovacs, Parker, & Hoffman, 1996). There is evidence also that the quality of a child’s same-sex friendships predicts the quality of their concurrent and subsequent romantic relationships (Connolly et al., 2000). Future research needs to clarify whether this pattern of findings regarding romantic relationships is equally valid for heterosexual and homosexual youth.

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

Romantic relationships also appear to have both positive and negative effects on development although the literature on these matters is not yet clear. Whereas there is evidence that participation in romantic relationships can be associated with elevated levels of depressed mood, higher levels of conflict, and emotional lability (Joyner & Udry, 2000), these findings appear to be the result of breakdowns of romance rather than of romance per se. On the positive side, being involved in a romantic relationship indirectly affects the adolescent’s sense of well-being via its direct effects on his or her sense of romantic competence (Kuttler, La Greca, & Prinstein, 1999).

Groups

As in middle childhood, cliques are readily observed in adolescence, and membership in cliques is related to adolescents’ psychological well-being and ability to cope with stress (Hansell, 1981). Also, as in middle childhood and early adolescence, group membership comprises individuals who are similar with regard to school achievement (Kindermann, 1995), substance use (cigarettes and alcohol; Urberg, Degirmencioğlu, & Pilgrim, 1997), and delinquency (Kiesner et al., 2003). Nevertheless, Shr um and Cheek (1987) reported a sharp decline from 11 to 18 years of age in the proportion of students who were clique members and a corresponding increase with age in the proportion of children who had ties to many cliques or children whose primary ties were to other children who existed at the margins of one or more cliques. These authors concluded that there is a general loosening of clique ties across adolescence, a process they label “degrouping.” This interpretation meshes well with data suggesting that both the importance of belonging to a group and the extent of intergroup antagonism decline steadily during high school years (Gavin & Furman, 1989). It is consistent also with the observations of ethnographers, who report a dissipation of clique boundaries and a sense of cohesiveness among senior high school class members (Larkin, 1979).

Whereas cliques represent small groups of individuals linked by friendship selections, the concept of peer subcultures, or “crowds” (Brown & Klute, 2003), is a
more encompassing organizational framework for segmenting adolescent peer social life. A crowd is a reputation-based collective of similarly stereotyped individuals who may or may not spend much time together. Crowds are defined by the primary attitudes or activities their members share. Thus, crowd affiliation is assigned through the consensus of the peer group and is not selected by the adolescents themselves. Brown (1989) listed the following as common crowd labels among American high school students: jocks, brains, eggheads, loners, burnouts, druggies, populars, nerds, and greasers. Crowds place important restrictions on children’s social contacts and relationships with peers (Brown, 1989); for example, cliques are generally formed within (versus across) crowds. Crowd labels may also constrain adolescents’ abilities to change their lifestyles or explore new identities by "channeling" them into relationships and dating patterns with those sharing the same crowd nomenclature or classification (Eckert, 1989).

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

The stigma that is placed on members of a particular crowd channels adolescents into relationships and dating patterns with those sharing a similar crowd label. This may prevent adolescents from the exploration of new identities and discourages a shift to other crowd memberships. There is recent evidence that the stigma associated with some large peer groups or crowds influences the judgments that adolescents form about their peers (Horn, 2003). Consistent with findings from research focused on children’s aggressive reputations and social cognitions (e.g., Dodge, 1986), Horn (2003) found that adolescents are biased in their use of reputational or stereotypical information about particular groups, particularly when presented with ambiguous situations. It is likely that these crowd-specific evaluations help to perpetuate group stereotypes and the structure of peer groups in a school.

The percentage of students who are able to correctly identify their peer-rated crowd membership increases with age (Brown, Clasen, & Neiss, 1987). An abbreviated list of crowds (populars, jocks, brains, burnouts, nonconformists, and none) used by Prinstein and La Greca (2002) revealed that self-nominations to groups overlapped strongly with findings from peer assignments.

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

Conclusion

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

The nature of children’s peer experiences changes with age because of a complex mix of developments with regard to intrapersonal (i.e., changes in interpersonal understanding and concerns), interpersonal (changes in the frequency or forms of specific behaviors), dyadic (changes in qualities of friendships or patterns of involvement in friendships), and group (changes in configurations of and involvement in cliques and crowds) factors. Furthermore, these different factors are not orthogonal; rather, they interlock in complex ways.

SOCIAL BEHAVIORS, INTERACTIONS, RELATIONSHIPS, AND GROUPS: ASSESSMENT ISSUES

The perspective we have adopted for this chapter assumes that children’s experiences with peers occur at
several orders of social complexity—from interactions to relationships to groups. Implied in such a formulation is that these levels of analyses provide separate windows on the adjustment of individual children with peers: To the extent that individual differences exist in children’s adaptation or success with peers, such differences will be reflected in their (a) social interactions, (b) abilities to develop and sustain friendships, and (c) acceptance in peer groups. We examine procedures by which researchers assess peer interactions, relationships, and groups in this section.

Children’s Behaviors and Interactions with Peers

Although parents, clinicians, and archival data have all served as sources of information about the valence and nature of children’s peer interactions, the most common sources are the reports of other children or teachers or structured observations.

Observations of Behavior

There has been a long tradition of observing children in either naturalistic or laboratory-based play groups and then coding their behavior to reflect particular constructs. For example, observational procedures have been used to index the frequency with which individuals engage in particular behavioral styles (e.g., aggression, sociodramatic play, reticence/social wariness, or sharing), adopt particular roles in relation to their partners (e.g., dominant versus submissive roles), or demonstrate social competence (e.g., are successful at entering playgroups). Several well-known coding systems have been developed for these purposes, and discussions of these techniques can be found elsewhere (e.g., Bierman, 2003). These coding schemes have been used profitably to reliably distinguish between children along a variety of behavioral dimensions. For example, Rubin (2001) developed the Play Observation Scale (POS), a norm-based time-sampling procedure to assess free play behaviors in early and middle childhood. During free play or unrestricted activity time (in a classroom, on a playground, or in a laboratory playroom), behaviors with and without peers are coded on a checklist that includes the cognitive play categories of functional-sensorimotor, exploratory, constructive, dramatic, and games-with-rules behaviors nested in the aforementioned social participation categories of solitary, parallel, and group activities (e.g., Coplan, Gavinski-Molina, Lagace-Seguin, & Wichmann, 2001; Guralnick, Hammond, & Conner, 2003). In addition, overt and relational aggression, R&T play, unoccupied and onlooker behaviors, and conversations with peers are recorded. Observational procedures such as the POS are useful in targeting children whose behaviors (e.g., different forms of aggression and social withdrawal) deviate from age-group norms. Such procedures can be used to validate peer and teacher assessments of children’s social behavior.

Additional observational protocols assess appropriate and inappropriate behavior (e.g., M. L. Lewin, Davis, & Hops, 1999), social competence (e.g., Vaughn et al., 2000), peer group entry (e.g., Putallaz & Gottman, 1981), multiple forms of aggression (e.g., Bierman, Smoot, & Aumiller, 1993), how existing peer dyads respond to newcomers (Zarbatany, Van Brunschot, Meadows, & Pepper, 1996), adolescent conversation and discussion (e.g., Hops, Albert, & Davis, 1997), and group planning (Englund, Levy, Hyson, & Sroufe, 2000).

Although observational methods offer many advantages over the assessments discussed next, they also have specific limitations. First, observations are time-, energy-, and money-consuming. Whereas peer and teacher assessments can be conducted in minutes or hours, observations can require weeks or months of data collection. Second, as children get older, it becomes increasingly difficult to observe them during “free play” (although recent advances in remote audio-visual recording allow observations of children’s conversations and interactions from afar; Atlas & Pepler, 1998). Third, situational demands strongly influence the types of behaviors displayed and their frequency. Unless researchers carefully consider or control how subjects’ behavior is being influenced by setting demands, observation methods can lead to false conclusions of the willingness of certain individuals to engage in behaviors of interest. Fourth, observations may be reactive; for example, children who are aware that they are being observed may behave in atypical manners, perhaps suppressing negative behaviors or increasing the production of prosocial behaviors. Finally, it should be mentioned that observational strategies have been used rarely to study peer interactions and relationships from a cultural and cross-cultural perspective.

Peer Assessments of Social Behavior

In lieu of direct observations, researchers have often relied on children for information about who it is in the peer group that behaves competently or incompetently, or has qualitatively good or poor relationships. Hymel
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and Rubin (1985) noted the following advantages of peer informants. First, as “insiders,” peers can identify characteristics of children and relationships that are considered relevant from the perspectives of those who ultimately determine a child’s social status and integration in the peer group. Second, the judgments of peers are based on many extended and varied experiences with those being evaluated. For example, peers may be able to consider low frequency but psychologically significant events (e.g., a punch in the nose or taking someone’s valued possession) that lead to the establishment and maintenance of particular social reputations. These latter events may be unknown to nonpeer “outsiders.” Third, peer assessments of children’s behaviors and relationships represent the perspectives of many observers with whom the target child has had a variety of personal relationships. The chance that error will be introduced by some idiosyncratic aspect of any single reporter’s experience with the child is therefore correspondingly reduced.

In most peer assessment techniques, children are given a set of target behaviors or personality descriptions and asked to nominate peers on the basis of a variety of behavioral roles or character descriptions (e.g., “is a good leader,” “gets into fights,” or “likes to play alone”). Nominations received from peers are summed in various ways to provide indices of a child’s typical social behavior or reputation in the peer group, whether that group comprises a classroom or school grade.

Two commonly used peer assessment techniques are the Revised Class Play (Masten, Morrison, & Pellegrini, 1985) and the Pupil Evaluation Inventory (PEI; Pekarik, Prinz, Liebert, Weintraub, & Neale, 1976). Factor analysis of children’s nominations using these two measures has yielded three similar behavioral factors. For the PEI, the factors obtained were Likeability, Aggression, and Withdrawal. The factors obtained for the Revised Class Play are labeled Sociability-Leadership, Aggressive-Disruptive, and Sensitive-Isolated.

Recent advances in the use of peer assessments have provided a more refined articulation of the dimensions underlying children’s social behavior. Thus, Zeller, Vannatta, Schafer, and Noll (2003) computed a confirmatory factor analysis for the Revised Class Play and discovered that the model that best fit the data needed to be substantially more differentiated than a simple three factor model would imply. In a sense, this result is not surprising given previous analyses that have distinguished between different forms of social withdrawal (e.g., Bowker, Bukowski, Zargarpour, & Hoza, 1998; Rubin & Mills, 1988) and between different forms of aggression (Crick & Bigbee, 1998; Poulin & Boivin, 1999). In the case of aggression, peer assessment procedures to distinguish between physical aggression (fighting, kicking, hitting), verbal aggression (threatening, teasing), and relational aggression (spreading rumors, excluding from play) have been developed. Recently, Burgess and colleagues (Burgess, Wojtowicz, Rubin, Rose-Krasnor, & Booth, 2003) developed a reliable and valid extension of the Revised Class Play to distinguish between forms of social withdrawal, as well as to measure sociability, prosocial/altruistic behavior, and victimization. Embedded items assess peer acceptance, perceived popularity, and rejection.

Like the Revised Class Play, the PEI (Pekarik et al., 1976) has undergone revision. Pope, Bierman, and Mumma (1991) condensed the original scales and added items describing inattentive/immature and disruptive/hyperactive behaviors. By so doing, Pope et al. provided an instrument that could distinguish aggressive children who are rejected from those who are accepted by peers.

Peer behavioral assessment assumes that children’s impressions of one another are established over time. Indeed, it has long been assumed that a major advantage of this technique is that it permits researchers to identify children who engage in behaviors that are salient to other children but too infrequent or too subtle for researchers to observe with any reliability. But a disadvantage of peer assessments is that once behavioral reputations consolidate they can be resistant to change (Hymel, 1986). Thus, even though a child’s behavior may have changed, their reputation for this behavior persists with peers. As such, the data reaching the researcher may not fully reflect the current state of “reality.” In addition, reputations are probably unduly influenced by infrequent but salient events (e.g., embarrassing social gaffs or poignant aggressive outbursts). Although characteristic of the child, the child’s reputation for this behavior may overstate the frequency with which it appears in his or her social interchanges. Relatedly, there is evidence that children’s recall of their peers’ abilities and behavior is affected by their own behavioral reputation, level of peer status, age, and liking for the target; situational factors; and the target’s gender, age, and sociometric status (e.g., Hymel, 1986). Finally, a main challenge to the study of peer assessments is the potential variance across cultural contexts in the
organization of social constructs (see Bukowski & Sippola, 1998). Because social demands and practices may vary across cultures, children’s representations of social constructs may vary also. The cross-cultural research of Chen and colleagues is particularly relevant in this regard and is discussed later (e.g., Chen, Cen, Li, & He, 2005; Chen, Rubin, Li, & Li, 1999; Chen et al., 2004).

**Teacher Assessments**

Teachers can provide useful data concerning low frequency social exchanges that may contribute toward the quality of a child’s peer relationships. One advantage of teacher assessments over peer assessments is that the collection of data is more efficient and less time-consuming. A second advantage is that, because they themselves are not members of the peer group, teachers may be more objective in their assessments of social behavior. However, teachers may bring with them an “adultomorphic” perspective that carries with it value judgments about social behaviors that might differ from those of children. Furthermore, teachers may carry with them biases that influence the ways in which they react to their pupils; such teacher reactions may strongly influence children’s peer preferences and judgments (White & Kistner, 1992).

Teacher referrals are one source of data on children with behavioral difficulties. Many objections might be leveled against this approach, however. In the first place, teachers refer children for academic behaviors (e.g., learning disabilities or motivational problems) that may have only minor implications for social difficulties with peers. Second, even when problematic behavior toward peers is the basis for referral, it is not clear that such referrals will take place when the behavior is not also disruptive of classroom routines and academic progress.

Many standardized measures presently exist and an excellent review of teacher ratings of child behavior may be found in Bierman (2003). Generally, these measures can be broken down into several socioemotional clusters or factors that fall along dimensions of sociability/likeability/leadership, aggression/hostility/conduct disorder, hyperactivity/impulsivity, and anxiety/fearfulness/withdrawal.

**Agreement among Sources**

Achenbach, McConaughy, and Howell (1987) reported that the correlations between reports of children’s behavioral problems average about .60 between similar informants seeing children under generally similar conditions (e.g., pairs of teachers; pairs of parents); .28 between different types of informants seeing the child under different conditions (e.g., parents versus teachers); and .22 between children’s self-reports and reports by others, including parents, teachers and mental health workers. Age, sex, and the specific topography of the behavior under consideration have all been shown to be important factors influencing agreement. For example, agreement between teachers and peers concerning social withdrawal appears to increase with age from early to late childhood (Hymel, Rubin, Rowden, & LeMare, 1990), primarily because social withdrawal takes on increased salience to peers (but not teachers) with increasing age. Thus, it would appear as if no single source can substitute for all the others. The goal is not to determine which assessment procedure yields the singular truth about the child but to use what each one reveals about the child’s functioning in particular areas or contexts.

**Children’s Relationships with Friends**

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

These subjective and reciprocal properties are challenges to understanding and require special caution in assessment. In early childhood, it is common to ask parents or teachers to identify whether a child is a friend of another child (Howes, 1988). Typically, researchers do not give these informants specific criteria by which the presence of a friendship should be determined. Instead, it is often simply assumed that these informants share the researcher’s definition of friendship, which may or may not always be the case. In the assessment of the friendships of older elementary school-age children, the focal child’s perceptions of his or her circle of friends must be sought and aligned with independent evidence of reciprocity of affection obtained directly or indirectly from each of these implicated individuals (Asher et al., 1996; Bukowski & Hoza, 1989). Typically, preschoolers and elementary school-age children are
presented with a roster or a set of pictures of their same-sex classmates (or some other functionally similar group) and asked to circle or otherwise indicate which members are their best or close friends. Researchers who study middle-schoolers may use classroom lists or they may simply ask children to write down the names of their best friends. The pattern of choices is then examined to identify children who nominate one another. Less often, investigators have used reciprocated high ratings as an index of friendship, either alone or in conjunction with friendship nominations (Bukowski, Hoza, & Newcomb, 1994). Both procedures are consistent with the definition of friendship that we presented earlier—friendship requires reciprocity, refers to a free choice on the part of the two children involved, and is predicated on affectional concerns rather than instrumental issues.

Evidence of reciprocity of affection alone may be insufficient to presume or substantiate claims of friendship. Children may enjoy each other's company in school but never spend time together outside of school or in other ways have experiences together that lead them to think of each other as friends. Indeed, sometimes children have only limited direct contact with other children they report liking. For example, children can admire another child from a distance, can be grateful to someone who is only an acquaintance, or have affection for someone whose leadership facilitates group's functioning (Parker, Saxon, et al., 1999). Yet, friendship generally implies that the individuals involved in the relationship not only like or admire one another but also label their relationship a friendship, have some shared history together, are committed to one another, and are comfortable being perceived as a pair of friends by others. Normally, friendship cannot be presumed unless children have been expressly asked whether the relationship in question is a friendship.

One problem that can limit the validity of friendship measures is whether one has adequately assessed the entire domain of a child's peer relationships. Although the peer group at school is typically a child's most salient peer group, it is almost always the case that children have friends outside of school—in their neighborhood or in connection with sports or recreational activities. In this regard, the sole use of school-based data underestimates the extent of children's friendship relations. This problem is further exacerbated if assessments allow only for the nomination of classmates—friendships with children in other classrooms at school are overlooked. This is a particular problem in schools in which children do not spend their school time in a single class comprising the same group of peers. In North American middle and high schools, for example, it is often the case that students take different courses with different classmates. In this regard, the use of classroom nominations makes little sense. One would fare better by asking all children in a given grade to list their best friends in that particular grade. With increasing age, however, it may also make sense to ask children to nominate their best friends in the given school.

To solve the problem of identifying friendships in a given classroom or school, some researchers have begun to use diary data: They ask children in late middle school (junior high school) or high school to keep a log of who it is they spend time with when they are not at school (e.g., Laursen, Wilder, Noack, & Williams, 2000; Laursen & Williams, 1997). These logs or diaries allow children to indicate the length of time and quality of their interactions with friends.

A second problem occurs when children are permitted only a limited number of friendship nominations (e.g., three choices). This practice may arbitrarily restrict the number friendships a child may have. Furthermore, when the number of choices is specified, children who have one or two classroom friends may feel compelled to add to their list the names of children who are not actually their best friends. This creates the possibility for overestimating the actual number of friendships these children have.

A central benefit of friendship may also be one of its challenges. Whereas friendship may help protect children from inadequacies in their families, the interface between friendship and family may present difficult demands on children. As French (2004) has shown, in cultures that ascribe considerable power or authority to the family system, the significance and meaning of friendship may differ substantially from the meaning of friendship in Western cultures. It is conceivable that friendship may be neither the threat to the expected structure and influence of the family. Accordingly, peer research needs to be increasingly sensitive to the cultural variations in the way that friendship is constructed and in the role that friendship is given in children's lives.

**Friendship Quality**

In addition to determining whether a child has a close dyadic friendship, investigators have shown an increasing concern with the characteristics or qualities of children's relationships with their best friends. Given that
children’s understanding of friendship changes with age, it is not surprising that there are age differences in the properties of children’s friendships. And considering the wide variations in individual characteristics that children bring with them to their friendships, it is reasonable to expect that not all friendships will be alike. The most common approach involves assessing the features of children’s friendships through children’s own reports (e.g., Berndt & Perry, 1986; Furman & Buhrmester, 1992; Parker & Asher, 1993). Furman (1996) has noted that assessments of this type are usually conducted with questionnaires or interview procedures and are predicated on the belief that a child’s impression of a relationship is the best index of this relationship for the child. Drawing from theoretical accounts of friendship (e.g., Sullivan, 1953), the dimensions typically assessed relate to (a) the functions of friendship (e.g., provision of companionship, level of intimate disclosure, degree of helpful and advice), (b) conflict and disagreements, and (c) the affective properties of the friendship (e.g., the affective bonds between friends).

Observational techniques have also sometimes been used to study friends’ behavior with one another (e.g., Dunn, Cutting, & Fisher, 2002; Lansford & Parker, 1999), although far less frequently than self-reports. Part of the reluctance of researchers to use observational approaches may stem from the formidable task of isolating the contributions of individual members to the observed patterns of dyadic interaction (Hinde & Stevenson-Hinde, 1987). This is a real concern, but some promising observational methods for describing interdyad variation are available (e.g., Howes, 1988; Simpkins & Parke, 2002; Youngblade, Park, & Belsky, 1993). Presumably, any interpersonal behavior between friends may be amenable to observational assessments. Researchers have generally been interested in dimensions of behavior that relate to the putative functions of friendship (e.g., provision of companionship, level of intimate disclosure, degree of helpful and advice) or address the affective properties of the relationship (e.g., the affective bonds between friends). Children’s conflict and disagreement with friends have also been of interest.

**Children’s Peer Acceptance**

Much of the dramatic increase in interest in children’s peer relationships during the past 25 years can be traced to advances in sociometry. Techniques for measuring popularity, especially a procedure developed by Coie, Dodge, and Coppotelli (1982), gave researchers a means by which to represent the extent to which a child is liked and disliked by peers. Much of the activity regarding sociometry is aimed at the challenge of developing valid and efficient measures of the two fundamental sociometric forces, specifically acceptance and rejection, and the measures that derive from them. Acceptance refers to how much a child is liked by peers; rejection refers to how much a child is disliked. The challenge of creating categorical measures results from the lack of independence between acceptance and rejection. These measures are neither the opposite of each other nor are they unrelated. Accordingly, a child high in acceptance is not necessarily low in rejection and a child high in rejection is not always low in acceptance. Some children could be high on both dimensions or low on both dimensions.

To account for these different patterns of association, derivative scores can be computed to index a child’s general likeableness (i.e., sociometric preference) and the child’s “visibility” in the peer group (i.e., sociometric impact). These scores have been used in various ways, most notably to make categorical assignments to the following sociometric groups: (a) popular—children who are high in acceptance and low in rejection (i.e., high impact, high preference); (b) rejected—children who are low in acceptance and high in rejection (i.e., high impact, low preference); (c) neglected—children who are low in both acceptance and rejection (i.e., low impact, mid-range in preference); (d) average—children who are average in acceptance and rejection (i.e., mid-range on both variables), and (e) controversial—children who are high in acceptance and rejection (i.e., high impact, mid-range on preference). Note well that in the case of sociometric classifications, the term popular is used as a synonym for accepted rather than as an index of social prestige or status. Discussions of the stability of sociometric scores and classifications can be found in Cillessen, Bukowski, and Haselager (2000), and in our previous Handbook chapter on children’s peer interactions, relationships, and groups (Rubin, Bukowski, & Parker, 1998). Discussion of the conceptual, methodological, and potential ethical problems with sociometric techniques classification can be found in Rubin et al. (1998) and Bukowski and Cillessen (1996).

**Assessments of the Peer Group**

Typically, groups have been studied for three reasons. First, investigators have sought to determine whether
and how a child is embedded into a naturally and spontaneously formed group structure. Two techniques, Social Network Analysis (SNA; Richards, 1995) and the Social Cognitive Map (SCM; Cairns, Gariepy, & Kindermann, 1989) are often used to identify peer networks. Social Network Analysis is based on friendship nominations. Children are asked to list the friends with whom they hang out most often in the school. Group members, liaisons, dyads, and isolates based on patterns of friendship links and the strengths of the links are identified (Richards, 1995). Group members are those individuals who belong to a rather exclusive social group that comprises at least three individuals who are linked with other members in the same group and who are connected by paths entirely in the group. Liaisons are individuals who have friendships with group members, but are not group members themselves. Dyads comprise individuals who have one reciprocated friendship. They do not belong to a group per se, but have mutual friendships. Finally, Isolates are children who have no reciprocated friendships. Given that SNA is based on friendship (either reciprocal or nonreciprocal) nominations, groups identified through the program represent friendship networks.

Compared with SNA, the SCM technique, developed by Cairns et al. (1989), assesses peer groups more directly. Children are asked, “Are there people in school who hang around together a lot? Who are they?” To ensure that the respondents include themselves, a follow up question is asked “What about you? Do you hang around together a lot with a group? Who are these people you hang around with?” Children are expected to report on groups about which they are most knowledgeable. Based on the reports of all participants, a matrix is constructed on the basis for, or are correlated with children’s acceptance or rejection by the peer group; a much smaller proportion of the research extant is focused on the correlates and antecedents of individual differences at the level of the dyad (e.g., friendship).

Second, following the determination that a child is a member of a group, a researcher can assess the group’s structural properties. These properties typically consist of (a) group size, (b) the position of the group in the broader community of peer groups, and (c) the patterns of association in the group. Size refers simply to the number of children in the group. The position of the group in the broader peer group refers to how many links the group has to other collectives in the general community of peers. And group structure refers to how many links there are between group members. In a dense group, most members would be linked to others; in a loosely organized group, some members would have no links to others at all.

Finally, a third goal is to assess the psychological characteristics of children’s groups. Examples of this approach can be seen in the work of Chen and colleagues (Chen, Chang, & He, 2003), Gest et al. (2003), and Kindermann et al. (1995). In their research, group profiles are schematized, representing the interest and characteristics that its members share. Kindermann and colleagues, for example, have shown that groups vary considerably in their emphasis on academic performance. Whereas group clustering techniques have been used to account for differences between groups that comprise the larger peer system, they may be an excellent way to capture differences between the structures of the peer group in different cultures. One would expect that, for example, in collectivist cultures, peer groups might be larger in that there might be more links in and between groups than one would see in individualistic cultures. This is an untested empirical question.

THE PROXIMAL CORRELATES OF CHILDREN’S PEER RELATIONSHIPS

The understanding of the origins and correlates of individual differences in children’s experiences with peers comprises the largest corpus of peer relationships research in the past 25 years. Much of this research has focused on the processes and variables that either provide the basis for, or are correlated with children’s acceptance or rejection by the peer group; a much smaller proportion of the research extant is focused on the correlates and antecedents of individual differences at the level of the dyad (e.g., friendship).

The literature on individual differences in popularity and friendship can be divided into two domains. First, the largest concentration of investigations center on the individual characteristics associated with (a) acceptance or rejection in the peer group at large, (b) the ability to make and keep friends, and (c) the quality of friendship. Most of this work focuses on either the display of particular forms of social behavior or the ways that children think about their social environments and relationships.

A second body of research is concerned with the associations between peer acceptance and rejection and friendship and both the child’s family relationship expe-
ances and the social environments in which the child functions. This literature deals with the distal correlates of peer acceptance and friendship. Although researchers appear to have their own preferences with regard to whether they examine proximal or distal correlates, these factors are truly interdependent; indeed, the study of the links between proximal and distal factors has become the central theme of much contemporary research.

**Proximal Correlates—Peer Acceptance**

Over 20 years ago, researchers set out to develop a behavioral explanation of peer acceptance and rejection. Studies were conducted using several approaches and designs most notably involving play groups (e.g., Coie & Kupersmidt, 1983) and peer-assessment techniques (Newcomb & Bukowski, 1983). In these investigations, researchers typically examined differences between children who had been classified as sociometrically popular, rejected, neglected, controversial and average. Literally, hundreds of studies were conducted, making sociometric studies the bread and butter of peer research throughout much of the 1980s.

A thorough review of the literature on the concomitants of popularity was presented in the previous version of this chapter (Rubin et al., 1998). Whereas some reviews of research serve as renaissances that renew the study of a topic, the reviews of the sociometric classification studies served as a requiem. Although many of the basic questions of sociometric classification remain unanswered, research on the differences between children in the five sociometric groups has waned. Here we provide a cursory discussion of what this literature has informed us.

**Popular Children**

“Popular” children are high in acceptance and low in rejection. Keep in mind that whereas the term popular has been traditionally used to refer to these children, this usage varies with the more recent trend to use the word “popular” to refer to children who are high in status and prestige in the group. The children traditionally known as “sociometrically popular” have been shown to have the following characteristics. Relative to other children, those of popular status are skilled at initiating and maintaining qualitatively positive relationships. When entering new peer situations, popular children are more likely than members of other sociometric status groups to consider the frame of reference common to the ongo-

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specifically, disruptiveness, physical aggression, and negative behavior (e.g., verbal threats). A small number of studies provide evidence of a causal link between aggression and rejection. Two of these are the groundbreaking playgroup studies of Dodge (1983) and Coie and Kupersmidt (1983). In these cleverly designed investigations, the interactions between unfamiliar peers in small groups were observed in a laboratory context over several days. Each child’s behavior was observationally coded; in addition, each child was assessed in a sociometric interview at the end of each play session. Gradually, some of the children became popular and others became rejected. The behavior that most clearly predicted peer rejection was aggression.

However, aggression is not the only factor linked to rejection. Detailed analyses indicate that aggressive children comprise only between 40% to 50% of the rejected group (Bierman, Smoot, & Aumiller, 1993; Cillessen, van Ijzendoorn, van Liershout, & Hartup, 1992). Indeed, with increasing age, it appears as if aggression becomes decreasingly associated with rejection, especially among boys (e.g., Sandstrom & Coie, 1999). Also, the data extant indicate that aggression may not lead to rejection if it is balanced by a set of positive qualities (e.g., social skill) that facilitate links with other children (Farmer, Estell, Bishop, O’Neal, & Cairns, 2003).

Researchers have found that there is a high level of heterogeneity among the behavioral tendencies of rejected children. For example, children who are highly withdrawn, timid, and wary comprise between 10% to 20% of the rejected group (e.g., Cillessen et al., 1992; Parkhurst & Asher, 1992). Another perspective on this latter statistic is that when extremely withdrawn children are identified, approximately 25% of them fall into the sociometrically rejected group (e.g., Rubin et al., 1993).

Finally, victimization has been observed to be associated with peer rejection, either as a correlate (Kochenderfer-Ladd, 2003; Schwartz, 2000), as a mediator that explains the association between withdrawal and victimization, or as a moderator that increases the stability of victimization (e.g., Hanish & Guerra, 2004).

**Neglected Children**

Few, if any, discrete behaviors have been found to be distinctive of sociometrically neglected children (see Newcomb et al., 1993). Sociometric neglected status is relatively unstable, even over short periods, and in that light, the fact that there are few strong associations between neglected status and specific behaviors is unsurprising.

**Controversial Children**

Sociometrically, this group is unique in that controversial children are high on both acceptance and rejection. Accordingly, controversial children appear to have many of the characteristics of both popular and rejected children. Coie and Dodge (1988), for example, reported that controversial boys, like rejected boys, were aggressive and disruptive, socially withdrawn, prone to anger and rule violations, and highly active. Alternatively, they reported that controversial boys were like popular boys in that they showed high levels of helpfulness, cooperation, leadership, and, in some instances, social sensitivity.

**Summary**

General conclusions can be drawn as to the features that distinguish sociometrically popular, rejected, neglected, controversial, and average children from one other. These differences generally fall along a positive/negative continuum. Sociometrically rejected children show high levels of negative behaviors and low levels of positive behaviors, whereas the opposite pattern is characteristic of popular children. Average children show moderate amounts of positive and negative behaviors, neglected children demonstrate low levels of each form of social behavior, and controversial children show high levels of both positive and negative behaviors. It should be remembered that the conclusions regarding differences between sociometric groups are based on consistencies across studies. Nevertheless, these general conclusions do not always represent powerful effects. Accordingly one cannot conclude that all aggressive children will be sociometrically rejected and one should not be surprised to discover that some aggressive children are actually liked by their peers. The next wave of research on acceptance, rejection, and children’s individual characteristics needs to sort out why some features lead to rejection in one case and acceptance in another.

Recent research has provided some guidance as to what the next set of studies should be like. One direction would be to give further attention to the interactions between variables. Hawley (2003), for example, has shown that aggression is linked with competence when it co-occurs with prosocial tendencies. Alternatively, Pritzstein and Cillessen (2003) have pointed to the importance of studying nonlinear effects such as examining whether the association between aggression and
competence with peers is best represented as curvilinear. As we noted earlier, several researchers have made the distinction between traditional sociometric dimensions of acceptance and rejection and the conceptualization of perceived popularity as an index of a child’s status in the group (e.g., Parkhurst & Hopmeyer, 1998).

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

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

Sex Differences

Given the widespread concern with sex differences in the literature on child development, it seems surprising to discover how little work exists on the topic of sociometric peer acceptance. Typically, researchers have failed to examine whether general findings are equally valid for boys and girls. For that matter, much of the early work focused solely on boys (e.g., Coie & Kupersmidt, 1983; Dodge, 1983) despite published calls for the examination of sex differences in the causes, proximal and distal correlates, and prospective outcomes of peer acceptance and rejection (e.g., Rubin, 1983). Further, sex differences have been neglected despite (a) the long-standing view that the relationships formed and maintained by females are qualitatively distinct from those of males (Leaper, 1994) and (b) the evidence that some aspects of social behavior may be differentially normative for boys and girls (e.g., Humphreys & Smith, 1987).

Sex differences do exist when behavior that is typical for a gender is considered. For example, in an observational study of 8- and 10-year-olds, Moller, Hymel, and Rubin (1992) distinguished styles of play that were engaged in more frequently by females from styles of play that were engaged in more frequently by males. The children were also administered a sociometric rating. The authors found that the relations between the same- or opposite-gender preferred play scores and popularity were nonsignificant for females in either age group. For males, however, the frequent demonstration of female preferred play was significantly, and negatively, associated with acceptance, not only by boys, but also by girls. And this relation held only for the 10-year-old males who frequently produced female sex-stereotyped play.

These latter data are in keeping with a study by Berndt and Heller (1986). Using scenarios in which they described a child who had chosen activities either consistent or inconsistent with gender stereotypes, the participants were asked to make judgments of the actor’s popularity among peers. The authors found that 9- and 12-year-old children demonstrated a greater negative reaction to gender inconsistent behavior than did 5-year-olds. Furthermore, they found this intolerance was greater for boys than for girls in that it was more appropriate for girls to behave in a gender inconsistent manner. Taken together, the research on the correlates of popularity for boys versus girls reveals one consistent finding. Males who display female-stereotyped behavior are disliked by both same- and opposite-sex peers; females who display male-stereotyped behavior are generally accepted by both same- and opposite-sex peers. These relations appear to gain strength with increasing age in childhood. Nevertheless, the relevant data base for examining sex differences in the correlates of peer acceptance and rejection is sparse. This gap in the literature is striking and it severely compromises our current understanding of the peer system (see Ruble, Martin, & Berenbaum, Chapter 14, this Handbook, this volume, for further discussion).

Variations across Groups

The argument that a child’s popularity will be associated with particular peer group norms has been the central focus of a number of investigations. Wright, Giammarino, and Parad (1986) examined the differences in the correlates of popularity in groups at a summer camp for boys with behavioral and emotional problems. For highly aggressive groups of children, the correlation between peer preference and aggression was very low. In nonaggressive groups, this association between preference and aggression was of moderate strength. The opposite pattern was seen in these same groups when social withdrawal was considered. Withdrawal was strongly and negatively correlated to preference in the high aggression groups and uncorrelated to preference in the low aggression groups. Boivin, Dodge, and Coie (1995) reported that reactive aggression,
proactive aggression, and solitary play were more negatively linked to a measure of social preference when high levels of these specific behaviors were nonnormative and unrelated to preference when high levels on these behaviors were normative. Stormshak et al. (1999) also found support for the person-group similarity model. These researchers reported that for boys, social withdrawal was associated with peer acceptance in those classrooms in which withdrawal was normative; for boys, aggression was linked to peer preference in those classrooms in which aggression was more normative. Findings for girls were complex and in some cases not supportive of the person-group similarity model. For example, in classrooms marked by high aggression, aggressive girls were not better liked than nonaggressive girls.

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

Lastly, the recent study of deviancy training is germane. In this work, researchers find that children who deviate from the norm (typically insofar as their aggressive behavior is concerned) find social support in peer networks of like-behaved counterparts (Bagwell & Coie, 2004; Dishion, Spracklen, Andrews, & Patterson, 1996). It is in such groups that popularity may be determined by behavior that is dysfunctional.

Variations across Culture

Cross-cultural research on the correlates of peer acceptance and rejection has been aimed at asking whether given behaviors known to be associated with acceptance or rejection in North American samples demonstrate similar relations in other cultures. One shortcoming in this work may be that investigators have taken measures originally developed for use in a Western cultural context, and have employed them in other cultural milieus. The general conclusion from this research has been that aggression and helpfulness are associated with rejection and popularity respectively in a wide range of cultures (e.g., Casiglia, Lo Coco & Zappulla, 1998; Chang et al., 2005; Chen, Rubin, & Li, 1995; Cillessen et al., 1992; Tomada & Schneider, 1997). Alternatively, researchers have found that among young Chinese children, sensitive, cautious, and inhibited behavior are positively associated with competent and positive social behavior and with peer acceptance (Chen et al., 1999; Chen, Rubin, & Sun, 1992). More recently, however, Hart and colleagues (2000) found that social reticence, defined as unoccupied and onlooking behavior (Coplan et al., 1994), was associated with a lack of peer acceptance, not only in young American children, but also among Russian and Chinese youngsters. Furthermore, Chang and colleagues (2005) have recently found that social withdrawal among young Hong Kong Chinese adolescents predicted the lack of peer acceptance 1.5 years hence. Relatedly, Chen et al. (2005) have reported that over the years, since the early 1990s, shy, reserved behavior among Chinese elementary school children has increasingly become associated with negative peer reputations. Chen and colleagues have argued that the changing economic and political climate in China is being accompanied by preferences for more assertive, yet competent, social behavior. In short, researchers would do well not to generalize findings drawn from children of one cultural group to children from another context. Moreover, changing socioeconomic climates may prove to have significant influences on that which is deemed acceptable behavior by significant peers and adults in the child’s environment (Silbereisen, 2000).

Summary

We have highlighted the notion that acceptance by the peer group (typically defined by classroom composition) is driven by conformity to or deviation from behavioral norms. Such a view is admittedly simple conceptually and does not take into account the possibility that correlates of popularity may vary according to whether a child is acquiring or maintaining their status in a group. This latter issue seems ripe for study in the next generation of studies on patterns of liking and disliking among children.

Social Cognitive Correlates of Peer Acceptance and Rejection

Those who study social cognition believe that the child’s thoughts about the social universe, especially about specific children, can be evocative or inhibitory because behavioral expression is concerned. Thus, if a child has difficulty understanding the sorts of behaviors
required to make proper entry into a group or to obtain desirable objects or to avoid harassment by peers, it may be reflected in their behavior in the peer group. In short, the connection between social cognition and peer acceptance and rejection is best understood by suggesting that thoughts (and emotions for that matter) about things social and relational can evoke particular forms of behavior. In turn, these behaviors lead to acceptance or rejection by peers.

With this in mind, researchers have studied a wide range of social cognitive variables that appear to have some bearing on the child’s acceptance by peers. In general, the more social-cognitively astute the child is, the more popular she or he is found to be (e.g., Slaughter, Dennis, & Pritchard, 2002). In this section, we review research in which social cognition has been associated with sociometric status.

**Social Information Processing**

We begin with a brief description of social information-processing models that are relevant to the study of children’s skilled and unskilled social behaviors. In one model, Rubin and Rose-Krasnor (1992) speculated that, when children face an interpersonal dilemma (e.g., making new friends, acquiring a desired object from someone else, or stopping others from acting against them), their thinking follows a particular sequence. First, children select a social goal or a representation of the desired end state of the problem-solving process. Second, they examine the task environment; this involves reading and interpreting relevant social cues. For example, social status, familiarity, and age of the participants in the task environment are likely to influence the child’s goal and strategy selection (Krasnor & Rubin, 1983). Third, they access and select strategies; this process involves generating possible plans of action for achieving the perceived social goal, and choosing the most appropriate one for the specific situation. Fourth, they implement the chosen strategy. Finally, it is proposed that children evaluate the outcome of the strategy; this involves assessing the situation to determine the relative success of the chosen course of action in achieving the social goal. If the initial strategy is unsuccessful, the child may repeat it or she/he may select and enact a new strategy or abandon the situation entirely.

Crick and Dodge (1994) proposed a similar social-cognitive model designed specifically to account for aggression in children (see Dodge, Coie, & Lynam, Chapter 14, this *Handbook*, this volume). This model consists of six stages: (1) the encoding of social cues, (2) the interpretation of encoded cues, (3) the clarification of goals, (4) the accessing and generation of potential responses, (5) the evaluation and selection of responses, and (6) the enactment of the chosen response. Recently, Lemerise and Arsenio (2000) integrated emotional experiences into the Crick and Dodge’s social information-processing model. For example, aggressive children’s emotional reactions to problematic social situations might include frustration or anger; anxious/withdrawn children may react with fear. These emotions, in turn, may influence the information that is attended to and the information that is recalled. This mood-congruent information processing might reinforce aggressive children’s social schemas or “working models” that the social world is a hostile one or withdrawn children’s notions that the social world is fear inducing. These emotional responses may explain, in part, why aggressive and withdrawn children respond in predictable ways to negative events befalling them.

Much research on social cognition and peer relationships has focused on rejected children’s deficits or qualitative differences in performance at various stages of these social information-processing models. First, rejected children are distinguished from their nonrejected counterparts on the basis of their spontaneous motives for social engagement. Popular children, for example, are more inclined to indicate the reason for interacting with others is to establish new, or enhance ongoing, relationships. Rejected children, however, are more likely to be motivated by goals that would reasonably be expected to undermine their social relationships, such as “getting even with” or “defeating” their peers (e.g., Ruben & Gordon, 1992).

Second, when considering the motives or intentions of others, rejected-aggressive children are more disposed than their popular counterparts to assume that negative events are the product of malicious, malevolent intent on the part of others (e.g., Dodge et al., 2003). This bias is evident when children are asked to make attributions for others’ behaviors in situations where something negative has happened but the motives of the instigator are unclear. In these ambiguous situations, rejected-aggressive children appear unwilling to give a provocateur the benefit of the doubt—for example, by assuming that the behavior occurred by accident. This “intention cue bias” is often suggested as an explanation for why it is that aggressive and oppositional-defiant children choose to solve their interpersonal problems in
hostile and agonistic ways (e.g., see Orobió de Castro, Veerma, Koops, Bosch, & Monshouwer, 2002, for a recent review).

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

By the elementary and middle school years, many socially withdrawn children are also rejected by their peers. Thus, one may ask whether these children view their social worlds in ways that vary from those of nonwithdrawn and/or nonrejected children. To begin with, when socially withdrawn 4- and 5-year-olds are asked how they would go about obtaining an attractive object from another child, they produce fewer alternative solutions, display more rigidity in generating alternative responses, and are more likely to suggest adult intervention to aid in the solution of hypothetical social problems when compared to their more sociable agemates (Rubin, Daniels-Beirness, & Bream, 1984). Observational research has demonstrated that socially reticent and withdrawn children produce fewer overtures to their peers than nonwithdrawn children (Nelson, Rubin, & Fox, 2005; Stewart & Rubin, 1995). Yet, the overtures produced are typically unassertive. Despite this production of unassertive strategies, withdrawn children are more often rebuffed by their peers than are nonwithdrawn children (Nelson et al., 2005; Stewart & Rubin, 1995). This connection between peer rebuff and social withdrawal or reticence may be taken as an in vivo assessment of peer rejection.

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

Some have suggested that there is a particular group of victimized children who are characterized by a socially withdrawn demeanor. For example, Olweus (1978, 1993) has referred to “whipping boys”—a group of victimized children perceived as easy marks by peers. Hodges and colleagues have referred to some victimized children as “physically weak” and “withdrawn” (Hodges, Boivin, et al., 1999; Hodges, Malone, & Perry, 1997; Rodkin & Hodges, 2003). Not surprisingly, researchers have found that children victimized by peers are also rejected by them (Kochenderfer-Ladd, 2003; Schwartz, 2000). Given the conceptual associations between social withdrawal, victimization, and peer rejection, the earlier noted findings by Wichmann et al. (2004) are reminiscent of work by Graham and Juvonen (1998, 2001). These latter researchers reported that youngsters who identified themselves as victimized by peers tended to blame themselves for their peer relationship problems. And Nolen-Hoeksema, Girgus, and Seligman (1992) have argued that self-blame can lead to a variety of negative outcomes of an internalizing nature, such as depression, low self-esteem, and withdrawal, thereby suggesting a self-reinforcing cycle of negative socioemotional functioning (see also Dill, Vernberg, & Fonagy, 2004).

Taken together, the findings reported earlier suggest that if children interpret social experiences negatively, inappropriately, and inaccurately, they may prove to be their own worst enemies. Such negative biases are likely to contribute to their already problematic social relationships. In the case of rejected-aggressive children,
demonstrated deficits in social-cognitive processing suggest that these children may have difficulty understanding the consequences of their behaviors for others and that their social failures can be attributed to internal, stable causes. In short, they may not claim responsibility for their production of agonistic social behaviors (“They made me do it!”) or for their negative social reputations. Indeed, given their social-cognitive inadequacies, rejected-aggressive children may not realize that their interactive styles are perceived negatively by peers. After all, as noted earlier, they do regard aggression as an effective and appropriate means to meet their interactive goals.

Alternatively, the rejected socially withdrawn child may be able to think through interpersonal dilemmas in an adequate, competent manner. Nevertheless, when confronted by the “real-life” social world, withdrawn children may be less able to meet their social goals than are their nonwithdrawn peers. The experience of peer noncompliance noted earlier is likely to have an unfortunate outcome for the sensitive, wary, withdrawn child. It is this type of sensitive rejected child who would attribute social failures to internal, stable characteristics, and who would respond to peer rebuff by expressing (a) loneliness, (b) self-blame, (c) dissatisfaction with his or her social relationships, and (d) negative self-appraisals of social skills.

Self-System Correlates of Peer Acceptance and Rejection

An important repercussion that has been ascribed to the experiences with peers is their effect on the self-concept. In the foundational ideas of Sullivan and of the symbolic interactionists, peer relationships were described as a critical source of the self. Specifically, boys and girls were said to use their peer relationships as important sources of information about themselves. Most positive experiences were believed to provide a strong sense of validation that reinforced the perception that one is well-functioning and grounded. Accordingly, research on peer relationships has often addressed theoretically derived hypotheses about the effects of peer experiences on aspects of the self.

Researchers have consistently reported that it is mainly rejected-withdrawn children (also variously described as submissive, sensitive, wary) who believe they have poor social skills and relationships (Hymel, Bowker, & Woody, 1993). Rejected-aggressive children do not report thinking poorly about their social competencies or their relationships with peers (Zakriski & Coie, 1996). These findings are in keeping with the results of studies concerning withdrawn and aggressive children conducted in Western cultures; it is only the former group that reports having difficulty with their social skills and peer relationships (Rubin, Chen, & Hymel, 1993).

Given rejected-withdrawn children’s negative perceptions of their social competencies and relationships, and given their negative experiences in the peer group, it is not surprising that these children report more loneliness and social detachment than popular children or children who are rejected but aggressive (e.g., Gazelle & Ladd, 2003). These relations have been reported throughout childhood and early adolescence (e.g., Crick & Ladd, 1993; Parkhurst & Asher, 1992).

A further distinction between rejected children is the chronicity of their peer problems. Whereas rejection is temporary for some children, it is an enduring experience for others. Ladd and Troop-Gordon (2003) showed that chronic rejection was related to subsequent views of the self and that these negative self-perceptions partially mediated the relation between peer difficulties and internalizing problems and loneliness.

In summary, although rejected children tend to report that they are less competent, less efficacious, and less satisfied with reference to their social skills and peer relationships, this conclusion appears true only for rejected children who are withdrawn, timid, or submissive. The study of the association between the self and peer relations is part of a large and enduring research tradition, which treats that self as the result of peer processes. More recent research suggests that children who are high and low in self-esteem manage and use their peer relations for different purposes. Research on the association between peer relationships and the self may benefit from the adoption of new perspectives such as the ideas from dynamic systems models of the self.

Children’s Friendships: Correlates and Individual Differences

In an earlier section, we described developmental issues pertaining to friendship, such as its understanding by children, its prevalence, features, and functions. In this section, we examine the correlates of friendship and individual differences in those aspects of friendship described earlier.

Children who lack friends may miss out on the advantages thought to be garnered by such relationships.
Furthermore, not only is the presence of friendship viewed as important, but the quality of the relationship is also considered significant. Qualitative dimensions of friendship include intimacy, companionship, and emotional and social support. Notably, friendship quality has been positively associated with indices of psychosocial adjustment and functioning, such as self-esteem (Berndt, 1996).

In an attempt to illustrate the distinction between peer acceptance and friendship, several researchers have examined the relation between sociometric status, friendship prevalence, and relationship quality. For example, Parker and Asher (1993) showed that while not all highly accepted children had best friends and not all children low in peer acceptance were without best friendships, highly accepted and average-accepted children were twice as likely as low-accepted children to have a mutual best friend. Additionally, low-accepted children reported qualitatively poorer friendships than the other two groups. From a dyadic perspective, Brendgen, Little, and Krappmann (2000) found that the degree of parallelism in friendship quality, or perceptual concordance, varied as a function of sociometric status. Whereas the perceptions of friendship quality of average-accepted and highly accepted children and their respective best friends were highly correlated, there was little relation between rejected children’s own perceptions and their best friends’ perceptions of the relationship quality, particularly concerning the extent to which they viewed the relationship as close and being fun.

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

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

**Friendship Prevalence and Quality**

Investigators have shown that the majority of aggressive children have a mutual best friendship and are as likely as well-adjusted children to have mutual friends (e.g., Vitaro, Brendgen, & Tremblay, 2000). Aggression, however, does seem to be negatively related to friendship stability (e.g., Hektner, August, & Realmuto, 2000), a finding that is not too surprising considering the adverse nature of aggression. Moreover, aggressive children have friends who are more aggressive and their relationships are more confrontational and antisocial in quality (e.g., Dishion, Eddy, Haas, Li, & Spracklen, 1997). High levels of relational aggression (e.g., threatening friendship withdrawal) within the friendship, and high levels of exclusivity/jealously, and intimacy characterize the friendships of relationally aggressive children. In contrast, overtly aggressive children direct their overt aggression outside their friendship dyads, and report low levels of intimacy (Grotz and Crick, 1996).

The prevalence of best friendships among young socially withdrawn children is not significantly different from that among nonwithdrawn children (Ladd & Burgess, 1999), and approximately 60% of withdrawn 8-, 9-, and 10-year-olds have reciprocated friendships (Rubin, Woslawowicz, Burgess, & Booth-LaForce, Rose-Krasnor, in press; Schneider, 1999). These data suggest that social withdrawal and shyness are individual characteristics that do not influence the formation, prevalence, and maintenance of friendship in childhood.

Relationship qualities have been studied in relation to different subtypes of aggression, such as relational and overt aggression (Grotz and Crick, 1996), and proactive and reactive aggression (Poulin & Boivin, 1999). Results from the aforementioned studies suggest that aggressive behaviors may negatively affect the qual-
ity of friendships. Recently, it has been shown that the friendships of withdrawn children are viewed as relatively lacking in fun, intimacy, helpfulness and guidance, and validation and caring (Rubin, Wojciszewicz, et al., in press). These findings suggest a “misery loves company” scenario for withdrawn children and their best friends. One may conjure up images of victimized friends coping poorly in the world of peers, images reflected in recent newspaper and television accounts of peer victimization and its untimely consequences.

There is some evidence to suggest that socially withdrawn children are more likely than their age-mates to be chronically friendless. In a summer camp study conducted by Parker and Seal (1996), chronically friendless children were rated by their peers to be more shy and timid, to spend more time playing alone, and to be more sensitive than children who possessed a mutual best friendship during the summer camp program. Additionally, counselors rated these friendless children as less mature, less socially skilled, and as displaying more withdrawn and anxious behaviors than children with friends. The aforementioned study is the only investigation to date of chronically friendless children, and the summer camp setting may have influenced the results in a significant fashion. If some socially withdrawn children are shy (e.g., Rubin, Burgess, Kennedy, & Stewart, 2003), then establishing friendships amongst unfamiliar others may prove somewhat overwhelming for many of these children. However, in a familiar setting, such as school, withdrawn children may have less difficulty forming and keeping friendships over the course of the school year. Conversely, as noted earlier, social withdrawal increases in salience with age to peers. Thus, it is possible that the negative reputation accorded socially withdrawn children may hinder friendship formation and maintenance processes. In any event, an investigation of the consistent absence of friendship among withdrawn and aggressive children relative to their nonwithdrawn, nonaggressive age-mates may prove illuminating.

DISTAL PREDICTORS OF CHILDREN'S SOCIAL SKILLS AND PEER RELATIONSHIPS

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

In the following section, we present a brief review of some of the distal factors that may influence children’s social interactions and peer relationships. We begin with a short discussion of the role of individual or dispositional temperament and biological factors. Following this, we examine the association between the parent-child and child-peer relationship systems. We focus primarily on research conducted in the framework of attachment theory. Following our discussion of attachment theory, we examine the relevant literature on parenting beliefs and behaviors.

Temperament, Social Behaviors, and Peer Relationships

Recently, temperament has been construed as constitutionally based individual differences in emotional, motoric, and attentional reactivity and the regulation thereof (Rothbart, Ellis, & Posner, 2004). Researchers who study temperament report that individuals differ not only in the ease with which positive and negative emotions may be aroused (emotionality) but also in the ease with which emotions, once aroused, can be regulated (Rothbart et al., 2004). In some respects, a better term for emotionality is reactivity in that most research on the phenomenon is focused on the extent to which children react to situations or events with anger, irritability, or fear. And again, most contemporary researchers have been interested in the ways in which reactive responses can be self-regulated. Thus, researchers have centered on the effortful self-control of emotional, behavioral, and attentional processes (Sanson, Hemphill, & Smart, 2004).

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

Each of these temperamental characteristics is relatively stable (e.g., Rothbart, Derryberry, & Hershey, 2000), and each is related to particular constellations of social behaviors that we described earlier as characteristic of either popular or rejected children. The conceptual model that “drives” much of the longitudinal research connecting temperament to peer interactions and relationships is rather straightforward. Temperament processes, such as emotional reactivity or effortful control, are posited to underpin the presentation of given social behaviors; these behaviors, in turn, are thought to predict children’s relationships with their peers (e.g., Eisenberg, 2002).

In keeping with this perspective, infants and toddlers who have been identified as having difficult and/or active temperament, or as emotionally reactive are more likely to behave in aggressive, impulsive ways in early childhood (e.g., Hay, Castle, & Davies, 2000; Rubin, Burgess, Dwyer, & Hastings, 2003). Contemporaneous and predictive connections between negative emotionality and/or difficult temperament and children’s aggressive and oppositional behavior have been discovered by researchers the world over (e.g., Keenan, Shaw, & Delli-quadri, 1998; Russell, Hart, Robinson, & Olson, 2003; Vitaro, Brendgen, & Tremblay, 2002). And, as we noted earlier, undercontrolled, impulsive, and aggressive behavior is associated contemporaneously and predictively with peer relationships characterized by rejection. Indeed, negative emotionality itself has been associated with peer rejection (e.g., Eisenberg, Fabes, Guthrie, & Reiser, 2000).

Similarly, behavioral inhibition, an individual trait identified in infancy and toddlerhood predicts the display of shyness and socially withdrawn behavior in early and middle childhood (Kagan, 1999; Rubin, Burgess, & Hastings, 2002). Contemporaneous connections between behavioral inhibition and children’s shy or socially reticent behavior have been found during early and middle childhood and adolescence (e.g., Pfeifer, Goldsmith, Davidson, & Rickman, 2002). Shy, socially reticent children display less socially competent and prosocial behaviors, employ fewer positive coping strategies, and are more likely to develop anxiety problems than their nonreticent age-mates (e.g., Coplan et al., 1994; Eisenberg, Shepard, Fabes, Murphy, & Guthrie, 1998). Moreover, reticence and social withdrawal has been found to predict peer rejection and victimization from as early as the preschool years (e.g., Gazelle & Ladd, 2003; Hart et al., 2000).

It has been suggested that dispositional characteristics related to emotion regulation may lay the basis for the emergence of children’s social behaviors and relationships. For example, Rubin, Coplan, Fox, and Calkins (1995) have argued that the social consequences of emotion dysregulation vary in accord with the child’s behavioral tendency to approach and interact with peers during free play. They found that sociable children whose approach behaviors lacked regulatory control were disruptive and aggressive; those who were sociable but able to regulate their emotions were socially competent. Unsociable children who were good emotion regulators appeared to suffer no ill effects from their lack of social behavior; when playing alone, they were productive engagers in constructive and exploratory activity. They were neither anxious amongst peers nor rated by parents as having socioemotional difficulties. Unsociable children who were poor emotion regulators were more behaviorally anxious and wary, more reticent than constructive when playing alone, and were viewed by parents as having more internalizing problems than their age-mates. Thus, emotionally dysregulated preschoolers may behave in ways that will elicit peer rejection and inhibit the development of qualitatively adaptive friendships. Further, this is the case for emotionally dysregulated sociable as well as unsociable children.

The results of Rubin et al.’s (1995) study are clearly in keeping with findings from Eisenberg and colleagues’ extensive research program on young children’s emotional arousal and regulation. Eisenberg and colleagues have consistently found that emotion dysregulation is a concomitant and predictor of behavioral solitude (e.g., Fabes, Hanish, Martin, & Eisenberg, 2002; Spinrad et al., 2004) and externalizing forms of behavior (e.g., Eisenberg, Cumberland, et al., 2001) in the peer group. Relatedly, researchers have found that the abilities to regulate negative emotions and to inhibit the expression of undesirable affect and behavior (regulatory control) are associated with, and predictive of, social competence and peer acceptance (e.g., Eisenberg, Spinrad,
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Fabes, Reiser, et al., 2004; Eisenberg, Pidada, & Liew, 2001; Gunnar, Sebanc, Tout, Donzella, & van Dulmen, 2003; Kochanska, Murray, & Coy, 1997), while an inability to regulate affect is associated with socially incompetent behavior (e.g., Calkins & Dedmon, 2000; Calkins, Gill, Johnson, & Smith, 1999). Importantly, these findings appear to be consistent across cultures (e.g., Eisenberg, Pidada, & Liew, 2001; Zhou, Eisenberg, Wang, & Reiser, 2004).

Temperament and Friendship

Most research associating temperament-related constructs and peer relationships have focused on peer popularity or rejection. There has been little work in which temperament has been associated with aspects of friendship. Stocker and Dunn (1990) found that sociable children were rated as having more positive relationships with friends; highly emotional children had less successful relationships with friends. Dunn and Cutting (1999), in a study of young children, found that negative emotionality was associated with the observed frequency of failed social bids and with less amity directed to the best friend; as a counterpoint, children showed less amity to friends who were inhibited or shy. More recently, in a study of young adolescents, Pike and Atzaba-Poria (2003) reported that sociability was related to positive aspects of perceived friendship quality, whereas negative emotionality was associated with friendship conflict.

Summary

In summary, researchers suggest that individual, dispositionally based characteristics may set the stage for the development of particular types of parent-child relationships and for the development of social behavioral profiles that ultimately predict the quality of children’s peer relationships.

Parent-Child Attachment Relationships, Social Behaviors, and Peer Relationships

According to Hartup (1985), parents serve at least three functions in the child’s development of social competence and qualitatively positive peer relationships. First, parent-child interaction is a context in which many competencies necessary for social interaction develop. Second, the parent-child relationship constitutes a safety net permitting the child the freedom to examine features of the social universe, thereby enhancing the development of social skills. Third, it is in the parent-child relationship that the child begins to develop expectations and assumptions about interactions and relationships with other people.

The Parent-Child Attachment Relationship

A basic premise of attachment theory is that the early mother-infant relationship lays the groundwork for children’s understanding of, and participation in, subsequent extrafamilial relationships. And, since the quality of attachment relationships with the mother may vary, subsequent social success and relationships with peers is expected to vary as well.

The putative, proximal causes of the development of a secure attachment relationship are the expressions of parental responsivity, warmth, and sensitivity (e.g., Belsky & Cassidy, 1995). The sensitive and responsive parent recognizes the infant’s or toddler’s emotional signals, considers the child’s perspective, and responds promptly and appropriately to the child’s needs. In turn, it is posited that the child develops a belief system that incorporates the parent as someone who can be relied on for protection, nurturance, comfort, and security; a sense of trust in relationships results from the secure infant/toddler-parent bond. Furthermore, the child forms a belief that self is competent and worthy of positive response from others. The process by which a secure attachment relationship is thought to result in the development of social competence and positive relationships with peers may be described briefly as follows. The “internal working model” of the securely attached young child allows him or her to feel secure, confident, and self-assured when introduced to novel settings; this sense of felt security fosters the child’s active exploration of the social environment (Sroufe, 1983). In turn, exploration of the social milieu leads to peer interaction and play. And as we noted earlier, peer interaction and play allow children to experience the interpersonal exchange of ideas, perspectives, roles, and actions. From such social interchanges, children develop skills that lead to the development of positive peer relationships.

Alternatively, the development of an insecure attachment relationship is posited to result in the child’s developing an internal working model that interpersonal relationships are rejecting or neglectful (Bowlby, 1973). Attachment theorists have suggested also that the expectations and assumptions that infants hold about others, and the means by which they cope with these cognitions,
are internalized and carried forward into subsequent relationships. Thus, it has been proposed that, in their subsequent peer relationships, insecure “avoidant” infants are guided by previously reinforced expectations of parental rejection; hence, they are believed to perceive peers as potentially hostile and tend to strike out proactively and aggressively (Troy & Sroufe, 1987). Insecure “ambivalent” infants, alternatively, are thought to be guided by a fear of rejection; consequently, in their extrafamilial peer relationships they are posited to attempt to avoid rejection through passive, adult-dependent behavior and withdrawal from the prospects of peer interaction (Renken, Egeland, Marvinney, Mangelsdorf, & Sroufe, 1989).

The Parent-Child Attachment Relationship and Children’s Social Behaviors: Empirical Support

Securely attached infants are more likely than their insecure counterparts to demonstrate socially competent behaviors amongst peers during the toddler (e.g., Pastor, 1981), preschool (e.g., Booth, Rose-Krasnor, & Rubin, 1991), and elementary school periods (e.g., Elicker, Englund, & Sroufe, 1992). Insecure babies, especially those classified as avoidant, later exhibit more hostility, anger, and aggressive behavior in preschool settings than their secure counterparts (e.g., Burgess, Marshall, Rubin, & Fox, 2003; Shaw, Owens, Vondra, Keenan, & Winslow, 1996). Insecure-ambivalent infants are more easily frustrated, and socially inhibited at 2 years than their secure age-mates (e.g., Fox & Calkins, 1993). At 4 years of age, children classified at 1 year as ambivalent have been described as fearful and lacking in assertiveness (Kochanska, 1998). Spangler and Schieche (1998) have reported that of the 16 “C” babies they identified in their research, 15 were rated by their mothers as behaviorally inhibited. As noted earlier, it has been suggested that inhibition in infancy and toddlerhood is a precursor of social withdrawal in early and middle childhood. Finally, evidence that disorganized/disoriented attachment status in infancy predicts the subsequent display of aggression amongst preschool and elementary school peers derives from several sources (e.g., Lyons-Ruth, Easterbrook, & Cicelli, 1997).

It is also the case that secure and insecure attachments, as assessed in early and middle childhood, as well as in early adolescence are associated contemporaneously with and predictive of adaptive and maladaptive social behaviors respectively. For example, children who experience a secure relationship with their mothers (and fathers) have been found to be more sociable and competent than their insecure counterparts, whilst insecure children exhibit more aggression and withdrawal (Allen, Moore, Kuperminc, & Bell, 1998; Rose-Krasnor, Rubin, Booth, & Coplan, 1996; Schmidt, Demulder, & Demham, 2002; Simons, Paternite, & Shore, 2001; Stevenson-Hinde & Marshall, 1999). Extensive reviews of related literature may be found in Thompson (Chapter 2, this Handbook, this volume).

The Parent-Child Attachment Relationship and Children’s Peer Relationships: Empirical Support

If the quality of the attachment relationship is associated with, and predictive of, patterns of social interaction, it seems logical to propose a relation between attachment status and the child’s standing in the peer group. In a recent meta-analysis of the extant literature on links between attachment and peer acceptance, Schneider, Atkinson, and Tardiff (2001) found a small-to-moderate effect size between these domains.

Attachment and Friendship

According to Booth, Rubin, Rose-Krasnor, and Burgess (e.g., 2004), although associations between attachment security and social competence and peer acceptance are theoretically meaningful, there is an even more compelling rationale for the link between attachment security and friendship. From attachment theory, one would expect that the trust and intimacy characterizing secure child-parent relationships should produce an internalized model of relationship expectations that affects the quality of relationships with friends. In support of this theoretically driven expectation, Schneider et al. (2001), in a meta-analysis, found a larger effect size linking attachment security with friendship than with peer relationships more generally.

For example, Younghblade and Belsky (1992) reported that securely attached infants were less likely than insecure infants to have negative and asynchronous friendships at 5 years of age. Freitag, Belsky, Grossmann, Grossmann, and Scheurer-Englisch (1996) found that children who had positive early relationships with their parents were more likely to have a close friend at age 10. Also, secure parent-child attachment in late childhood and early adolescence is associated positively (and contemporaneously) with positive qualities of children’s close peer relationships (Lieberman, Doyle, & Markiewicz, 1999; Rubin, Dwyer, et al., 2004). And Clark and Ladd (2000) have reported that parent-child connectedness, an essential element of the attachment bond, is associated with higher levels of
harmony and lower levels of conflict in the friendships of young children.

Whether specific attachment classifications predict types of friendships characteristics is, as yet, unknown. Recently, Hodges, Finnegan, and Perry (1999) have suggested that an important feature in close relationships is the balance between autonomy and connectedness. They suggested that this relationship orientation or relationship stance may be conceptualized and coded as avoidant or preoccupied: An avoidant child may be characterized by showing very little emotion on reunion with or on separation from the relationship partner, may avoid the partner when in a state of distress, and renounce the importance of the relationship. A preoccupied child may show extreme distress when the relationship partner is needed but absent, and may be acutely sensitive to the possibility of rejection by, and separation from, the partner. Hodges et al. (1999) found that relationship orientation with a best friend could be moderately predicted from the child’s relationship orientation with his or her parents, a finding that is explained by attachment theory and Bowlby’s (1969/1982) notion of generalized internal working models. Hodges and colleagues (1999) do not consider their measure of relationships stance to be equivalent to an attachment classification. Hodges et al. (1999) found that relationship orientation with a best friend could be moderately predicted from the child’s relationship orientation with his or her parents, a finding that is explained by attachment theory and Bowlby’s (1969/1982) notion of generalized internal working models. Hodges and colleagues (1999) do not consider their measure of relationships stance to be equivalent to an attachment classification. However, their research represents an important step in the direction of matching characteristics of parent-child and friend relationships.

Summary
There is growing evidence that the quality of parent-child attachment relationships is associated with and predictive of qualitatively good friendships. This being the case, we might expect future research to focus on relations between relationships systems and examine whether (and when) children’s friendships can augment (or exacerbate) the relations between parent-child attachment and adaptation or maladaptation.

Parenting and Children’s Social Behaviors and Peer Relationships

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

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

One conclusion that may derive from these findings is that parental involvement in the promotion of social competence is mediated by strong beliefs in the importance of social skills. When a socially competent child demonstrates poor social performance, parents who place a relatively high value on social competence are likely to become the most involved and responsive. Over time, such involvement may be positively reinforced by the child’s acquisition of social skills. At the same time, parents are likely to value the social skills displayed by their children, and these children will be perceived as interpersonally competent and capable of autonomous learning. Hence, parental beliefs and child characteristics will influence each other in a reciprocal manner (Rubin, Rose-Krasnor, Bigras, Mills, & Booth, 1996).

The Child as Parental Belief Evocateur
In keeping with the perspective that the parent-child relationship reflects the contributions of both partners, it is important to understand that parental beliefs may be evoked by child characteristics and behavior (Bornstein,
For example, the “problematic” child who demonstrates maladaptive social behaviors and who does not get along with her or his peers is likely to evoke different parental emotions and cognitions than the “normal” child (Bugental, 1992). When this latter group of children behaves in maladaptive or socially inappropriate manners, they may activate parental feelings of concern, puzzlement, and, in the case of aggression, anger. These parental emotions are regulated by the parent’s attempts to understand, rationalize, or justify the child’s behavior and by the parent’s knowledge of the child’s social skills history and the known quality of the child’s social relationships at home, at school, and in the neighborhood. Thus, in the case of nonproblematic children, the evocative stimulus produces adaptive, solution-focused parental ideation that results in the parent’s choice of a reasoned, sensitive, and responsive approach to dealing with the problem behavior (Bugental, 1992). In turn, the child views the parent as supportive and learns to better understand how to behave and feel in similar situations as they occur in the future. As such, a reciprocal connection is developed between the ways and means of adult and child social information processing.

But how does the socially incompetent child’s presentation of socially maladaptive behavior affect the parent? In the case of aggressive children, any hostile behavior, whether directed at peers, siblings, or parents may evoke (a) strong parental feelings of anger and frustration (Deater-Deckard & Dodge, 1997; Eisenberg, Gershoff, et al., 2001) and (b) biased attributions that “blame” the child’s noxious behavior on traits, intentions, and motives internal to the child (e.g., Strassberg, 1995). These parental cognitions and emotions, predict the use of power assertive and restrictive disciplinary techniques (Colwell, Mize, & Pettit, 2002; Coplan, Hastings, Lagace-Seguin, & Moulton, 2002). This type of low warmth-high control parental response, mediated by affect and beliefs/cognitions about the intentionality of the child behavior, the historical precedence of child aggression, and the best means to control child aggression, is likely to evoke negative affect and cognitions in the child. The result of this interplay between parent and child beliefs, affects, and behavior may be the reinforcement and extension of family cycles of hostility (Carson & Parke, 1996; Dishion, Duncan, Eddy, Fagot, & Fetrow, 1994; Granic & Lamey, 2002).

Parental reactions to social wariness and fearfulness are less well understood. Researchers have found that when children produce a high frequency of socially wary, withdrawn behaviors their parents (a) recognize this as a problem; (b) express feelings of concern, sympathy, guilt, embarrassment, and, with increasing child age, a growing sense of frustration; and (c) are more inclined than parents of nonwary children to attribute their children’s social reticence to dispositional traits (Hastings & Rubin, 1999). Perhaps in an attempt to regulate their own expressed guilt and embarrassment emanating from their children’s ineffectual behaviors, mothers of socially withdrawn preschoolers indicate that they would react to their children’s displays of social withdrawal by providing them with protection and direct instruction (Mills & Rubin, 1998). To release the child from social discomfort, the parents of socially wary children have indicated that they would solve the child’s social dilemmas by asking other children for information desired by the child, obtaining objects desired by the child, or requesting that peers allow the child to join them in play (Rubin & Burgess, 2002).

In summary, it is suggested that parental beliefs influence parental behavior; in turn, parental behavior influences the development, maintenance, and inhibition of children’s social behaviors, which, as we noted earlier, influence the quality of their peer relationships. Consistent with this view, parents of aggressive and withdrawn children have been found to differ from those of typical children in the ways in which they think about socializing social skills and in the ways that they report reacting to their children’s maladaptive behaviors.

**Parenting Behaviors, Children’s Social Skills, and Peer Relationships**

Parents may influence the development of social behaviors, interaction patterns, and ultimately, the quality of their children’s peer relationships by (a) providing opportunities for their children to have contact with peers; (b) monitoring of their children’s peer encounters (when necessary); (c) coaching their children to deal competently with interpersonal peer-related encounters; and (d) disciplining unacceptable, maladaptive peer directed behaviors (e.g., Parke & O’Neill, 1999).

**Parental Coaching and Managing**

Research suggests that parents vary widely in the extent of their efforts to provide opportunities for peer interaction for their children and to coach their children in specific social skills. Moreover, the available evidence suggests that parents’ efforts in these areas have implica-
tions for their young children’s success with peers (see Kerns, Cole, & Andrews, 1998; Mize & Pettit, 1997; Pettit, Brown, Mize, & Lindsey, 1998). Ladd and Golter (1988), for example, found that parents who actively arranged peer contacts and who indirectly supervised these contacts had preschoolers who were better liked by their peers. In addition, children whose parents relied on indirect rather than direct monitoring of their children’s peer contacts were less hostile toward peers. These findings have been supported in subsequent studies (e.g., Pettit et al., 1998). In a follow-up, short-term longitudinal study, Ladd and Hart (1992) found that mothers’ over- and underinvolvement in arranging and monitoring peer contacts could be detrimental to children’s social success, at least among boys. Boys whose mothers were moderately involved in initiating their child’s peer contacts displayed significant gains in peer status over time compared to boys with over- and underinvolved mothers. Girls made significant gains in peer status only when their own efforts to initiate contact with other children were large in comparison to those of their mothers (i.e., when their mothers were underinvolved).

Finnie and Russell (1988) found that during play with an unfamiliar age-mate, mothers of unpopular children were more likely to avoid supervising their children and to supervise their children less skillfully than mothers of more popular children. Mothers of more popular children were more active and effective in supervising their children’s peer related behaviors than mothers of less well-accepted children. In a follow-up study, Russell and Finnie (1990) examined mothers’ instructions to their child immediately prior to the child’s opportunity to play with an unfamiliar child. Mothers of popular children were more likely than mothers of low-status (rejected and neglected) children to make group-oriented statements during both the anticipatory instruction period as well as during the play session itself. Mothers of low-status children were more disruptive of their children’s play.

In summary, research indicates that when mothers are involved in effective ways in coaching their children through difficulties with peers, facilitating their children’s play with peers, and providing their children with opportunities to play with peers, their children are more popular among their age-mates. However, all of the research in this area is correlational and virtually none of the extant research is focused on fathers. It is entirely possible that the observed differences between the mothers of socially popular and unpopular or competent and incompetent children are a consequence, rather than the cause, of their children’s success with peers. Thus, it would be timely to examine whether very young children identified as being relatively unpopular with peers could “shake” their early reputations if their parents (mothers and fathers) were “trained” in parental monitoring and coaching skills.

**Parenting Behaviors**

Parents (usually mothers) of unpopular and/or peer rejected children have been reported to use inept, intrusive, harsh, and authoritarian disciplinary and socialization practices more frequently than those of their more popular counterparts (e.g., Carson & Parke, 1996; McDowell & Parke, 2000; Pettit, Clawson, Dodge, & Bates, 1996). These data seem to hold true for parents of preschoolers through elementary school children. Alternately, parents of popular children use more feelings-oriented reasoning and induction, responsivity, warm control (authoritative), and positivity during communication than their unpopular counterparts (e.g., Mize & Pettit, 1997).

In regard to the actual process that links parenting to the child’s peer relationships, it is possible to consider that parenting styles may promote particular child behaviors that mark a child for acceptance or rejection. To this end, researchers have demonstrated that mothers of socially competent children are more child-centered, more feelings-oriented, warmer, and more likely to use positive verbalizations, reasoning, and explanations than mothers of less competent children (e.g., Mize & Pettit, 1997; Rose-Krasnor et al., 1996).

With regard to socially incompetent behaviors, researchers have shown consistently that aggressive children have parents who model and inadvertently reinforce aggressive and impulsive behavior, and who are cold and rejecting, physically punitive, and inconsistent in their disciplinary behaviors. In addition to parental rejection and the use of high power-assertive and inconsistent disciplinary strategies, parental permissiveness, indulgence, and lack of supervision have often been found to correlate with children’s aggressive behavior (see Rubin & Burgess, 2002, and Dodge et al., Chapter 12, this *Handbook*, this volume, for recent reviews). It may not be difficult to understand these associations given that parental tolerance and neglect of the child’s aggressive behavior may actually have the implication of legitimization and encouragement of aggression. Importantly, these findings appear to have
cross-cultural universality (e.g., Cheah & Rubin, 2004; Chen & Rubin, 1994; Schneider, Attili, Vermigli, & Younger, 1997).

Relative to the literature on the parenting behaviors associated with undercontrolled, aggressive children little is known about social wariness and withdrawal. Research concerning the parenting behaviors and styles associated with social withdrawal focuses clearly on two potential socialization contributors—overcontrol and overprotection. Parents who use high power-assertive strategies and who place many constraints on their children tend to rear shy, reserved, and dependent children. Thus, the issuance of parental commands combined with constraints on exploration and independence may hinder the development of competence in the social milieu. Restrictive control may also deprive the child of opportunities to interact with peers. It should not be surprising that children who are socially withdrawn are on the receiving end of parental overcontrol and overprotection (e.g., Rubin, Burgess, & Hastings, 2002; Rubin, Cheah, & Fox, 2001). These findings concerning parental overcontrol and restriction stem from very few studies, most of which center on children of preschool age. Furthermore, the contexts in which parents of socially withdrawn children display overcontrol and overprotection have not been well specified. Thus, unlike the literature on the parents of aggressive children, the socialization correlates and causes of social withdrawal are not well-known. This dearth of data represents an open research agenda for future investigation.

**Parenting Behaviors and Children’s Social Competence: A Model**

In summary, there is some support for the contention that parental behavior is associated, not only with the development of children’s social competence, but also with their peer relationships (see Ladd & Pettit, 2002, for a review). The assumption has been that parenting leads to social competence or incompetence, which leads to peer acceptance or rejection. This causal model has been tested in a number of studies.

Dishion (1990) examined the relations among grade-school boys’ sociometric status, academic skills, antisocial behavior, and several elements of parental discipline practices and family circumstances. Causal modeling suggested that the relation between inept parenting and peer rejection was mediated by boys’ antisocial behavior and academic difficulties: Lower levels of parental skill were associated with higher levels of antisocial behavior and lower levels of academic performance; antisocial behavior and poor academic performance, in turn, were associated with higher levels of peer rejection.

These findings have been replicated and extended in a similar study conducted in the People’s Republic of China (Chen & Rubin, 1994). The pathway from parental authoritarian, punitive disciplinary practices to child aggression to peer rejection was replicated, but the authors also found that parental warmth and authoritative control predicted social competence, which predicted peer acceptance. These latter results suggest that the pathways to peer acceptance and rejection may be generalized across cultures.

There is also the possibility that the link between parenting and child outcomes of an adaptive or maladaptive nature can be attenuated by the quality of the child’s status in the peer group or the quality of his or her friendships. For example, the longitudinal relation between harsh parenting and negative outcomes of an externalizing nature is augmented when children have poor peer relationships (e.g., Criss, Pettit, Bates, Dodge, & Lapp, 2002; Lansford, Criss, Pettit, Dodge, & Bates, 2003). And Schwartz, Dodge, Pettit, and Bates (2000) found that children who experienced harsh home environments in the preschool years were more likely to be victimized by peers in the third and fourth grades; however, this correlation was stronger for those who had a lower number of friendships.

Researchers have shown that the relation between insecurity of attachment and negative outcome can be moderated by friendship quality. Thus an insecure attachment relationship may predict difficulties of an externalizing or internalizing nature, but only for those children or young adolescents who lack friendship or qualitatively rich friendship (e.g., Rubin, Dwyer, et al., 2004). Thus, in recent models pertaining to the links between parenting and adaptive or maladaptive outcome, it appears as if, by middle to late childhood, children’s friendships may buffer or exacerbate the statistical associations.

**Summary**

The existing research supports the general conclusion that socially successful children have mothers (and, where examined, fathers) who are more feelings-oriented, more positive, more skillful, more likely to use inductive reasoning, and less negative and coercive in their interaction with their children than their socially unsuccessful counterparts. The limits that the correlational nature of this workplace on our interpretations
should be recognized, however. Although it is likely that parents’ behaviors have an influence on their children’s behavior and success with peers, it must be acknowledged that parental behavior may be elicited by their children’s characteristics (Belsky, 1997; Putnam, Sanson, & Rothbart, 2002). Relatedly, it should be noted that, with few exceptions, research in this area focuses on the concurrent relations between parental practices and children’s social adjustment with peers and not these relations over time. Thus, although we take this work as generally supportive of a link between early parental behaviors contributing to children’s later social success, this link has not been thoroughly demonstrated.

**CHILDHOOD PEER EXPERIENCES AND LATER ADJUSTMENT**

Our goal, in this section, is to provide a summary of research in which the primary focus has been to identify aspects of childhood peer relationship experiences that predict subsequent adaptation and maladaptation. The predictors we examine fall at the levels of dyadic (friendship) and group (peer acceptance) relationships. Although we fully recognize that social behaviors (e.g., aggression), dispositions (e.g., temperament), and interactions (e.g., interactive conflict evoked by differences of opinion) may predict adaptive and malevolent “outcomes,” relevant discussions are presented elsewhere in this volume.

Significantly, the associations between the quality of peer relationships in childhood and subsequent difficulties have generally been examined in one of two ways. First, using case-control or follow-back designs, researchers have asked whether maladjusted and adjusted adolescents or adults differed as children in their adjustment with peers. Second, with the cohort, prospective, or follow-up design, researchers have asked whether popular and unpopular children differ in their incidence of later psychological and educational adaptation. We provided a lengthy overview of retrospective studies in the previous iteration of this chapter (Rubin, Bukowski, & Parker, 1998). Here, we focus only on studies in which prospective, follow-forward designs have been employed.

**Academic Adjustment**

For many children and adolescents, the primary venue for their experiences with peers is the school context. School is where many children meet peers, form friendships, and take part in groups. For friendless, rejected, or victimized children, the school must be a less-than-desirable context and certainly a place that is unlikely to promote learning or well-being. This is likely to be the case, not only for the child who was doing poorly in school to begin with, but also for the intellectually competent child who has trouble becoming part of the peer system. For these individuals, withdrawing via truancy or by dropping out may serve as the escape route to avoid constant rejection or victimization by peers. Alternatively, having a friend with whom one can share the struggles associated with acquiring new forms of academic competence may prove entirely helpful. For these reasons, peer relationships have been studied as a form of social engagement and social motivation that has wide ranging positive and negative effects on academic performance and a child’s sense of belonging and adjustment (Juvonen & Wentzel, 1996).

It has been shown that adjustment to school derives from several aspects of children’s relationships with peers. Wentzel and Asher (1995) found that popular children were viewed as helpful, good students. Rejected/aggressive students, relative to average and rejected/submissive children, showed little interest in school, were perceived by teachers as dependent, and were seen by peers and teachers as inconsiderate, non-compliant, and prone to causing trouble in school. Many of the problems that lead to rejection, such as the display of disruptive and aggressive behavior, make it difficult for a child to adjust to the climate of most classrooms.

These findings were consistent with longitudinal findings reported by Ollendick, Weist, Borden, and Greene (1992) who showed that children who were actively disliked by their peers were anywhere from two to seven times more likely to fail a subsequent grade than better accepted children. Similarly, Coie, Lochman, Terry, and Hyman (1992), in a 3-year longitudinal study, found that higher levels of social rejection predicted later grade retention and poorer adjustment to the transition to middle school. Likewise, based on a 4-year longitudinal study, DeRosier, Kupersmidt, and Patterson (1994) reported that the experience of peer rejection in any 1 of the first 3 years of their study placed children at significantly greater risk for absenteeism in the 4th year, even after statistically controlling for initial levels of absenteeism.

Given these longitudinal connections between peer rejection and later poor school performance and truancy, it is not surprising to learn that children who have
troubled relationships with their peers are more likely to drop out of school than other children. For example, Ollendick and colleagues (1992) found (in a 5-year longitudinal study) that 17.5% of rejected children had dropped out of school before the end of ninth grade compared to 5.4% of popular or average children.

Factors other than peer rejection appear to be important also. Most notably, friendships appear to influence school adjustment in many ways. In a longitudinal study with a representative sample of 475 12-year-olds, Cairns et al. (1989) found little reason to conclude that peer rejection by itself carries risk of later dropping out. Instead, the most powerful precursors of later dropping out were aggression and academic difficulties, especially when the latter were simultaneously present. They showed that many school dropouts appeared to have satisfactory social lives and, as a result, gravitate to peers who shared their negative dispositions toward school. These conditions, in turn, lead to lower academic performance and, in some cases, school drop out.

These latter findings are important because they show that peer group norms may influence academic performance. For example, Kindermann (1993) identified the subgroups that constituted the larger peer groups in the children’s elementary school classrooms. Each group was assessed according to its overall level of the academic motivational orientation. He found that children typically associated with peers who had a motivational orientation similar to their own. Moreover, using a longitudinal design, he found that children’s motivational orientations toward school were in accord with the initial orientation of the peer group in which they were constituents. Recently, Hymel, Comfort, Schonert-Reichl, and McDougall (2002) noted that adolescents who drop out of school are more likely than other students to have associated with peers who do not regard school as useful and important. These authors argued that the two variables from the peer system that appear to be associated with school drop out are (1) peer rejection and (2) close association with peers who place little emphasis on academic achievement and active school participation.

Similar factors seem to be important with younger children also. In a series of studies, Ladd and colleagues (Ladd, 1990, 1991; Ladd, Kochenderfer, & Coleman, 1996, 1997) demonstrated the potential influence of close dyadic relationships on academic performance. Ladd (1990) obtained repeated measures of friendship, sociometric status, and school adjustment during the transition to kindergarten. Although children’s personal attributes (mental age and prior school experience) predicted early school performance, measures of social adjustment with peers were much better predictors by comparison. Children with many friends at the time of school entry developed more favorable attitudes toward school in the early months than children with fewer friends. Those who maintained their friendships also liked school better as the year went by. Making new friends in the classroom also predicted gains in school performance. By comparison, measures of school performance at the start of the transition to kindergarten did not generally forecast gains in social adjustment. In addition, children who were rejected by peers were less likely than other children to have positive attitudes toward school and they were less likely to show a positive school performance. These findings show clearly that even during the early childhood years, friendships with and acceptance by peers are strongly linked to children’s academic success. Because Ladd used a longitudinal design in which initial assessments of academic orientation and peer relationships were accounted for, his findings suggest a causal link between friendship and academic outcome.

In a subsequent study, Ladd, Kochenderfer, and Coleman (1997) examined the association between children’s perceptions of best friendship quality in kindergarten and indices of scholastic adjustment (school-related affect, perceptions, involvement, and performance) in grade school (transition from kindergarten to grade school). Their main finding replicated, at the dyadic level, one of the findings observed by Kindermann (1993) at the group level. Specifically, Ladd et al. (1997) reported that children who viewed their friendships as a source of validation or aid, tend to (a) feel happier at school, (b) see their classmates as supportive, and (c) develop positive attitudes toward school.

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

In summary, it appears reasonable to conclude that children’s peer relationships play a central role in promoting or maintaining academic adaptation. This role occurs at several levels of peer group analysis: Peer rejection may serve the purpose of making school an unwelcome venue for children and adolescents, and the lack of friends may fail to provide the necessary support for children and adolescents to fare well in school. Alternatively, a child’s peer group may actually serve to develop and reinforce poor school-related goals and behaviors. Thus, the role of the peer culture appears too significant to be dismissed in practical efforts designed to encourage promising school aspirations and performance; indeed, this is an area that requires further empirical and practical substantiation in the future.

**Psychological Adjustment**

Ample evidence exists that difficulties with peers place a child at risk for developing subsequent problems of a psychological nature. Consistent with the general trends of the peer literature, research on the long-term consequences of peer experiences has focused largely on rejection and friendship.

**Externalizing Problems**

Results of longitudinal studies have indicated that peer rejection in childhood predicts a wide range of externalizing problems in adolescence, including delinquency, conduct disorder, attention difficulties, and substance abuse. These findings are not particularly surprising given the well-established link between aggression and peer rejection, and especially given that aggressive-rejected children are more likely to remain rejected over time.

Kupersmidt and Coie (1990) reported the findings of a longitudinal study in which they followed-forward a group of fifth grade children for 7 years. Children identified as sociometrically rejected were twice as likely to be delinquent (35%) in adolescence than was the case for the sample base rate (17%). In a second study, Olendick et al. (1992) followed sociometrically rejected, neglected, popular, controversial, and average status 9-year-old children for 5 years; at the follow-up, rejected children were perceived by their peers as less likable and more aggressive than popular and average children. Rejected children were also perceived by their teachers as having more conduct problems, aggression, motor excess, and attention problems than their popular and average counterparts. Moreover, rejected children reported higher levels of conduct disturbance and substance abuse and committed more delinquent offenses than the popular and average children. Controversial children were similar to rejected children on most measures. For example, children in the two groups committed similar numbers of delinquent offenses.

Similar findings concerning the predictive outcomes of rejected status have been reported by Bierman and Wargo (1995) and Coie, Terry, Lenox, Lochman, and Hyman (1995). In both of these longitudinal studies, peer rejection in combination with the early display of aggressive behavior, predicted externalizing problems. More recent research has shown that early peer rejection provides a unique increment in the prediction later antisocial outcomes, even when controlling for previous levels of aggression and externalizing problems (Ladd & Burgess, 2001; Miller-Johnson, Coie, Maumary-Gremaud, Lochman, & Terry, 1999; Miller-Johnson, Coie, Maumary-Gremaud, Bierman, & Conduct Problems Prevention Research, 2002; Wentzel, 2003). For example, Laird, Jordan, Dodge, Pettit, and Bates (2001) followed 400 children from early childhood through to adolescence. They reported that sociometric rejection at ages 6 to 9 years predicted externalizing problems in adolescence, even when controlling for the stability of externalizing problems over this age period.

Given the less than perfect stability of rejected status, it would seem reasonable to ask whether psychological risk status is equivalent for children with chronic versus episodic and transient rejection by peers. To address this question, DeRosier, Kupersmidt, and Patterson (1994) followed 640 7- to 9-year-old children for 4 years. They found that children who were more chronically rejected over the first 3 years of the study were at greatest risk for behavior problems in the 4th year, even after controlling for initial level of adjustment. More recently, Miller-Johnson et al. (2002) showed that peer rejection in first grade added incrementally to the prediction of early starting conduct problems in third and fourth grades, over and above the effects of aggression. Similarly, Dodge and colleagues (2003) reported that peer rejection predicted longitudinal “growth” in aggression over time (controlling for original levels of aggression) from early to middle childhood, and from middle childhood to adolescence. These researchers also found a developmental pathway in which peer rejection
led to more negative information processing patterns (i.e., hostile cue interpretation), which led to increased aggression. Certainly part of the association between rejection and externalizing involves the network of peer involvement experiences by rejected children. Brendgen, Vitaro, and Bukowski (1998) showed that rejected children were more likely than other boys and girls to associate with delinquent peers and that these associations accounted for their subsequent delinquency. Consistent with expectations related to the process of deviancy training (Dishion, Spracklen, Andrews, & Patterson, 1996), at-risk children, especially boys, who have aggressive friends appear to influence each other with reinforcements and enticements (Bagwell & Coie, 2004) so as to increase each other’s aggression. These processes likely explain why gang membership is a good predictor of developmental trajectories of aggression (Lacourse, Nagin, Tremblay, Vitaro, & Claes, 2003). These mechanisms appear to account for the development of substance abuse problems also (Dishion, Capaldi, & Yoerger, 1999; Dishion & Owen, 2002).

**Internalizing Problems**

Results from a growing number of studies have indicated that anxious-withdrawal is contemporaneously and predictively associated with internalizing problems during the life span, including low self-esteem, anxiety problems, loneliness, and depressive symptoms (e.g., Coplan, Prakash, O’Neil, & Armer, in press; Gest, 1997). Rubin and colleagues followed a group of children from kindergarten (age 5 years) to the ninth grade (age 14 years). They reported that withdrawal in kindergarten and second grade predicted the following outcomes in fifth grade: peer rejection, self-reported feelings of depression, loneliness, and negative self-worth and teacher ratings of anxiety (Hymel et al., 1990; Rubin & Mills, 1988). In turn, social withdrawal in the fifth grade predicted self-reports of loneliness, depression, negative self-evaluations of social competence, feelings of not belonging to a peer group that could be counted on for social support, and parental assessments of internalizing problems in the ninth grade (Rubin, Chen, McDougall, Bower, & McKinnon, 1995). Using a follow-back design with a group of adolescents who had been classified according to clique membership, Prinstein and La Greca (2002) found adolescents’ self-reports of peer crowd affiliation to be concurrently associated with self-concept and levels of internalizing distress. Their analyses of internalizing trajectories revealed that “Populars/Jocks” had experienced significant declines in internalizing distress across adolescence whereas “Brains” showed increases in internalizing distress between childhood and adolescence.

Researchers have also recently begun to explore the unique role of peer rejection in the prediction of internalizing problems. For example, in a longitudinal study following 405 children from kindergarten to grade 7, Kraatz-Keily, Bates, Dodge, and Pettit (2000) reported that peer rejection predicted increases in both internalizing and externalizing problems over time. Moreover, Burks, Dodge, and Price (1995) found that chronic rejection in middle childhood predicted the subsequent development of internalizing difficulties (depression, loneliness) 6 years hence. Their results held only for boys who had been rejected for 2 consecutive years; chronicity of rejection did not predict internalizing problems for girls. The authors speculated that girls’ rejection by the larger peer group is less severe than the lack of close, intimate relationships with a friend.

Relatedly, Gazelle and Ladd (2003) found that shy-anxious kindergarteners who were also excluded by peers displayed a greater stability in anxious solitude through the fourth grade and had elevated levels of depressive symptoms as compared to shy-anxious peers who did not experience peer exclusion. Indeed, Gazelle and Rudolph (2004) recently found that over the course of fifth and sixth grade, high exclusion by peers led anxious solitary youth to maintenance or exacerbate the extent of social avoidance and depression; increased social approach and less depression resulted from the experience of low exclusion.

In understanding the link between peer rejection and psychosocial adjustment, it may also be important to consider the role of children’s perceptions of their own peer rejection. Children’s perceived rejection has been associated with increases in depression over time (e.g., Kistner, Balthazor, Risi, & Burton, 1999). Moreover, Sandstrom, Cillessen, and Eisenhower (2003) demonstrated that children’s self-appraisal of peer rejection was associated with increased internalizing and externalizing problems even after controlling for actual peer rejection. Thus, children’s beliefs that they are rejected may play an influential role in the development of psychosocial maladjustment. The majority of the research regarding friendship and subsequent internalizing problems has considered the effects of friendship as either a moderator or as a mediator. Hodges, Boivin, Vitaro, and Bukowski (1999) examined whether friendship would moderate the associations between victimization and depressed af-
fect. Using a longitudinal design they showed that young adolescents with friends and who were victimized subsequently showed lower levels of depressed affect than did young adolescents who were friendless and victimized. Specifically, for young adolescents without a friend, being victimized at the beginning of the school year predicted increases in internalizing and externalizing behaviors from the beginning to the end of the school year, while there was no link between being victimized and adjustment for those with friends. Relatedly, Rubin et al. (2004) found that when fifth graders (10- to 11-year-olds) reported difficulties in their relationships with their mothers and fathers, having a strong supportive best friendship buffered them from negative self-perceptions and internalizing problems.

The notion that friendship may buffer rejected children from negative outcomes has been examined in a number of recent studies. However, the findings in these studies have been somewhat counterintuitive. For example, Hoza, Molina, Bukowski, and Sippola (1995) and Kupersmidt, Burchinal, and Patterson (1995) reported that having a best friend actually augmented negative outcomes for children who were earlier identified as rejected and aggressive. One explanation for these findings emanates from findings noted earlier that the friendship networks of aggressive-rejected children comprise other aggressive children; the existence of a friendship network supportive of maladjusted behavior may actually exacerbate the prospects of a negative developmental outcome for rejected children (Cairns et al., 1988; Tremblay, Mâsse, Vitaro, & Dobkin, 1995). Finally, Nangle, Erdley, Newman, Mason, and Carpenter (2003) examined whether the association between being well-liked by peers (i.e., being accepted) and feelings of loneliness would be explained by the mediating effects of friendship. In the model supported by their data, acceptance was an antecedent to friendship, which, in turn, negatively predicted loneliness and depression.

Summary

Studies of the predictive relations between children’s peer relationships and their subsequent academic and psychological adjustment generally support the notion that experiences with peers represent a risk factor for maladjustment. The extant data reveal that the types of friends a child may have, or the groups in which she or he participates, may influence individual adaptation.

Despite these conclusions, however, it is important to note that most of the longitudinal studies are typically limited in a few critical ways. First, the design of most studies precludes conclusions about causality. An interpretation of causality is warranted only when other potential pathways between the initial peer measures and the subsequent adjustment variables have been accounted for (Kupersmidt, Coie, & Dodge, 1990). For example, the initial level of adjustment must be controlled for if an unequivocal conclusion about causal relations is to be reached. Second, the possibility of multicollinearity must be considered. We have noted that there is neither conceptual nor empirical independence between measures of peer experiences taken from different levels of social complexity. For example, measures of aggression and group acceptance are intercorrelated. One repercussion of such associations is that if researchers want to conclude that a given measure from the peer domain predicts some outcome, it is necessary to control for the other measures with which the predictor may be confounded. Third, although the growth of the literature on peer relationships was inspired by studies that followed individuals over long periods, most current studies are of a short duration.

Considering how a set of measures will function together to affect outcome will also satisfy substantive objectives as well as methodological concerns. Inherent in theoretical positions regarding the peer system is the notion that experience in one domain of the peer system may compensate for, or enhance, experience in another domain. For example, if it is true that friends influence one another, the experience of having a friend will vary according to what the friend is like. Or, as we have shown, the experience of being rejected by peers appears to be different for children who are aggressive and those who are nonaggressive. The implication of these concerns regarding the associations among measures from different domains of the peer system is that using a single factor model to understand the link between peer experiences and outcome is likely to result in both an empirical and conceptual dead end.

CONCLUSIONS

In this chapter, we have reviewed literature concerning (a) developmental norms in children’s peer interactions, relationships, and groups; (b) the developmental significance of peer interaction, discussion, and shared differences of opinion; (c) the importance of friendship; (d) the significance of social skills and social competence; (e) the assessment of children’s peer experiences; (f) the proximal and distal predictors of peer acceptance; and
(g) the outcomes of qualitative differences in peer relationships histories. The study of peer relationships has never been as active or as diverse as it is now. As we have tried to show, remarkable progress has been made in describing and explaining the features, processes, and effects of children’s experiences with their age-mates. A consequence of this progress is that peer research must now answer new questions and deal with new challenges. An additional repercussion of our progress is that the gaps in our understanding of the peer system become clear. We address these concerns in this concluding section. Specifically, we identify three current challenges and opportunities for peer research, and we identify three topics that deserve more attention than they have received in the past.

Three Critical Challenges

First, we propose that the efforts to study peer relationships as a system need to be continued and intensified. The study of peer relationships has been frequently predicated on the concept that peer relationships, however construed, must be viewed as either an antecedent or consequence. Consistent with the view that development is a dynamic, multidirectional process (Sameroff & MacKenzie, 2003), the study of peer relationships needs to be understood as a complex system. Children bring various behaviors, needs, and cognitions into their peer experiences at the dyadic and group level. In turn, these individual characteristics affect the features of these experiences and the provisions that children derive from these experiences leading to changes, for better or worse, in the child’s subsequent short-term and long-term functioning. Although this approach has already been widely used, the adoption of a fully integrated model such as the one we have proposed has been rare.

The study of transactional models of development has been aided by the evolution of statistical procedures (e.g., structural equation modeling, growth curve analyses, hierarchical linear modeling, and survival analyses) that allow examination of bidirectional and reciprocal influences in multivariate longitudinal data sets. Although researchers of peer relationships have used these analytic procedures for at least 20 years, the number of investigations incorporating these techniques remains lower than one might expect.

Second, the features and effects of experiences with peers need to be understood according to the larger systems in which they are embedded and according to how they interface with other systems. Opportunities for peer interaction and relationships vary from one culture to another and different cultures ascribe different degrees of significance to them. The “content” of peer interactions and relationships is likely to vary, for example, as a function of how much power is ascribed to kinship structures and by who makes primary decisions about allowable extrafamilial relationships. Because the defining features or characteristics of what it means to be adapted to one’s social context will differ across contexts, the impact on adaptation of particular characteristics of peer relationships is likely to vary also. Finally, in a culture, the effect of the peer system is likely to vary according to differences between children in provisions they obtain in their families. Indeed, a central tenet of the seminal views of Sullivan (1953) was that the developmental significance of friendship will be higher for children whose relationships with parents was less than optimal than for other children.

A third challenge concerns the development of interventions to help children who have troubled experiences with peers and to more generally promote and facilitate more positive peer experiences among children. There now exists an extensive literature addressing how to improve children’s social skills (Bierman, 2003). Nevertheless, further development of techniques is needed to help children develop healthy friendships, to decrease the frequency and the effects of victimization, to regulate emotions and inhibit maladaptive behavior, and to enhance the power of the peer system as a positive factor in development. It is important to remember that intervention research provides an important assessment of the causal pathways implicated in the link between poor peer relationships and later adjustment. Specifically, through intervention, researchers can learn whether improvements in adjustment with peers also reduce children’s relative risk for subsequent adjustment disturbances.

An important feature of the literature on intervention is developmental sensitivity. The role that children’s peer relationships play in development appears to vary with age. For example, we have noted that children’s ideas about friendship become increasingly abstract with age. Furthermore, children’s friendships are posited to play an increasingly important role with age. Yet, little is known about the potential adaptive effects of friendship or about when it is in childhood that friendship can serve as an accelerator, promoter, or inhibitor of adaptation or as a buffer against the ill-effects of parental or peer neglect or rejection. This issue of the functional signifi-
cance of friendship may prove helpful in the planning of intervention programs for children who have poorly developed social skills and peer relationships.

Three Questions in Search of Answers

In spite of its diversity and breadth, at least three fundamental aspects of peer interactions, relationships, and groups are nearly absent from our review. First, what accounts for interpersonal attraction? The question of attraction may be implied in many of the topics we have discussed; nevertheless, its explicit presence as a topic of study in the contemporary literature is, at best, weak. This gap is surprising, and regrettable, given the potential significance of interpersonal attraction as a phenomenon at the front end of the relationship process. If we are going to claim that who one befriends or is attracted to makes a difference, knowing something about the factors underlying attraction is necessary. Thus far, two sets of ideas have been proposed. Whereas one model has emphasized general patterns of attraction (i.e., children are generally drawn to helpful peers), another has emphasized the importance of similarity on a dyadic level. Similarity as an explanation of attraction has elicited some empirical scrutiny (e.g., Hamm, 2000; Rubin et al., 1994), but the model has not been pushed hard or analyzed carefully. This inattention is surprising given the ease with which similarity between peers can be studied, especially by exploiting the advantages of such statistical techniques such as multilevel modeling.

Second, what aspects of peer interactions, relationships, and groups affect boys and girls differently? The study of sex differences is covered sporadically throughout this chapter and is seen also in Ruble, Martin, and Berenbaum (Chapter 14, this Handbook, this volume). There are many exemplary studies of how peer interactions and relationships differ for boys and for girls. A central gap in the literature is the understanding of whether some aspects of peer interactions and relationships affect boys and girls differently. This question is not about whether there are differences between the features of peer interactions and relationships of boys and girls. Instead, it is concerned with potential differences in the functions and the developmental significance of peer experiences for boys and girls. Knowing if and how the peer system works differently for boys and girls would certainly add to our understanding of peer relationships; it would augment our understanding of sexual differentiation as well.

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

Our review is now complete. We have examined that which we know and we have attempted to raise questions about that which we must come to know in the future. There is no doubt that many interesting and important questions remain unanswered. This should not be surprising given that the modern history of peer research began only 35 years ago with Willard Hartup’s 1970 chapter in this Handbook. But growth begets growth, and it is encouraging to realize that there is no shortage of topics for us to study.

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