

## CHAPTER 3

# *Peer Relationships in Adolescence*

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For decades, scholars have pointed to peer relationships as one of the most important features of adolescence. Peers have been alternately blamed for some of the more problematic aspects of adolescent functioning and praised for contributing to adolescent health and well-being. Recently, researchers have pushed the study of peer relations in exciting new directions, using more sophisticated methodologies to explore understudied aspects of adolescent peer relationships and mechanisms of influence. In this chapter, we review the issues that investigators have pursued over the past 5 years, since the last edition of this *Handbook*, that pertain to adolescent peer relations. We consider how findings from these studies improve our understanding of the role that peers play in the lives of adolescents and how these studies chart a direction for future research in the area.

### SCOPE AND OBJECTIVES

This chapter is not intended to be a comprehensive review of scholarly work on adolescent peer relations, which now spans well over half a century, nor is it our intention to summarize all of the recent work related to peer interactions. We pursue the more limited task of calling attention to research that moves the field past well established features of adolescent peer relations and interactions toward a more integrative understanding of how peers affect adolescent development. We pay particular attention to conceptual and methodological innovations that underlie recent scholarship.

Because most researchers rely on chronological age or school grade levels to define their samples, we focus on studies that concentrate on young people between the ages of 11 and 22, or roughly from the beginning of secondary school (most typically, grade 6 in North America) to the end of college. Operationalizing adolescence in this way is controversial. Increasing numbers of young people are entering puberty prior to the transition to secondary school (see chapter 5, vol. 1 of this *Handbook*), lending credibility to the argument that adolescence, at least as it is defined by biology, may be drifting down the age span to the elementary school years. However, we maintain that there are still major social structural changes that are age-graded or tied to school transitions in technologically advanced societies (in which most research on peer relations occurs). Because these changes have a substantial effect on peer relations, it is sensible to confine our analyses to the age and grade levels that we have stipulated.

The field of peer relationships encompasses a wide variety of affiliations. We give scant attention in this chapter to three important components of the field: romantic relationships, sexually based interests and activities, and groups of young people engaged in formal activities organized and supervised by adults. Each of these components is a central concern of another chapter in this *Handbook* (see, chapter 14, vol. 1; chapter 4, vol. 2; chapter 7, vol. 2 of this *Handbook*). Given recent efforts to integrate research across various facets of

peer relations, however, we caution readers that this partitioning may inadvertently diminish emphasis on scholarly efforts to provide a more integrative portrait of adolescent peer relations.

Finally, some of the intriguing research on ethnic identity and ethnic discrimination treats ethnic background as a peer group, or uses ethnic peers as a basis for examining how ethnic background affects adolescents (see chapter 15, this volume). There is little doubt that aspects of adolescents' interactions with peers and the adolescent peer system contribute to ethnic identity development, or that peer relationships contribute to norms about discrimination or activities that reveal racial and ethnic prejudices, but most of the studies that we examined did not approach peers from this perspective. For example, Killen et al. (2007) asked a sample of U.S. youths from minority and nonminority backgrounds to indicate how wrong it would be to exclude a peer from a school- or community-based social activity because of the peer's ethnicity, and then to justify their decision. Responses pointed to age differences in attitudes about racially motivated exclusion, but did not speak directly to the peer dynamics that might underlie age differences. As a result, we do not include this or similar studies in our review.

To fully appreciate current work in the field one must understand the foundation on which it is built. Before examining recent research, we quickly review ten assertions derived from older studies about peer relations in adolescence. The assertions constitute conventional wisdom about peer relations from which recent studies have been derived. Then, following Hartup's (2006) advice for organizing the literature, we proceed with an analysis of recent research as it pertains to four major facets of peer relations and interaction. The first encompasses characteristics of individuals that have some direct bearing on social relationships. Studies of popularity or social status, aggression, friendship expectations, and peer crowd identification exemplify this category. We then

turn attention to characteristics of relationships, including the degree of similarity or complementarity among friends, the quality of friendships, the nature of antagonistic relations, and features of peer groups. A third area of research concerns interpersonal processes that adolescents encounter in their relationships with peers. Peer influence is the dominant concern in this area, but there is also research on other social processes within friendships, antagonistic relationships (e.g., bullying behavior), and small groups. Finally, we consider contextual influences on peer interactions. In addition to the family and school, investigators have considered the role that ethnic or cultural background, and electronic media (especially, the Internet) play in adolescent peer relations. A few investigators have also engaged in cross-national comparisons of peer relations. We end with recommendations for future research on peer-related issues.

## CONVENTIONAL WISDOM ABOUT PEER RELATIONS

As evidence accumulated over the second half of the twentieth century, researchers came to several conclusions about the nature of peer relations in adolescence. The basis for these conclusions has been covered in greater detail in previous reviews of the literature (Berndt & Murphy, 2002; Brown, 1990; Bukowski & Adams, 2005; Hartup, 1999; Savin-Williams & Berndt, 1990). We offer a brief summary here to set the stage for closer examination of recent scholarship:

1. *Peer relations become more salient in adolescence.* The transition from childhood to adolescence engenders changes in the individual, social context, and social norms that serve to elevate the importance of peers. Young people become likely to spend more time with age mates, often with reduced oversight by adults, and they put greater stock in the expectations and opinions of peers. In some arenas, peers compete with adults as a significant source of

influence on adolescent attitudes, activities, and emotional well-being.

2. *With the transition to adolescence, peer relations grow more complex.* Concomitant with the growing importance of peers is an increase in the complexity of the peer system. New types of relationships emerge in adolescence—most notably, romantic relationships—and new levels of the peer system become apparent, such as reputation-based crowds or a broader youth culture. In selecting friends, romantic partners, or friendship groups, young people grow more sensitive to the ramifications of a specific relationship for their status or reputation within the broader peer system. In other words, young people must negotiate peer relationships and issues on a broader set of levels than they did in childhood. This prompts researchers to differentiate more carefully between dyadic and group relations and to distinguish among different types of relationships at each level. The dynamics within friendships cannot be expected to be equivalent to the dynamics within other dyadic connections: romantic relationships, sexual liaisons, mutual antipathies, or bully–victim relationships. Likewise, the features of interaction based friendship groups are likely to differ from those of reputation based crowd affiliations. Although different types of relationship or levels of peer association are distinctive, they remain interdependent. For example, openness to and success in romantic relationships are contingent on experiences within the friendship group (Connolly, Furman, & Konarski, 2000), and friendship norms vary among crowds (Finders, 1997).
3. *Friendships and friendship groups are characterized by similarity, which is a product of both partner selection and influence.* A fundamental feature of friendships is that partners share many characteristics in common. Through systematic research, investigators have discovered that this is

because similar background, tastes, values, and interests propel individuals to select each other as friends, and as these characteristics are affirmed within the relationship, the partners are likely to grow even more similar to each other (Cohen, 1977; Kandel, 1978). Moreover, if, over time, friends begin to diverge in attitudes and activities, the strength of their bond will diminish, often to the point that the relationship ends. The fact that similarity between friends is driven by the interaction of these three forces—selection, socialization, and deselection—makes it difficult to estimate the degree of influence that friends have on each other. Moreover, there are questions about whether adolescents remain equally susceptible to influence by a friend over the entire course of their relationship.

4. *Status or prestige is an important element of adolescent peer relations.* By definition, *peer relations* refers to associations among equals, but in reality the equality is confined to individuals who share the same life stage (fellow adolescents). Hierarchies emerge within aspects of the peer system, such that certain crowds have more status than others (Brown, Von Bank, & Steinberg, 2008; Horn, 2006), and cliques feature leaders and followers (Dunphy, 1969), if not an even more differentiated “pecking order” or dominance hierarchy (Adler & Adler, 1998; Savin-Williams, 1980). Even within friendships or romantic ties, which are dyadic relations supposedly founded on the principles of equality and reciprocity, one partner often appears to have more power than the other (Giordano, Longmore, & Manning, 2006; Updegraff et al., 2004). Within any group of young people, certain individuals are rated as more likeable than others, or more popular than others (Cillessen & Rose, 2005). As adolescents consider or negotiate relationships with specific peers or peer groups they must be sensitive

to status differentiations. The importance of status can vary among groups of young people (Peshkin, 1991), but the impact of the status dimension on peer interaction should not be neglected by researchers.

5. *Young people with good social skills are better adjusted than those with poor social skills.* Although intuitively obvious, it has been important for researchers to document that deficiencies in social skills place young people at risk for poor adaptation in terms of academic, social, and emotional outcomes. Much of this work has concentrated on childhood, when rudimentary social skills are learned and practiced. The changing peer landscape in adolescence, in which new types of relationships and levels of peer interaction emerge, calls for a broader set of social skills, underscoring the importance of continuing to study the development of social skills through this stage of life. However, measures of social self-concept and social skills often fail to assess the full range of skills that adolescents must develop to negotiate the social system effectively.
6. *Social acceptance is also a good indicator of adjustment.* Within a peer system young people can be grouped or ranked in terms of sociometric status as well as power or prestige. Across the last third of the twentieth century a vast literature developed tracking the characteristics of groups of children and adolescents identified by asking young people to nominate the peers (usually, school classmates) whom they like the most and like the least (or whom they most and least want to play with or have as friends or partners in a group activity). Applying a standard set of decision rules to these sociometric data, investigators differentiated groups of young people who were popular (widely nominated as well liked and rarely nominated as disliked), rejected (widely disliked and rarely liked), neglected (rarely nominated as liked or disliked), and controversial

(receiving considerable nominations as liked and disliked). The groups differed substantially and consistently on various emotional and behavioral outcomes (Cillessen & Mayeux, 2004b). Subsequent longitudinal studies indicated that sociometric status predicted (at modest levels) these outcomes, but to a certain extent was also predicted by them.

Although useful as a fundamental indicator of peer acceptance, sociometric categories have several limitations. First, each category is not necessarily cohesive. Most notably, investigators found substantial differences in adjustment and behavior patterns of rejected youth depending on whether or not they were aggressive toward peers. Also, the sociometric categorization was always a relative judgment, dependent on the features of the criterion group. If an adolescent was assigned to a classroom containing a large number of affable and well adjusted peers, her chances of being categorized as popular were less than if she had been placed in a classroom with many shy or highly aggressive students. Most significant was that the category system failed to reveal *why* peers regarded some children as likeable and others as disagreeable. Thus, the very convenient categorization system did not get at the heart of adolescents' relationships with peers.

7. *Self-perceptions of peer relations or the peer system are unreliable.* Early studies of peer relations and peer influences often relied upon respondents to report not only their own attitudes and behavior but also the attitudes and activities of significant peers. For example, estimates of peer influence were derived by correlating adolescents' reports of their own behavior and the behavior of their closest friend, friendship group, or generalized set of peers. Later investigations comparing these estimates to direct reports from (or observations of) the targeted peers revealed two patterns. First, adolescents tended to overestimate the degree of congruence between

themselves and their peers (Kandel & Andrews, 1987), so that inferences from many studies exaggerated the degree of peer influence. Second, adolescents also overestimated peer involvement in antisocial, unhealthy, or maladaptive behavior such as drug use, sexual activity, or inattentiveness to schoolwork (Prinstein & Wang, 2005). The implications of these findings are controversial, as scholars debate whether adolescents are likely to be influenced more by the actual attitudes or behaviors of peers or adolescents' *perceptions* of these peer characteristics. In any case, researchers have grown more cautious about relying upon adolescents to report on their peers' behaviors, preferring instead to gather information about peers directly from the appropriate associates of a target respondent.

8. *Peer affiliations and peer reputations are only moderately stable.* Unlike adolescents' relationships with significant others in the family, school (e.g., teachers), or community (e.g., health care professionals, activity supervisors such as coaches or music teachers), close peer associates are relatively ephemeral. Most early adolescents are likely to name a different peer as their best friend at the beginning and end of a school year. It is rare for a friendship group or clique to remain entirely intact over a 6-month period, and rarer still for early adolescents to retain the same romantic partner for this period of time. Studies suggest that sociometric status (being popular, accepted, neglected, or rejected) is not very stable, although more so for the rejected category than others (Jiang & Cillessen, 2005). Understandably, youth who retain the same sociometric classification over long time periods reflect the strengths or limitations of that status to a greater extent than sociometrically transient peers (Cillessen, Bukowski, & Haselager, 2000). The limited data that exist suggest that peer crowd affiliations often change as well (Kinney, 1993).

Two facets of adolescents' peer relationships point to stability, however. First, as individuals move through adolescence their friendships grow more stable and romantic relationships tend to last longer. Second, amidst routine changes in specific relationship partners and peer affiliations, adolescents do display stability in the *types* of individuals and groups with whom they affiliate. For example, individuals who are part of a predominantly aggressive clique at the beginning of the school year usually appear in an aggressive group at year's end as well, even if their group's specific membership has changed substantially (Cairns, Leung, & Buchanan, 1995).

9. *Peer influence is a reciprocal process.* A primary focus of studies of adolescent peer relations is the extent to which young people are influenced by peers. In most cases, researchers organize their studies to evaluate the degree of influence that some aspect of the peer system has on an adolescent, failing to take into account that adolescents influence others as well as being influenced by them. The reciprocal, transactional nature of peer influence is very difficult to capture in research studies, especially if the research is grounded in traditional socialization theories that are based on unilateral patterns of influence. We expect parents, teachers, coaches, or other adults to influence children to a much greater extent than they are influenced by them, allowing us to overlook reciprocal patterns of influence in these relationships more easily. Although investigators acknowledge the need to examine peer influence from a bilateral perspective, they still struggle to develop methodologies to accomplish this.
10. Studies of peer influence must consider characteristics of the influence agent, the target of the influence, and the individuals' relationship. An important step toward charting the reciprocal nature of peer influence is integrating three factors in a study's research design (Brown, Bakken, Ameringer, & Mahon, 2008; Hartup, 2005). One is the

characteristics of the individual identified (at least for research purposes) as the target of influence. Variability in adolescents' competence and self-confidence in a particular domain, along with their susceptibility or openness to peer influence, should affect the degree to which they are affected by others. Likewise, characteristics of the person or group identified as the agent of influence—expertise or credibility in a given domain and facility in exerting influence, for instance—should contribute significantly to the process. Finally, investigators must consider features of the relationship between influencer and influenced: the nature and strength of the bond, the amount of time they have been associated with each other, and so on. Placing all of these factors into a theoretical and measurement model is challenging, but as Hartup (2005, p. 388) notes, ignoring them is foolhardy: “Main effects conclusions in the peer contagion literature are, by and large, either oversimplified or dead wrong” (p. 388).

As new research builds on these fundamental assertions, investigators sometimes find it necessary to qualify them. Understandably, the assertions may not apply to all populations at all phases of adolescence in all historical circumstances. Nevertheless, they form a strong foundation on which to proceed with a better elaborated understanding of particular features of adolescents' interactions with age-mates. With this caveat, we turn attention to studies that build upon assertions 4–6 above in exploring individual characteristics that shape the type of peer relationships and experiences that adolescents encounter.

## PEER-RELATED CHARACTERISTICS OF INDIVIDUALS

### The Nature of Popularity

One of the mostly widely studied peer characteristics is popularity. In previous decades, investigators produced scores of reports based on sociometric data that allowed them to assign young people (mostly children) to

standard sociometric categories—popular, rejected, neglected, average, or controversial—based on the frequency with which they were nominated as liked or disliked by peers (usually, school classroom mates). Members of various categories were compared on a host of personal characteristics or indicators of well-being, usually demonstrating a distinct advantage for popular youth, especially in comparison to rejected peers. These studies have faded, mostly because the paradigm has been pushed to its limits in providing new insights (Rubin, Bukowski, & Parker, 2006), but also because of two problems in applying the paradigm to adolescent samples. First, the structure of middle schools in North American and several other nations was not well suited to standard sociometric techniques. With students migrating among classrooms with shifting sets of peers throughout the day, there was not the small, stable social unit on which social relationships (and sociometric status) could be based. Equally troublesome was that adolescents had already co-opted the paradigm's primary construct, popularity, but imbued it with a different meaning than the one that sociometric researchers had in mind. Rather than being well liked, nominated frequently as someone that people wanted to play with or have as a friend, a popular adolescent was someone with high status or prestige—and, probably, power—in the teenage social system.

### Two Forms of Popularity

In essence, researchers discovered that adolescence features two forms of popularity, one related to status and the other to being well liked. This discovery soon prompted investigators to explore the nature and distinctiveness of each form, in terms of their stability, intercorrelation, relation to other personal characteristics, and influence on social and psychological adjustment. Although there is not complete consensus on labels for the two forms of popularity, they are most commonly referred to as *sociometric popularity*, referring to the degree to which individuals are well liked or

sought out as activity partners or friends, and *perceived popularity*, indicating the amount of status or prestige assigned to a person (Cillessen & Rose, 2005). We will describe the literature with these terms.

Investigators have found that sociometric and perceived popularity are significantly correlated, sometimes to a high degree (de Bruyn & Cillessen, 2006a, 2006b) but more often moderately (Rose, Swenson, & Waller, 2004). An interesting longitudinal study of middle-class U.S. youth indicated that the correlation between perceived and sociometric popularity declined substantially between grades 4 and 9, especially for girls, to the point that among 9th-grade girls the two were no longer significantly associated (Cillessen & Mayeux, 2004a).

One explanation for the growing distinctiveness of the two forms of popularity is that as the peer system grows more complex across adolescence, groups emerge that are organized by status or prestige. It is common for young people to label one of the higher status groups the “populars,” but this group is not necessarily well liked (Eckert, 1989). Likewise, members of groups with extremely low status (i.e., low perceived popularity) are not sought out for friendship (Kinney, 1993), so that it may well be the middle-status groups (with moderate perceived popularity) whose members are best liked, on average. Another possibility is that as status (perceived popularity) becomes a defining characteristic of crowds, likeability (sociometric popularity) serves to further differentiate clusters of high-status youths. In interviews with a sample of Dutch early adolescents, de Bruyn and Cillessen (2006b) discovered two distinct subgroups of high-status youths. The “prosocial populars” were described as friendly, helpful, social, and academically engaged, whereas the “populists” were regarded as arrogant, cocky, aggressive, and antisocial. Applying cluster analysis to a similar sample of Dutch females of the same age, de Bruyn and Cillessen (2006a) found five groups varying in perceived popularity and school engagement. Both high status and

low status groups were further differentiated, in part, by their average level of sociometric popularity. The “popular studios” group was well liked by peers, whereas the “popular disengaged” group was not.

### *Stability of Popularity Ratings*

To further understand the disaggregation of popularity ratings over time, it is helpful to consider the stability of these ratings. Few investigators have examined sociometric ratings over periods longer than a year. One important exception is a study by Cillessen and Mayeux (2004a), who tracked popularity scores of a sample of middle class U.S. youth from grades 5 through 9. Year-to-year stability correlations were quite high (0.50–0.90), but 4-year stability coefficients were more modest (0.40–0.50). Perceived popularity ratings were more stable among boys than girls, whereas sociometric popularity scores were more stable among girls than boys. Among girls, perceived popularity had higher stability coefficients than sociometric popularity; the pattern was not as clear among boys. Both ratings had lower stabilities across school transition years (from elementary to middle school, and from middle to high school) than nontransition years.

School transitions precipitate transformations in the peer social system (Kinney, 1993) and this process may serve to differentiate sociometric and perceived popularity. In some school contexts, for example, ethnic background becomes a stronger basis for friend selection and group formation as young people move into middle school. In a sample of 6th graders attending multiethnic schools in California, Bellmore, Nishina, Witkow, Graham, and Juvonen (2007) noted a within-ethnic group bias in sociometric popularity ratings of Latino, Asian-American, and European-American students: Each of these groups tended to nominate coethnic peers as well liked. African-American students showed more of a global bias, naming coethnic peers as well-liked and disliked, but ignoring nonethnic peers in their nominations. As variables such as ethnicity become more

salient to adolescents, they affect the identification or formation of in-groups and out-groups. In turn, this affects popularity ratings. It is wise for investigators to keep these social processes in mind as they trace individuals' popularity among peers across adolescence.

### *Correlates of Popularity*

One variable that consistently differentiates sociometric and perceived popularity is aggression. As a general rule, aggression enhances one's status, but detracts from likeability (Cillessen & Borch, 2006; Sandstrom & Cillessen, 2006). Researchers have been intrigued particularly by the positive relation between aggression and perceived popularity because it defies the consistent findings in childhood samples that aggression detracts from a child's "popularity" (what becomes labeled as sociometric popularity in studies of older youth) among classmates. The association between aggression and perceived popularity builds over time. Rose, Swenson, and Waller (2004) found that aggression was negatively associated with young people's status among classmates in 3rd grade and not significantly related to status in grade 5, but then grew more positively related to status from grades 7 to 9. The pattern was stronger for measures of relational than physical aggression (also referred to as "overt aggression"). Becker and Luther (2007) found that the connection between aggression and perceived popularity was as strong among urban, economically disadvantaged, ethnic-minority early adolescents as among their counterparts in an affluent, predominantly European-American suburban school.

Longitudinal studies have begun to flesh out the association between aggression and popularity. Rose, Swenson, and Waller (2004) found that relational aggression significantly predicted perceived popularity 6 months later in a sample of predominantly European-American early adolescents, whereas physical aggression was negatively correlated with later perceived popularity over the same short period. Interestingly, initial rates of perceived

popularity predicted later overt aggression scores in this sample, but not physical aggression. However, in a similar sample of 5th graders, Sandstrom and Cillessen (2006) found that perceived popularity did predict rates of overt aggression 3 years later, but only among boys. Across grades 5–9, Cillessen and Mayeux (2004a) reported that physical aggression was increasingly accepted by young people, but had diminishing effects on perceived popularity. However, whereas relational aggression became more denounced across this grade span, it was increasingly associated with perceived popularity, but especially among girls. Following adolescents from grade 5 through the end of high school, Cillessen and Borch (2006) concluded that girls must accept a trade-off: Relational aggression increasingly secures their status among peers, but at the expense of being well liked. Boys in this study were more successful at negotiating high status while remaining well liked, possibly because they were not punished as much by peers for their aggressive behavior.

The findings in these sociometric studies reflect interpersonal dynamics noted by ethnographers who have carefully examined interaction processes in girls' friendship groups (Adler & Adler, 1998; Simmons, 2003; Wiseman, 2002). Group leaders are observed to employ aggressive tactics (especially relational aggression), or direct their subordinates to do so, in order to preserve their position or maintain the integrity of the clique. Similar studies of boys' friendship group interactions during adolescence are lacking. Such studies of relationship processes are important to pursue to understand the connection between popularity and aggression more completely. Schwartz, Gorman, Nakamoto, and McKay (2006), for example, found that, across grades 9 and 10 in a sample of lower-class youth, as perceived popularity increased, so did inattentiveness to school, but only among youth who are high in aggression. Rose, Swenson, and Waller (2004) reported that the association between relational aggression and poor friendship quality was



stronger among those who were high in perceived (as well as sociometric) popularity. Associations between aggression and popularity are not entirely straightforward and deserve closer scrutiny.

Investigators have attended to characteristics beyond aggression as correlates of popularity, finding that sociometric popularity is generally associated with positive adjustment and prosocial behavior, whereas correlates of perceived popularity are not as clear (Becker & Luthar, 2007; Cillessen & Rose, 2005). In an ethnically and economically diverse sample of high school youth in the United States, Mayeux, Sandstorm, and Cillessen (2008) found that, controlling for sociometric popularity, perceived popularity in grade 10 predicted rates of alcohol use and sexual activity 2 years later. The inverse was not true (except that cigarette use in grade 10 predicted later perceived popularity for boys), nor was sociometric popularity in grade 10 a significant predictor of problem behavior in grade 12.

Variable-centered analyses can mask the tendency for personal characteristics to correlate with popularity in different ways among subgroups of youth. De Bruyn and Cillessen (2006a) applied cluster analysis to self-, peer, and teacher ratings of popularity and academic behaviors to identify groups of Dutch girls, age 13–14. The five clusters that emerged ranged from high-status and studious girls, who displayed high sociometric popularity and prosocial behavior, to low-status, disengaged youth, who had poor academic records, were regarded as unlikeable, and were often subjected to bullying.

### *Methodological Considerations*

A major concern in sociometric studies of adolescents is obtaining an adequate sample to achieve reliable ratings. Unlike younger children, whose peer relationships are usually confined to a self-contained classroom, adolescents are likely to draw associates and establish their reputation among a larger network of peers. Asking adolescents to rate or even draw

nominations from this broader network of peers is a foreboding task. So is the challenge of obtaining high participation rates from an entire school grade. Internal review board policies in several countries, requiring documented parental consent for all participants, even those who are nominees but not respondents, further complicates data gathering, often resulting in biased samples with restricted participation among immigrant, minority, and economically disadvantaged youth.

In an effort to respond to these issues, Prinstein (2007) compared three ways of obtaining sociometric ratings: gathering data from as many students in the targeted grade level as possible (the standard, “full rating” procedure), relying on ratings from a random subgroup of students (a small, randomly chosen subset of the full sample), and using a panel of social experts (nominated by teachers as especially attuned to peer social dynamics). As a group, the experts enjoyed higher ratings (from the full sample) of sociometric popularity than either other rating group. Their judgments of perceived popularity were highly correlated with those of the full sample (around 0.90); correlations between the two groups on sociometric popularity were also substantial (around 0.60). Correlations between the random sample and full sample were also significant, but at slightly lower levels than the experts and full sample. Prinstein concluded that impaneling experts may be a viable alternative to drawing sociometric data from the much larger sample usually expected in sociometric studies.

The different patterns that emerge in person centered (cluster) analyses than variable centered approaches underscore the value of applying a variety of methods to examining popularity, as well as other characteristics associated with adolescent peer relations. The sociometric task used to rate adolescents’ popularity varies among studies. Some investigators rely on nominations, whereas others have respondents rate each peer. The number of nominations permitted is sometimes limited and other times unrestricted. Questions used to

elicit nominations for sociometric popularity vary, although, curiously, researchers tend to approach perceived popularity more directly by asking respondents who is “popular” (or how popular or unpopular a given student is) without elaborating on the meaning of popularity. The need for more standardized measures and strategies is debatable. Although standardization facilitates direct and valid comparison of findings across studies, it constrains the discovery of social dynamics that often emerge when slightly different methods are employed to address similar questions.

### **Summary**

The burgeoning research on popularity in adolescence underscores the need to attend to features of the adolescent social system in seeking to understand how personal characteristics affect adolescent peer relations. The distinction between perceived and sociometric popularity is fundamental and dramatic, yet evolving over the course of adolescence. It may well depend on the composition of the peer system as well, although Becker and Luthar’s (2007) research suggests that there are strong similarities in the meanings of these terms across different social ecologies.

Some may question whether popularity is best regarded as a personal characteristic that affects social relationships or a quality of relationships. Although most investigators regard it as the former, evaluations of an individual’s popularity often reflects how an adolescent is perceived to be integrated into the social system. There are also hints that one’s popularity changes as the social system changes (at school transition points). In future research, both perspectives on popularity should be considered.

### **Aggression and Victimization**

Studies of peer-related aggression are not focused exclusively on connections to young people’s sociometric status. In previous investigations, especially those dealing with younger populations, scholars have demonstrated that children high in aggression have comparatively

more difficulty making and keeping friends, especially if they are inclined to attribute aggressive intent to ambiguous behavior of peers (Rubin et al., 2006). Often, these studies have focused on physical aggression, or what is now more commonly referred to as overt aggression. Current interest has concentrated on the prevalence and effects of different types of aggression, especially the distinction between overt and relational aggression. Using vignettes to measure hostile attributional bias in a sample of 4th- through 6th-grade girls, Crain, Finch, and Foster (2005) were surprised to discover that hostile attributional bias was not significantly related to adolescents’ level of relational aggression (as rated by peers). It is possible that the vignettes failed to measure the cognitive processes captured by previous studies of the subject, but it is also possible that the bias applies less to those who are inclined to relational, as opposed to overt aggression.

French, Jansen, and Pidada (2002) speculated that the higher rates of relational aggression found among girls, compared to boys, in North America might be mitigated in more collectivist cultures. They compared references to aggression among 5th and 8th graders in the United States and Indonesia who were asked to name two peers they disliked and then explain why they disliked them. There were no significant cultural differences in references to verbal aggression, but physical aggression was mentioned more often by Indonesian youth. As in previous studies, girls noted relational aggression issues more often than boys.

Most recent studies of adolescents have focused on youths as victims rather than perpetrators of aggression, often exploring samples other than predominantly middle-class European Americans, who have dominated previous research. Storch and Masia-Warner (2004) found that rates of relational and overt aggression among students in an all-female, urban parochial high school (still predominantly White and middle class) were comparable to those previously reported in coeducational samples. Girls who encountered only relational

aggression or both types of aggression were relatively high in social anxiety and loneliness. These associations were reduced (although still significant) among girls who received higher levels of social support from peers. In a primarily African-American sample of adolescents, Goldstein, Young, and Boyd (2007) found that girls witnessed and experienced more relational aggression than boys. The more relational aggression these adolescents perceived, the more unsafe they felt at school and, among boys, the more likely they were to bring a weapon to school. Thus, at least in this context, relational victimization appeared to have similar consequences to the more physical forms of intimidation documented in previous research. In a sample of Italian mid-adolescents, Gini (2008) found, not surprisingly, that the more adolescents encountered overt or relational victimization, the less satisfied these youth were with their friendships. However, the association was mitigated among adolescents expressing a relatively low need for an affective relationship, but only with regard to relational—not overt—aggression.

These studies suggest that relational aggression may be as salient, if not more so, than overt aggression in adolescents' peer interactions, perhaps because over the course of adolescence, relational aggression becomes more common (and more widely accepted) than physical aggression. Not all investigators are convinced that type of aggression is the key factor in understanding the impact of victimization, however. Nylund, Bellmore, Nishina, and Graham (2007) assessed students' experiences with various types of victimization across 3 years in a lower socioeconomic status (SES), urban, multiethnic sample of U.S. early adolescents. Using latent class analysis, they discovered that amount of victimization differentiated respondents more clearly than type of victimization. Unfortunately, their measure of victimization included only one or two items per type, suggesting that the salience of degree of victimization (rather than

type of aggression) may have been a measurement artifact.

The transformation across adolescence in the most common forms of aggression raises the issue of whether young people with particular personal characteristics remain equally vulnerable across this age period. Little attention has been given to this issue. Because aggression (especially overt aggression) is more common in early adolescence, most research has concentrated on this period. This may be sensible from an intervention point of view, but to fully appreciate how individual characteristics influence or are influenced by experiences with peers, investigators must devote more attention to older age groups. Likewise, as will become apparent later in this chapter, it would be useful to differentiate more clearly—both conceptually and methodologically—between identifying oneself as a bully or victim and being the perpetrator or recipient of aggressive behavior.

### Friendship Motives and Expectations

Issues of popularity and aggression deal with peer relations more generally. Some research concentrates on personal characteristics related to particular types of peer associations. Much of this work is focused on friendship.

In previous decades, several North American scholars have traced developmental changes in the characteristics that young people consider most critical in their friendships (e.g., Bigelow & LaGaipa, 1980). From early to middle adolescence they have noted a transformation as young people ease up on efforts to retain intense, intimate, and exclusive friendships focused on mutual trust in favor of more relaxed alliances that recognize the needs of partners both within and beyond the relationship. Entry into longer term romantic relationships reduces the need for highly intimate friendships, and actually enhances the value of friends who remain loyal and committed through all sorts of interpersonal experiences.

Recently, some scholars have questioned whether the same transformations are

anticipated among youth in more collectivist cultures, who not only emphasize interdependence in relationships more than their counterparts in individualistic cultures but may also delay romantic and sexual alliances until late adolescence. Gummerman and Keller (2008) compared friendships expectations in samples of Icelandic, Russian, German, and Chinese youths who ranged in age from 7 to 15. Differences across samples in how data were collected obfuscate interpretation of findings, but some cultural distinctions do conform to the authors' expectations. For example, older Icelandic youths put less emphasis on trust and sharing feelings, and more on simple conversation, than Russian and Chinese adolescents did. Such findings remind scholars that friendships, or peer relationships more generally, occur within a sociocultural context and can be heavily influenced by norms and expectations within the broader context—an idea to which we will return at the end of the chapter.

Even so, there are specific characteristics that can facilitate or inhibit adolescents' capacities to form effective friendships. Marsh, Allen, Ho, Porter, and McFarland (2006) demonstrated that, over time, early adolescents with high levels of ego development are more successful in forming close attachments to friends, establishing intimate friendships, and achieving a high level of (sociometric) popularity among peers. However, Parker, Low, Walker, and Gamm (2005) traced inclinations toward and reputations for jealousy in friendships among White, lower to middle-class rural early adolescents in the United States. Feelings of jealousy exacerbated a sense of loneliness, even among those who lacked friends and were not well liked. Girls reported more jealous feelings over friends than did boys and also had a stronger reputation for jealousy in general peer relations. Nevertheless, jealousy had equivalent effects across gender on peer victimization, loneliness, and social rejection. Jealousy regarding friends diminished with age, as one would expect from observations of age changes in friendship expectations in

individualistic societies (Bigelow & LaGaipa, 1980).

### Peer Crowd Identities and Orientations

Complementing the work on individual characteristics that shape or affect friendships is a handful of studies concerned with adolescents' crowd affiliations. Recall that crowds are reputation-based clusters of youths, whose function in part is to help solidify young people's social and personal identity (Brown et al., 1994). Accordingly, it is reasonable to ask how adolescents select a crowd with which to identify, or are driven to this choice by personal characteristics.

Two studies have examined this process prospectively, tracing the personal traits or behaviors in preadolescence or early adolescence that predict crowd membership later in adolescence. Prinstein and La Greca (2002) examined how measures of depression, loneliness, anxiety, and self-esteem, gathered when a multiethnic sample of U.S. children were in grades 4–6 (Time 1) foreshadowed the peer crowd with which they identified 6 years later, in the middle of high school (Time 2). Mean scores for members of the four crowd comparison groups—jocks/populars, brains, burnouts, and average or no crowd affiliation—were significantly different on two of the Time 1 measures, and on all four measures when readministered at Time 2. The crowds also differed on cross-time trajectories for all four measures. The advantaged position that brain crowd members enjoyed on all four measures at Time 1 dissipated, to the point that they had marginally higher anxiety levels at Time 2 than other groups. By comparison, jocks/populars improved across time from relatively moderate to much healthier levels on all four outcomes. It is not possible to determine from these data whether these trajectories in adjustment measures presaged entry into particular peer groups or were affected by crowd identification that occurred earlier than Time 2, but the data suggest that there is some predictability

prior to adolescence in young people's ultimate crowd identification.

In a related study, Stone et al. (2008) traced how self characteristics in grade 6 among a sample of working-class European-American youths predicted crowd identities 4 years later, at about the same age as they were measured in the study by Prinstein and La Greca (2002). The crowd identities from which respondents chose were fashioned from a popular movie at the time of data collection and featured groups similar to those commonly observed using more systematic and ecologically grounded methods for identifying major crowds in a given social milieu (see, e.g., Brown, Herman, et al., 2008; or Prinstein & La Greca, 2002). Stone and colleagues used discriminant function analysis to determine how closely each crowd compared on members' Time 1 personal traits. The two functions emerging in each gender-specific analysis underscore the importance of academic orientation, athletic competence, and physical appearance in early adolescence as setting young people on trajectories toward certain crowd identities in mid-adolescence.

Two recent and simpler cross-sectional studies elaborate on the notion that crowd identifications are linked to personal characteristics. Both of these studies involve samples outside of North America. Heaven, Ciarrochi, Vialle, and Cechavicuete (2005) presented freshmen (age 12) in Catholic high schools in Australia with a list of five crowd types garnered from previous studies in the United States (including Prinstein & La Greca, 2002) and asked them which group was most like the "kind of students you hang around with." Comparing responses to participants' self-reports of parenting styles and depressive attributional style (DAS), they found that "rebels" were markedly higher than other groups on DAS, but low on exposure to authoritative parenting. The studious group had the most adaptive DAS. Delsing et al. (2007) used a more sophisticated strategy to identify crowds uniquely relevant to their sample of Dutch youth in grades 7–12. Factor

analyses were used to reduce the list of crowds to four major dimensions, which were then compared on measures of internalizing and externalizing problems. High scores on the achievement oriented and conventional dimensions were associated with low scores on externalizing measures, whereas high scores on the "alternative" and the urban crowd dimensions were positively associated with both internalizing and externalizing variables. In both studies, members of less conventional crowds displayed higher rates of problem behavior.

In a study of students from several multiethnic high schools in the United States, Brown et al. (2008) pursued a different question: whether ethnic minority group members who identified with an ethnically defined crowd (as opposed to a group based on abilities, interests, or peer social status) were drawn to the crowd by factors associated with ethnic discrimination and isolation or variables associated with a positive ethnic identity. The study also compared the same youths, classified into ethnically oriented or nonethnic crowds as determined by peer ratings. In both analyses, the most consistent correlate of ethnic crowd affiliation was the ethnic homogeneity of their friendship network. There were additional correlates, some supporting the argument that ethnically based crowds exacerbate prejudice and discrimination, and others suggesting that they may facilitate positive ethnic identity.

The connection in Brown et al.'s (2008) study between crowd identity and friendship networks, however, hints at a missing link in the research on peer-related personal characteristics. With rare exceptions, scholars have confined their study to one segment of the peer system: relationships in general, dyadic associates (mostly friendship), or crowd affiliation. Complementing these valuable efforts should be more studies that cut across segments. How are crowd affiliations conditioned by friendship networks? Why is the association between perceived popularity and aggression strong in one crowd or friendship group and not another?

## Conclusions

The extensive literature concerning peer-relevant personal characteristics has yielded important insights about peer processes in adolescence, but its conceptual foundations are tenuous. Some scholars base their research on a broad array of theories, and others on no theory at all. This contributes to the segmented and disjunctive sense that one gets from reading this literature, and it compromises the task of comparing findings across studies or linking results across research questions. It would be helpful to have a core set of theories that can spawn a more systematic approach to issues in this area of research.

## FEATURES OF PEER RELATIONSHIPS

Although it is certainly important to examine individual predispositions, abilities, and attitudes that allow adolescents to connect to peers, at some point the study of adolescent peer relations must turn to the actual relationships forged with age-mates. To a modest but increasing extent, researchers have moved beyond their prior concentration on peer-related characteristics of individuals to consider the characteristics of peer relationships. One classic concern that still receives some attention is similarity in friendship—the degree to which friends are more similar to each other than random pairings of individuals, or the traits on which similarity between friends is strongest. Because evidence of such similarity is overwhelming (our third point of conventional wisdom), most investigators have progressed to other topics. Chief among these is the quality of friendship. Yet friendship is not the only major type of affiliation that adolescents forge with peers. A small cadre of researchers has shifted focus from friends to enemies, examining the frequency and features of mutual antipathies. A common example of such dyads is the bully and her or his victim, but it also includes sets of antagonists who are on more equal footing. Finally, there is a small set of studies oriented toward

the features of peer groups. We comment on research in each of these four areas.

## Similarity Between Friends

In the past, researchers devoted considerable attention to the degree and derivation of similarity between pairs of individuals who were close friends. Key questions included whether friends' similarity arose from selection (the process of choosing someone as a friend who is already similar to oneself), socialization (growing similar to one another through interaction), or both processes, and whether degree of similarity was an important factor in the quality or duration of the relationship or in partners' individual adjustment. Some fairly simple assessments of friend similarity still appear in the literature. For example, using the Add Health data set, Kao and Joyner (2004) discovered that most adolescents named a peer from their own racial or ethnic group as a best friend, and the higher a peer was on respondents' list of five closest same-sex peers, the more likely they were to report engaging in activities with the peer. Generally, however, analyses have grown more sophisticated.

Daddis (2008) used difference scores to compare beliefs about personal jurisdiction (i.e., beliefs about whether adolescents or parents should have authority over various decisions (see chapter 7, vol. 1 of this *Handbook*) among dyads of friends (individuals who chose each other as close friends) or nonfriends (neither named the other as a friend). His expectation that friends would have more comparable beliefs was supported only occasionally, and the moderating effects of age, duration of the friendship, and degree of interaction were inconsistent and sometimes contrary to the author's hypotheses. Nevertheless, the methodological approach used in the study was promising. In a sample of urban, economically disadvantaged, ethnic minority early adolescents, Card and Hodges (2006) found that friend dyads (reciprocal nominations on a sociometric measure) shared more common targets of aggression than nonfriend dyads,

and the more that dyad members had a reputation among peers as aggressive, the more targets of aggression they had in common. Their analyses point to the significance of coalitions in bullying behavior among youth with this demographic profile.

One of the most intriguing recent studies focusing on friendship similarity—and complementarity—is Guroglu, van Lieshout, Haselager, and Scholte's (2007) longitudinal analysis of bullying and psychological adjustment in a large sample of Dutch youths. The authors identified friend dyads (reciprocated nominations), then used dyad mean and discrepancy scores on self-reports of bullying and victimization, along with peer reports of various social behaviors, as the basis for a cluster analysis to identify different types of dyads. Three major clusters emerged: socially withdrawn dyads (high mean scores on victimization and low peer ratings of prosocial behavior, but also high discrepancy scores on most variables), prosocial dyads (high ratings for prosocial behavior and low scores on other variables, with generally low discrepancy scores), and antisocial dyads (high mean as well as discrepancy scores on antisocial behavior and bullying). The authors then used cluster analysis again, within cluster types, to further differentiate each type of friendship. As expected, they found that socially withdrawn youths often paired with a more socially accepted peer, and antisocial youths often befriended a peer with an antisocial but less bullying-oriented background. In other words, many friend dyads featured basic similarity, but also complementarity on certain characteristics. Subsets of dyads within the three major clusters were distinctive on several psychosocial outcomes; they also differed from classmates who did not have reciprocated friendships in distinctive ways.

These findings affirmed the authors' hypotheses, based on previous studies, that bullies often pair up with aggressively oriented peers who act more as assistants or audience, rather than coparticipants in their bullying exploits.

Likewise, socially withdrawn and victimized youth pursue friendships with a peer who is socially skilled enough to avoid victimization, and thereby shield the victimized adolescent to some extent from the ravages of peers. True similarity in friendship is most common among a subset of adolescents who are prosocial in orientation. Using similarity/complementarity analyses to identify different types of friend dyads and explore their implications for adolescent adjustment is a particularly promising approach for future research.

### Friendship Quality

Along with studies of peer popularity, research on the quality of adolescent friendships has been plentiful in recent years. Many of these investigators have employed one of three standard measures of quality: the Friendship Quality Scale (FQS; Bukowski, Hoza, & Boivin, 1994), the Friendship Quality Questionnaire (FQQ; Parker & Asher, 1993), or the Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985), but some studies feature observational assessments or self-report measures of more specific aspects of relationship quality. Along with efforts to sketch basic features of friendship quality, investigators have been concerned with both the antecedents and the correlates or consequences of friendship quality, and occasionally with ways in which it moderates associations between other variables and adolescent adjustment.

### Basic Features

The nature of gender differences has preoccupied some researchers, with the general expectation that female adolescents manifest higher quality, more intimate relationships than males (e.g., Radmacher & Azmitia, 2006). For example, Brendgen, Markiewicz, Doyle, and Bukowski (2002) found more positive (and fewer negative) friendship features among Canadian adolescent girls than boys, using both self-reports (FQS) and observer ratings (which were substantially correlated with each other). Curiously, boys self-disclosed

primarily to their best friend, whereas girls self-disclosed rather evenly across their friend network.

Ethnicity has also been a basic issue in research on friendship quality. In a short-term (6-month) longitudinal study of middle-class Canadian youths from various ethnic backgrounds, Schneider, Dixon, and Udvari (2007) found that interethnic relationships were less stable than ethnically homogeneous friendships. Only 45% of interethnic relationships continued at both measurement points, compared to nearly 70% of ethnically homogeneous alliances. Interethnic relationships were also rated (by participants) as lower in positive qualities, more competitive, and more conflictual at both time points. The authors speculated that coethnic friendships may be advantageous at this age period because they facilitate ethnic identity development and allow for consistency and maintenance of cultural beliefs. Nguyen and Brown (in press) reached a similar conclusion in their study of immigrant Hmong teenagers in the United States.

Occasionally, investigators consider more specific characteristics than the general features tapped by friendship quality measures. Updegraff et al. (2004) explored perceptions of control in friendships among European-American, lower- to middle-class, rural youth in the United States. Generally, adolescents with unequal distributions of control did not report less positive experiences than peers in more balanced friendships. However, those who felt more controlling in their friendships did report moderately higher levels of conflict. Also, there was some consistency in control levels across relationships: Perceived control in sibling relationships was associated with perceived control in friendships, and boys' reported level of control in their friendships corresponded to their fathers' reports of control in their spousal relationship.

#### *Antecedents Of Friendship Quality*

An important objective of researchers is to identify factors that contribute to the quality

of adolescent friendships. As in studies of popularity, aggression has received considerable attention in this regard. Cillessen, Jiang, West, and Laszkowski (2005) identified same-sex friendship dyads (reciprocal nomination as close friends) within a sample of working- to lower-middle-class high school students, then applied the actor-partner interdependence model to data from the dyads to get more accurate estimates of the effects of aggression on friendship quality (measured with the FQS). Adolescents in this sample who rated themselves high in overt aggression depicted their friendship as high in conflict; both they and their partner tended to view the relationship as low in closeness and support. Adolescents who rated themselves high in relational aggression also portrayed their friendship as high in conflict and low in positive qualities, but their partner did not concur with this assessment. By contrast, adolescents who rated themselves high in prosocial behavior had friendships that both partners viewed as high in positive qualities. In a less sophisticated analysis of a demographically similar but younger sample, Rose, Swenson, and Carlson (2004) also found that overt aggression (rated by peers) was associated with lower friendship quality and higher rates of conflict with one's friend. Curiously, however, the more that adolescents were rated as high in relational aggression, the more positive their own ratings of friendship quality were. Most associations in this study, however, represented very small effects.

One other interesting study of antecedents of friendship quality examined Internet usage in a sample of European-American children and early adolescents (grades 3–9). Across time, they found that using instant messaging was positively associated with friendship quality (FQQ), whereas use of chat rooms or gaming and other entertainment features of the Internet was negatively associated with friendship quality. Internet usage predicted (later) friendship quality, but the reverse was not true. The implication is that young people establish interpersonal patterns in their Internet use



that affect the kinds of relationships that they can build with peers. As Internet usage grows among adolescents, the need for more careful research of its effects increases (see also chapter 9, this volume).

### *Correlates and Consequences of Friendship Quality*

Like Cillessen et al. (2005), Burk and Laursen (2005) employed the actor–partner interdependence model to obtain more accurate estimates of the effects of friendship quality on academic and psychological adjustment in an ethnically diverse, middle-class sample of early and middle adolescents. Comparing reports of respondents and their best same-sex friend (using the NRI and measures of interpersonal conflict), the investigators first affirmed that these reports were more similar than those of random pairs of subjects, indicating that the data reflected something more than simply a general portrait of the friendship relationship. They then discovered that perceptions of positive features of friendship were not as clearly correlated with outcome measures as reports of negative features, which were associated with poor psychological adjustment and lower grade point average. Especially among males, perceived conflict in the relationship also predicted poor outcomes.

Aikins, Bierman, and Parker (2005) followed a sample of middle-class European American youths across the middle school transition and found that pre-transition friendship quality (measured by the FQQ) predicted students' school adjustment, but only among those who retained their friendship across the transition. Nearly two-thirds of the sample named a new peer as their best friend in the posttransition interview, although 80% included their pretransition best friend in their list of close friends, posttransition.

### *Summary*

Studies of friendship quality represent an important advance over previous research on friendship. Investigators have now ceased relying upon one adolescent to report their

partner's as well as their own attitudes about or actions in the relationship. Moreover, they have derived new methodologies to coordinate data from both partners. These techniques provide better estimates of the compatibility of partners' perspectives, as well as the effects of relationship characteristics on individual adjustment.

Despite the expanding work on this topic, however, it is difficult to discern the common threads that unite much of the research on popularity among peers. It would be helpful to see friendship quality probed more systematically, with reference to a common set of theoretically derived issues that could help to integrate findings across different studies and procedures. A stronger conceptual framework also might help scholars to integrate additional important variables in their designs, such as the duration or intensity (frequency of interaction) of the relationship. More work is needed on whether friendship quality serves as a moderator of other relationship patterns and effects. For example, can high-quality relationships buffer the effects of sociometric popularity (or its absence) on psychological adjustment?

Another task is to extend research on friendship features to important subgroups of the adolescent population. Diamond and Lucas (2004), for example, provided a provocative comparison of friendships among sexual minority and heterosexual adolescents. Their analyses focused more on network size and friendship stability than friendship quality, but the findings suggested that younger sexual-minority teenagers and those who were not yet open with associates about their orientation allowed few peers into their circle of intimate relationships, compared to older, open sexual-minority peers or heterosexual teenagers. However, older, open sexual-minority respondents encountered greater loss of friends and fears about friendships than did other portions of the sample. Findings can be explained in terms of discrimination that sexual minority adolescents often encounter, but they leave open the question of the quality of relationships in

this specific group and how quality affects their psychological well-being.

### Antagonistic Relationships

Expanding research on friendships of sexual minority teens is just one way of diversifying the literature on adolescent peer relations. Researchers are beginning to recognize that, in addition to positive affiliations, many adolescents encounter more antagonistic relationships with peers. Growing attention to bullying and victimization should prompt scholars to look more carefully at bully–victim relationships, as well as other kinds of antagonistic alliances. Despite our call for more work on this topic (in the last edition of this *Handbook*), little has been forthcoming. In a review of the literature, Abecassis (2003) listed numerous forms of mutual antipathies, including former friends, bully–victim dyads, competitors, and peers who simply dislike each other; former romantic partners might be added to this list. She also pointed to the need to clarify criteria and measurement strategies for identifying different forms of these relationships, as well as more understanding on the part of internal review boards about the importance of asking young people about such relationships. Methodological issues related to this domain of research are challenging (Hartup, 2003), especially until researchers settle on definitions of these relationships and ways to reliably identify them.

At this point there are some glimpses of the kind of research to come on this topic. A problem in studying the effects of mutual antipathies is separating the effects of the relationship from the effects of simply being rejected (disliked) by a peer. Witkow, Bellmore, Nishina, Juvonen, and Graham (2005) examined levels of internalized distress among adolescents who had a mutual antipathy (identified via sociometric data). Without controlling for rates of peer rejection, it appeared as if having a mutual antagonist was associated with higher internalizing symptoms, but when analyses were limited to respondents who had some level of peer rejection (i.e., whether in

the context of a mutual antipathy or not), having the antagonistic relationship actually was correlated with some positive outcomes, such as peer nominations of being “cool.” This suggests that, despite the drawbacks of mutual antipathies, there may be some advantages for youth who suffer rejection from peers.

Veenstra et al. (2007) explored basic features of individuals involved in bully–victim dyads within a sample of Dutch preadolescents and early adolescents. Qualifying dyads were identified from sociometric procedures that asked respondents to name the peers whom they bully or by whom they were bullied. Not surprisingly, bullies picked on peers who were rejected by others and could be harassed with impunity. Bullies (but not victims) were more often male. But like other research on bullying, this investigation stopped short of scrutinizing the *relationship* forged by bully–victim pairs. Do bullies build sustained relationships with their targets? Do they focus on the same peer over a period of time, and if so, does that relationship evolve through phases, as do other dyadic peer relationships? How stable are interaction patterns in these relationships? Is there more of a tendency for the relationship to be interrupted by others (e.g., peers coming to the rescue of the victim or peers joining in the bully’s attacks)? What characteristics of the bully or victim serve to interrupt, redirect, or terminate the association?

Such questions are relevant to a variety of antagonistic relationships, including group level antagonistic interactions that may occur between rival friendship groups, gangs, or peer crowds. Investigators must overcome the inclination to approach these relationships strictly in terms of the characteristics or behaviors of individual participants. Effective interventions concerning bullying and other forms of antagonistic relationships require a better understanding of the relational features of these phenomena.

### Peer Group Relationships

As significant as friendships and other dyadic relationships are to adolescents, much of a

teenager's time with peers in most societies is spent interacting together in larger groups. Over the past five years, efforts to explore the features of interaction based groups—friendship cliques, gangs, and the like—have stalled, as we could find few recent reports devoted to this topic. In the past, some of the most insightful work on peer group structures and functioning has been derived from ethnographic investigations. These, too, have been in short supply over the last decade. A modest exception is a report on perceptions of gangs among 77 Latino adolescents from low-income immigrant families (Lopez, Wishard, Gallimore, & Rivera, 2006). Through individual interviews, the researchers queried adolescents about their perceptions of gangs in their neighborhood. Adolescents distinguished between gangs and “crews,” describing crews as more loosely organized, short-term, informal collectives, engaged in delinquent activities similar to that of gangs, but lacking the gang's initiation rituals or extremely violent activities. The higher the respondent's achievement level, the less likely he or she was to interact with gangs or crews or to be well acquainted with group members. Most of the sample perceived gangs in more negative terms than crews.

The difficulties of doing research on anti-social groups such as gangs are obvious, as young people fear recriminations for sharing information about groups that engage in deviant, sometimes violent, behavior. There are challenges in examining more prosocial peer groups as well, mostly in identifying group members, gaining access to the group, and winning group members' trust. Statistical programs capable of delineating groups often require high participation rates among members of a peer social system in order to define each person's position accurately. These are not new problems, however. Researchers simply need to pursue group-level peer phenomena in adolescence with renewed vigor, focusing especially on the long-neglected dynamics of friendship groups in middle adolescence.

One exemplar of the research needed is Kiuru, Aunola, Vuori, and Nurmi's (2007) assessment of the role of peer groups in adolescents' educational expectations. The researchers gathered data from 400 ninth graders in Finland, the year before Finnish students are tracked into different types of schools. Friendship nominations were used to identify groups within each participating school, differentiating between cliques, loose groups, and dyads. Each of these groups was characterized by the average level of members' educational expectations and academic achievement. Through multilevel modeling, done separately by gender, the authors discerned that the average level of adjustment in girls' groups predicted the group's level of short-term and long-term educational expectations. In boys' groups, by contrast, only the mean level of problem behavior of group members predicted group level educational expectations. Using the group as the unit of analysis is an important first step in understanding group dynamics that may influence individual members' behavior.

At the same time as research on interaction-based groups has slowed, there has been a modest resurgence of interest in the other level of adolescent peer groups: reputation-based crowds. Horn (2006) explored how adolescents' crowd affiliation affected decisions about allocating limited resources and justifications for their decision. Students self-identified as members of particular crowds, whose status had been ascertained in previous steps of the research, then responded to hypothetical scenarios about giving positions, privileges, or opportunities to someone associated with a high- or low-status crowd. Respondents claiming membership in high-status groups or no crowd allocated resources to high-status crowd members more often than low-status crowd members. High-status crowd members were more likely to appeal to social convention in justifying their decision, whereas low-status crowd members more often employed moral arguments. High-status crowd members also used stereotypes more often than

individuals who claimed membership in no crowd. The findings suggest that crowd membership shapes not only members' actions but also their attitudes toward allocation of resources.

Garner, Bootcheck, Lorr, and Rauch (2006) employed a variety of techniques to discern the structure of peer crowds in five different schools in a metropolitan region. Techniques included self-report surveys from students attending the school, participant observations conducted over a semester, content analysis of school yearbooks, or insights from parents-as-researchers. In each school, the researchers attempted to ascertain the social climate of the peer system, noting stark contrasts among the schools. One school featured what might be regarded as a conventional peer structure, labeled by these researchers as the "pyramid of prep dominance." Groups were organized into a clear status structure, with jocks and preps at the apex and groups toward the bottom of the hierarchy feeling marginalized. In another school, the climate was one of "oppositional takeover," in which crowds such as the "gangstas" or "stoners" challenged the authority of both high-status crowds and adult authorities. The climate in the third school was described as "fragmentation," in which no crowd dominated, nor did the crowds (or students) seem to focus much attention on the school itself; indeed, students did not care enough about school to be interested in peer status structures. The lack of systematic and consistent measurement techniques raises questions about the credibility of these data. Differences in the size, location, ethnic composition, and degree of ethnic and socioeconomic diversity of schools also complicate interpretations of findings. Nevertheless, this portrait of radical differences in the organization of peer crowd systems does underscore the need to attend to larger group structures in seeking to understand individual and dyadic level facets of adolescent peer culture. One wonders, for example, what sort of structure existed in the school that Horn (2006) examined, and

how a different structure might yield different patterns of resource allocation.

## PEER RELATIONSHIP PROCESSES

As evidence accumulates that adolescents with certain types of peer relationships (e.g., stable friendships, mutual antipathies, specific crowd affiliations) or relationships with specific features (e.g., high quality, conflict laden) are more prone to certain outcomes, the question looming large is precisely how peer relationships or relationship features contribute to those outcomes. There have been some sophisticated efforts to estimate the magnitude of peer effects. Kindermann (2007), for example, used social-cognitive mapping techniques to locate an almost complete 6th-grade cohort from one town into peer groups, then followed the students over time to tease out three possible sources of change in their levels of school engagement and achievement (group selection, group socialization, and similar treatment by members outside of their group). He was able to estimate with confidence how much of students' change in school behaviors was due to their peer group associates, but still not able to specify the mechanism of influence. What happens within peer relationships to facilitate changes in individuals? What are the processes by which certain outcomes are affected? What patterns of interaction facilitate adaptive or maladaptive behaviors? How do peers influence adolescents?

Kindermann acknowledges that these are very difficult questions to answer, requiring direct observation of social interactions, preferably in naturally occurring environments. Such observations are time consuming and logistically challenging, but researchers are making some headway.

### Exemplary Studies

A recent but now classic example of new approaches is Granic and Dishion's (2003) careful analysis of conversation patterns in friend dyads. The investigators noted how antisocial youths tended to guide conversations

in the way they react to partners' utterances. Through nonverbal cues (e.g., attention or inattention) and verbal responses (e.g., laughing or extending the topic with their own commentary), antisocially oriented pairs would selectively attend to deviant talk, thereby reinforcing a norm of antisocial behavior. Equally important was the fact that these adolescents were generally nonresponsive when friends introduced conversation about normative activities. Nondeviant friends responded very differently to similar utterances.

In more recent work, Dishion and colleagues have looked more carefully at conversation patterns among youth with different records of antisocial activity. They attend not only to the content of conversations and response patterns but also the level of organization in conversations—whether or not there is a flow of topics that is easy to follow. Comparing interaction patterns at ages 14, 16, and 18 in a sample of antisocial boys and their friends to conversations among a well-adjusted comparison group, Dishion, Nelson, and Winter (2004) noticed that the deviant group's conversations were more disorganized and unpredictable than the comparison group. However, the more organized antisocial adolescents' conversations were, the more likely they were to continue their deviant activity into adulthood. In other words, when conversations were sufficiently patterned to allow partners to reinforce antisocial utterances, the antisocial behavior was more likely to persist. A subsequent study indicated that these conversation dynamics applied to girls as well as boys (Piehler & Dishion, 2007).

Although the conversations of Dishion's respondents took place in a university laboratory, they seemed to approximate interchanges the young people were likely to have in actual daily encounters. Other investigators have attempted to approximate "real world" contexts in clever designs of more controlled laboratory experiments. For example, Gardner and Steinberg (2005) had samples of middle adolescents, late adolescents, and adults play

a computer game that involved driving a car across the screen. The further they drove, the more points they would earn, but also the more likely it was that they would encounter a stoplight and lose all of their points. Some participants played the game alone, whereas others played in the company of two peers, who were free to call out advice on what the player should do. Although individuals, on average, took more risks in the company of peers, the differences between behavior in the peer versus solo conditions were much more substantial (and significant) for late and, especially, middle adolescents than for adults. The age X condition effects were more pronounced for non-White than White respondents.

In an effort to determine how adolescents are influenced by peers during an effort to "break in" to an interaction-based group, Cohen and Prinstein (2006) involved a sample of American high school males of average social status in what they were led to believe was a chat room encounter with e-confederates who appeared to be either high or low in social status. The researchers used previous information collected on students in the school to construct groups of e-confederates whose identity (though not revealed) the subjects could infer. The e-confederates displayed aggressive and health-risk behaviors, and the experimenters tracked the degree to which subjects conformed to confederates' behavior. Subjects modeled this behavior when it emanated from ostensibly high-status peers, but actually rejected the same behavior when it came from what appeared to be low-status peers.

### Peer Influence Processes

All three of the aforementioned studies are clever attempts to create controlled environments that can capture the types of behaviors adolescents would manifest in peer interactions in natural settings. Like their predecessors from decades ago (Costanzo & Shaw, 1966; Sherif, 1961), these studies provide important insights into the processes that underlie peer group influences. Curiously, however, each

study probes a different mechanism of peer influence. Dishion's work focuses on how a friend's response to an adolescent's utterances *reinforces* certain attitudes or behaviors and not others. Gardner and Steinberg focus more on situations in which peers *encourage* or perhaps even *pressure* an adolescent to behave in certain ways, and Cohen and Prinstein's electronic chat room allows (ostensible) peers to *display behaviors* that adolescents can model (or choose to scrupulously avoid).

Still missing, then, is a comprehensive framework of peer influence processes that would serve to tie together findings across these various studies. One effort to provide such a framework stipulates five different modes of peer influence, along with a series of personal and situational factors that can explain how and when these modes are enacted and responded to by adolescents (Brown, Bakken, et al., 2008). In addition to three of the modes of influence already mentioned (reinforcement, peer pressure, and behavioral display), the investigators refer to two others: *structuring opportunities*, a frequently overlooked mode in which peers provide occasions or contexts for the pursuit of particular behaviors, and *antagonistic behavior*, such as occurs in many bullying interactions. Other strategies could be added to this list. For example, it may be prudent to differentiate peer pressure, which involves a direct, overt, and express attempt to prescribe certain attitudes or activities and proscribe others, from peer encouragement, a less forceful effort to support certain behaviors. Obstruction—direct but not necessarily intentional interference with a course of action—is another often neglected form of influence. An example of obstruction would be when a peer asks a girl out whom another teenager was planning to pursue, thereby obstructing the teenager's opportunity to pursue a romantic relationship with the girl.

Brown, Bakken, et al.'s (2008) model stipulates further, however, that peer influences can vary in timing, intensity, and consistency as well as mode. That is, in responding a

particular way, adolescents may be reacting to an immediate encounter with peer influence, such as the drivers in Gardner and Steinberg's experiment, or their recall of something that occurred in previous peer encounters, such as subjects' disinclination to model their behavior after low-status peers in Cohen and Prinstein's study (assuming that their decision to distance themselves from these peers stems from their recall of how they were derided at some point in the past). Brown and colleagues also argue that peer influence can vary in intensity and consistency. Not all of one's friends would necessarily laugh at one's accounting of deviant activities, or ignore talk about more normative events.

The model further suggests that responses to peer influence are conditioned by the target adolescent's openness to influence, the salience of the influencers, the nature of the relationship the target has with the influencer, and the target's ability and opportunity to be responsive to the influence. These details are reflected in some recent research relevant to peer influence processes. Ellis and Zarbatany (2007) found that short-term (3-month) effects of group membership on behaviors of Canadian early adolescents depended upon the group's position within the peer social system. Using a modified social cognitive mapping method to identify cliques, the investigators found that group level of deviance predicted individual change in deviance, but only among those who belonged to groups who were low in social preference (e.g., whose members were generally disliked by peers). Prosocial behaviors increased among respondents belonging to groups high in centrality (i.e., forming the core of the peer social system), but decreased among those in groups that were low in centrality. Adolescents' commitment to the peer group also seems to be an important factor. Verkooijen, et al. (2007) reported that strong identification with one of the risk-prone crowds in a sample of Danish 16- to 20-year-olds was associated with higher rates of substance use.

No single study can be expected to attend fully to Brown, Bakken, et al. (2008)'s model, or similar conceptualizations by others (e.g., Bukowski, Velasquez, & Brendgen, 2008). However, such conceptual frameworks can be used in planning studies so that results can be compared and integrated more easily across research programs.

### Other Process Issues

Although most aspects of peer interaction can be thought of in terms of peer influence, it is not necessarily wise to do so. For example, there is a small cadre of studies that conceives of certain peer alliances in terms of attachment relationships (e.g., Freeman & Brown, 2001; Furman & Simon, 2006; Marsh et al., 2006); this is most common with reference to romantic issues (see chapter 4, this volume). Studies of attachment to friends or lovers, or investigations of how working models or attachment state of mind affects the course of peer relationships, are important to pursue.

Research on friendship quality as a general feature of the relationship may mask more specific interaction processes that affect the stability of the relationship. Schneider, Woodburn, Soteras del Toro, and Udvari (2005) added a scale assessing competition within the friendship to a more general measure of friendship quality. In a cross-national sample of early adolescents, they found that hypercompetitiveness was linked to conflict and often led to termination of the relationship, whereas, in some social contexts, friendlier social competition actually enhanced the closeness of male friends. Observational studies of such specific friendship processes would provide a better sense of what happens when one friend "crosses the line" and engages in behavior that damages, rather than enhances, the relationship. Little is known about the specific relationship repair mechanisms that adolescents enact to allow relationships to continue after conflicts, although there has been some effort in self-report studies to explore common conflict resolution strategies

that adolescents employ (Thayer, Updegraff, & Delgado, 2008).

There has been some effort to explore interaction patterns within friendship cliques. Most of this work is ethnographic and focuses on early adolescent girls (e.g., Finders, 1997). Until investigators accumulate a broader corpus of evidence about interaction among a wider array of adolescent groups, it is difficult to determine the role that such interactions play in adolescents' peer relations or their psychological and social development.

### CONTEXTUAL INFLUENCES ON ADOLESCENT PEER RELATIONS

Over the past 2 decades, most North American investigators have ventured well beyond samples of middle class, European-American youths, which dominated studies of peer relations through most of the previous century. In seeking more diverse samples, scholars often encounter instances in which cultural factors outside of the social world of adolescence shape the nature of peer interactions. Dealing with cultural issues is a challenge, even when samples are sufficiently large to consider the moderating role of culture or ethnicity on the issues being studied. Likewise, when investigators transfer their sampling frame from school- to community-based populations, or when they observe adolescent peer interactions in a specific activity context, they confront context-specific factors that can alter the nature of peer social dynamics significantly. Recall, for example, the different peer group structures that seemed to be present in different schools that Garner et al. (2006) observed. Although adolescents often attempt to escape the attention of adults and engage in peer interactions away from major social contexts, the truth is that peer relationships always proceed within a broader social context. Many investigators have intentionally explored the effects of contextual forces on adolescent peer relationships. We highlight some of this work to illustrate the numerous ways in which context should be considered in peer relations research.

### Culture and Ethnicity

Although we have attended primarily to research on samples of North American youth in this review, there is a sizeable literature on adolescent peer relations in other nations, particularly in Europe. The organization of everyday life for teenagers can vary dramatically among nations as a function of differences in such things as school organization, school attendance patterns, access to part-time employment and organized leisure activities, ethnic or cultural diversity within the country, and, consequently, in normative expectations about relationship processes. Within this diversity it can be challenging to ascertain which factors are most relevant for peer interactions.

Some investigators have focused on the general distinction between individualistic and collectivistic cultures as a factor that may shape peer relationships. For example, French, Pidada, and Victor (2005) compared the quality of friendship (using the FQQ) among early adolescents in the U.S. (virtually all were European American) with the same age group in Indonesia, a more collectivist culture that emphasizes harmonious group relations more than dyadic alliances. The researchers expected U.S. youth to be more focused on and affected by friendships than their Indonesian peers, and to some extent this was borne out in findings. Students in the United States rated their friendships as comparatively more intimate and more influential in enhancing self-worth, whereas Indonesian youths reported high rates of conflict and use of friends for instrumental aid. A second study, involving college students in the two nations, indicated that Indonesian students engaged in more frequent and longer interactions with peers than U.S. college students, saw a wider variety of peer associates, and were more inclined to include others in interactions with close friends. In other words, friendships and peer relations appeared to be very important to youths in both nations, but the quality or character of relationships differed in accordance with distinctive norms of the two societies. It is noteworthy that French

and colleagues decided to standardize scores within each country because of cultural differences in response patterns (U.S. students showing greater inclination to select extreme values on a response scale). Attentiveness to this sort of measurement issue is important in cross-national research.

Of course, there often is cultural diversity within one nation that can play out in peer relations within a given community or school setting. Hamm, Brown, and Heck (2005) compared rates of cross-ethnic friendship nominations among youth from various ethnic backgrounds in multiethnic U.S. high schools. Controlling for school ethnic composition, which would affect the simple chances of selecting someone of another ethnicity as a friend, the investigators found that cross-ethnic friendships occurred at significantly lower rates than one would expect by chance (e.g., if adolescents selected friends randomly from available peers), especially for European-American teenagers. The specific variables correlated with propensity to nominate cross-ethnic peers as friends differed among major ethnic groups. A strong academic orientation was an important factor for African-American students, whereas high achievement level among Asian-American youths was associated with *lower* likelihood of cross-ethnic friendships. Length of time living in the United States was a significant factor for Latino youths.

Ethnicity played a different role in Bellmore, Witkow, Graham, & Juvonen's (2004) intriguing study of peer victimization in multiethnic middle schools. Appealing to principles of person-context fit theory, the investigators speculated that victimization might have stronger negative effects on adolescents in contexts in which the behavior deviated more from norms of the predominant group in the context. Consistent with this expectation, the effects of victimization on social anxiety and loneliness were stronger as a function of the number of ethnic peers in the classroom. When victims had few peers in the setting, they could attribute their victimization to racial or ethnic prejudice,



but if they were surrounded by ethnic peers, it was difficult to escape the conclusion that their plight was a function of some personal shortcoming. The implication of this study is that ethnicity or cultural background may affect social relationships not simply through the way that individuals internalize cultural norms but also in the extent to which such norms dominate a specific social context. These are important factors to consider in research on populations diverse in terms of any characteristic (race, culture, gender, socioeconomic status, sexual orientation) that could affect values and expectations about peer relations.

### Family Influences

One hallmark of adolescent peer relations is that, to a greater extent than in childhood, they occur out of range of immediate parental oversight. This does not mean, however, that parents and family have little impact on peer interactions. Investigators have probed numerous ways in which family impact can be felt in adolescents' social interactions with age-mates.

One factor is the way in which families shape the social orientations of their children. Sharabany, Eschel, and Hakim (2008) linked the friendship patterns of Arab youths in Israel to their perceptions of parenting style. They found that level of intimacy with same-sex friends correlated positively with maternal authoritativeness and also with fathers' parenting styles, but differently for each gender. Boys' level of intimacy with friends correlated positively with paternal authoritativeness and negatively with fathers' permissiveness, whereas friendship intimacy among girls correlated positively with paternal permissiveness and authoritativeness. These patterns probably reflect gender role expectations for youth in Arab society, as well as the distinctive child-rearing roles of mothers and fathers.

Families also may, in effect, launch a child on a trajectory toward a certain pattern of behavior, which then is either continued or deflected through relationships with peers. Past research indicates that problematic parenting or troubled

parent-child relations in childhood can lead children to associate with deviant peers, which in turn promotes their own engagement in anti-social activities. In a recent illustration of this principle, Beyers and Seiffge-Krenke (2007) found that youths from three different family types, based on parenting practices and the quality of parent-child relationships, had distinctive rates of internalizing and externalizing behavior. However, these associations were significantly attenuated when the quality of peer relations was introduced as a mediating factor. The best outcomes were observed among females from individuated families, who seemed to launch their daughters on a pathway toward high psychosocial adjustment, which was reinforced through high-quality relationships with friends and romantic partners.

Researchers have also observed interactions between family and peer factors. In some cases, the quality of peer relationships can attenuate or exacerbate the ill effects of family characteristics on adolescent outcomes (Lansford, Criss, Pettit, Dodge, Bates, 2003). In other cases, family functioning serves to moderate associations between peer experiences and adolescent adjustment. Both pathways emphasize the interconnectedness that continues to exist between family and peer settings over the course of adolescence. It is likely that the degree of interconnectedness depends to some extent on cultural factors, such as the cultural norms for peer relations that were observed in comparisons of U.S. and Indonesian society by French and colleagues. To date, however, the literature is not systematic and extensive enough to consider these higher order contingencies.

### New Social Contexts for Peer Interaction: Internet Studies

The common assumption is that, for the most part, adolescent peer relations are carried out through face-to-face interactions in various physical contexts in the community—especially the school, extracurricular activity contexts, venues for leisure pursuits, and,

to a diminishing extent, adolescents' homes. Although this is still likely to be true, another context is emerging as a major locus of peer interaction, namely, the world of electronic media: text messaging, Internet web pages, and other portions of cyberspace. Researchers are just beginning to explore these new media as social contexts. Much of the work to date has been devoted to simply cataloging the extent and type of interactions that adolescents pursue on electronic media.

Electronic media have the capacity to alter the nature of peer interactions dramatically. Adolescents are no longer confined to developing relationships with age-mates whom they physically encounter in three-dimensional space. Through web sites and chat rooms they can link up with other adolescents thousands of miles away. They can carry on extensive conversations with strangers about whom they have only the most rudimentary information (whatever appears in a person's comments in a chat room). They can adopt fictitious personae and pursue relationships with other individuals on the basis of a completely false identity. Alternatively, they can employ electronic media to extend interactions with peers whom they regularly meet face to face. They can even use electronic media to replace face-to-face interactions, as when two teenagers "text" each other from across the room, or in the midst of a school class.

Adults often worry that the flexibility of electronic media to create new social environments will draw adolescents away from "real-world" interactions that are an essential component of "normal" life in a culture. So, one important question to be pursued is whether adolescents use media to replace or simply augment more normative peer interactions. However, for adolescents who are anxious and insecure in their face-to-face interactions with peers, the Internet might offer an alternative way to pursue relationships in an environment that the young person can control more easily. Yet again, the potential anonymity of the Internet could make it an ideal venue

for aggressive behaviors; young people could engage in relational aggression toward specific peers with little worry that they will be caught and somehow punished for their behavior.

Valkenberg and Peter (2007) attempted to address some of these concerns in a survey of how a sample of Dutch youths aged 10–16 used the Internet. They found an association between Internet use and closeness to peers. For respondents who used the Internet primarily to communicate with existing friends, online communication increased their closeness to friends. Socially anxious youth were less likely to use the Internet, but when they did they emphasized the opportunities it afforded to broaden their communication with others. This suggested that some young people find the Internet to be a viable alternative to face-to-face interactions, especially if they become anxious in pursuing such interactions.

Blais, Craig, Pepler, and Connolly (2008) found similar results in a short-term longitudinal study of Canadian high school students. The authors noted improvements over a one-year period in the quality of close friendships and romantic relationships among young people who used the Internet to communicate with existing associates (e.g., instant messaging), but declines among those who frequented chat rooms or gaming sites, where they interacted primarily with strangers. These findings emphasize that certain Internet modalities facilitate existing, face-to-face relationships, whereas other modalities interfere with them. These other modalities may be important in compensating for deficiencies adolescents' existing social networks, although Blais, et al.'s findings are not consistent with this speculation.

Concerns that the Internet may exacerbate rates of bullying or victimization have been addressed by several scholars. Juvonen and Gross (2008) conducted an anonymous survey with a sample of convenience (whoever wished to respond to the survey, which was posted online) about their experiences of being bullied online. Not surprisingly, most of the respondents had experienced bullying, both at

school at through electronic media. Two-thirds of those who reported electronic bullying said they knew the perpetrator. Very few indicated that they reported their peers' aggressive behavior to adults. Both in-school and online victimization contributed independently to social anxiety levels.

These formative studies underscore the need for more systematic research on how electronic media are becoming an important context for peer interactions. They suggest that no single pattern of media use dominates, so the task before researchers is to sketch the various motivations and patterns of peer-related media usage that occurs, then carefully explore each pattern's effect on the quality and character of peer relationships, as well as their effects on social and psychological adjustment. Existing research on face-to-face interactions will serve as a blueprint for much of this work, but researchers must be open to the possibility that peer relationships and interactions are transformed, rather than simply extended, by electronic media.

## FINAL COMMENTS

At this stage in its history, research on adolescent peer relations has grown remarkably diverse. No longer can the field be easily captured by a handful of key issues or dominant theories and research paradigms. This is both a blessing and a curse. Researchers are documenting the variety of ways in which peer relations help to mold the character and course of adolescent development. At the same time, without the guiding lights of previous decades it is very difficult to connect insights gleaned from one study to the next. There also seems to be a real danger that as the focus shifts to individual trees—very specific aspects of adolescents' encounters with peers—the research community will miss the forest by losing sight of peer relations in general and the way that these relations mesh with other aspects of young people's lives.

It is especially important that investigators maintain some awareness that most adolescents

venture through several peer contexts within any given day, sometimes encountering them simultaneously. Encounters with aggressive peers occur immediately preceding or following, or perhaps even in the midst of, interactions with friends, and during these encounters adolescents must respond not only to the immediate situation but maintain an awareness of how it affects their perceived and sociometric popularity in the broader peer group. Most adolescents belong to more than one clique or friendship group; sometimes their various groups will intersect different crowds (Kindermann, 2007), forcing them to switch normative frames of reference as they shift from one set of interaction partners to the next. The advent of electronic media makes it difficult for adolescents to escape from peers, even when the peers are no longer physically present. As researchers carefully dissect the peer context to pursue studies of various specific aspects, they should not ignore opportunities to occasionally integrate information across research programs and issues, and to keep the big picture in mind.

This challenge is more easily accomplished when researchers work under the guidance of an integrative conceptual framework and the rigors of specific theories. Much of the current work in the field strikes us as relatively atheoretical, or based on conceptual frameworks too specific to a given research question to allow integration with a broader corpus of work. In preparing this review we have been reminded of Hartup's (2005) basic dictum that peer interactions are largely a matter of (1) individuals (2) in relationships (3) in social contexts. Although simple, this formula serves as a litmus test for researchers. If their efforts cannot easily be placed within this framework, and if connections cannot be easily made to other research at other levels of analysis, they need to refine the issue they are addressing or the way they are addressing it.

In the previous edition of this *Handbook*, we ended the chapter on peer relations by challenging researchers to unravel the complexities

of this domain. Over the past 5 years that has been done, with a vengeance, and the task must continue. The new challenge is to pursue these complexities in a way that allows for a more coordinated, integrative understanding of how adolescents encounter peers and weave these encounters into the fabric of their daily lives.

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