Understanding Peer Influence in Children and Adolescents

Edited by
MITCHELL J. PRINSTEIN
KENNETH A. DODGE

© 2008

THE GUILFORD PRESS
NEW YORK   LONDON

A Comprehensive Conceptualization of the Peer Influence Process in Adolescence

B. Bradford Brown, Jeremy P. Bakken,
Suzanne W. Ameringer, and Shelly D. Mahon

One of the most prominent concerns that American adults express about adolescence as a life stage is the power of peer influence. Journalists who have immersed themselves in the adolescent social world and practitioners working with troubled youth point to the preeminence of peer relations and the challenges they pose for mental health of male and female teenagers (Gurian, 1998; Hersch, 1998; Perlstein, 2003; Pipher, 1994). Researchers report that one of the strongest predictors of adolescent delinquency is the delinquency level of close friends (Elliott, Huizinga, & Ageton, 1985). Peers also seem to contribute to health-compromising behaviors such as drug use or risky sexual activity (Hawkins, Catalano, & Miller, 1992; Kandel, 1985; Rodgers & Rowe, 1993). Such findings have sparked considerable interest in prevention and intervention programs that can thwart the ability of peers to lead children and adolescents into problem behavior. To ward off the undesirable influences of peers, it seems imperative to know how these influences operate. Surprisingly few studies, however, have focused on the specific processes by which peers affect individual behavior in adolescence.

The failure to scrutinize the peer influence process has not deterred researchers or practitioners from making assumptions or assertions about how it works. *Peer pressure* is the most common term used to de-

scribe the mechanism of influence. Although operationalized in a variety of ways, the term carries a connotation of youth being cajoled or coerced into some behavior by peers. Careful examination of peer dynamics quickly reveals that such pressure is not the primary mode of peer influence (Michell & West, 1996; Urberg, Shyu, & Liang, 1990). More recently, *peer contagion* has emerged as a popular term among researchers (Dishion & Dodge, 2005). Meant to capture the more indirect form that peer influence often takes, it still carries a negative connotation, as if the influence were some sort of disease that one catches by being in close proximity to peers. Both terms reflect the inclination to regard peer influence as an undesirable and unhealthy feature of adolescent development and social interaction. Indeed, the vast majority of studies that address peer influence focus on delinquent, deviant, or health-compromising behavior.

More careful examination of studies related to peer influence reveals three important things. First, peer influence is multidirectional; it is capable of encouraging healthy as well as harmful behavior. Second, it is multidimensional; peer influence operates in a variety of ways that are not equally well documented. Third, peer influence is a complex process that, at present, is not well understood (Harrup, 2005)—partly because there has been more emphasis on the outcomes than the process of influence, but also because there has been too little effort to connect the vast and divergent literature. In this chapter we briefly review past efforts to assess adolescent peer influences, highlighting major shortcomings of previous research. Then, based on a set of principles that we believe underlies the peer influence process in adolescence, we present a new model of this process, illustrating its major components through references to current studies in the area. All model components have been mentioned by other investigators over the years, but no one has gathered them into a comprehensive portrait of the peer influence process. In the model we acknowledge the potential for peers to encourage positive as well as problematic behavior. We end by suggesting how the model could guide future research.

EARLY STUDIES OF PEER INFLUENCE

Several theories emerged in the middle of the 20th century that assigned peers a central and generally positive role in adolescent development. Theorists emphasized how peers helped a young person to co-construct a social cognitive understanding of the social world (Piaget, 1950; Youniss, 1980), explore identity (Erikson, 1968), or navigate a succession of relationships to prepare for adult heterosexual ties (Sullivan,

1953). The positive contributions of peers envisioned by these theorists are a surprising contrast to much of the contemporaneous empirical research on peer influence, which focused on the capacity of young people to be led astray by peers.

Empirical Approaches and Objectives

Over the past 50 years, scholars have employed a variety of research strategies to chart the magnitude of effects that peers have on young people or the conditions under which such effects are apparent. Much of this work can be collapsed into four basic approaches, each of which features different objectives and perspectives on peer influence or individual conformity.

Laboratory Studies of Conformity

In a series of experimental laboratory studies following a format laid out by Solomon Asch (1951), a number of investigators explored the tendency for various groups of respondents to follow the misjudgments of peers. The most classic of these studies involved judging the length of lines, but investigators used numerous stimuli varying in the degree to which the right answer was unambiguous. At issue was whether or not participants who had shown a capacity to make accurate judgments would nevertheless select an inaccurate response if it was consistently endorsed by peers (who had been recruited as confederates into the experiment). Situational and individual factors affected respondents' conformity. Individuals were more likely to follow the opinions of friends than acquaintances or unknown peers and were most easily persuaded when the correct answer was ambiguous and/or when it was clear that peers would know their responses (Deutsch & Gerard, 1955). Conformity also tended to be greater among first-born than later-born children (Becker, Lerner, & Carroll, 1966) and individuals who had weak self-images (Costanzo, 1970). Age differences were inconsistent across studies (see Costanzo & Shaw, 1966; Hoving, Hamm, & Galvin, 1969; Iscoe, Williams, & Harvey, 1963), but there appeared to be either a decrease in conformity from childhood through adolescence (especially when the stimuli were unambiguous) or a peak in conformity during early to midadolescence (especially when stimuli were ambiguous).

Cross-Pressure Studies

Complementing these laboratory studies of conformity behavior were investigations of conformity dispositions, based on individuals' re-

sponses to hypothetical dilemmas. Some of these involved situations in which the protagonist received conflicting advice from parents and peers; respondents were asked what advice the protagonist would or should follow (Brittain, 1963; Larson, 1974; Sebald & White, 1980). In some cases (e.g., Brittain, 1963) the investigators used clever devices to mask the focus on parent-peer cross-pressures, but all of these studies still reflected an assumption that parents and peers routinely offer young people opposing advice. To many people's surprise, adolescents were more inclined to make decisions about what the protagonist should do based on the content of alternative courses of action rather than on which reference group (parents or peers) had recommended that alternative. However, youth did appear to be more receptive to peers' opinions in dilemmas involving present-oriented, social issues; they paid more attention to parents in dilemmas with serious or long-range consequences. In other words, the strength of conformity dispositions, as well as the source of influence to which adolescents attended, varied by situation.

Assessments of Susceptibility to Peer Influence

Another set of studies dealing with conformity dispositions posed situations in which friends or other peers encouraged an activity in which respondents, hypothetically, were reluctant to engage. Respondents rated the likelihood that they would join peers in the activity; this was interpreted as an indicator of an individual's susceptibility to peer influence. The most widely cited of these studies (Berndt, 1979) contained separate scales for prosocial, antisocial, and "neutral" events (focusing on social activities with friends); the investigator also controlled for how wrong the respondent thought it would be to engage in each activity included in the antisocial scale.

A fairly consistent pattern of age and sex differences emerged across these studies, with investigators reporting an inverted U-shaped age trend in susceptibility, peaking in early adolescence and more pronounced for antisocial than neutral or prosocial peer pressures (Berndt, 1979; Bixenstine, DeCorte, & Bixenstine, 1976; Brown, Clasen, & Eicher, 1986). Susceptibility to antisocial peer influences usually was significantly higher among boys than girls. Some scholars examined antecedents of susceptibility, such as poor parental monitoring (Steinberg & Silverberg, 1986); others focused on its consequences, such as higher rates of antisocial behavior (Brown et al., 1986). These studies warned of the dangers of antisocial peer influences even though, in most cases, they failed to measure the type or magnitude of influence (but see Allen, Porter, & McFarland, 2006; Brown et al., 1986).

Inferred Influence Studies

The final set of studies considered the effects of peer influence in "real-life" situations. The most common approach to demonstrating influence has been to chart the strength of association between a measure of peer behavior and an indicator of the target individual's behavior. Simplistic examples of these reports feature correlations between a self-reported outcome and self's assessment of peers on the outcome, each measured at a single time point (e.g., Deković, Wissink, & Meijer, 2004; Pruitt, Kingery, & Mirzaee, 1991; see Bauman & Ennett, 1996, for a review of problems with such studies). More sophisticated studies involve multiple time points and independent measures of self- and peer behavior, so that investigators can calculate the degree to which an adolescent's "follow-up" score on a given behavior is predicted by the baseline peer score on the same or a related measure, controlling for the adolescent's baseline score on the behavior and any other possible confounding variables (e.g., Aseltine, 1995; Ennet & Bauman, 1994). Researchers inferred that the degree of association between self's and peer behavior was the result of peer influence. There is a reasonable basis for this inference in the more sophisticated studies, but they still provide no information about the means by which peers exerted influence.

Shortcomings

None of these sets of studies focused directly on the process of peer influences. In fact, the first three were oriented toward quite different issues—either the features of the influence situation or characteristics of the individual being influenced. Yet each set harbors implicit assumptions about the influence process that researchers have yet to adequately explore. In their laboratory experiments, Asch and his followers assumed that influence was exerted indirectly, by setting a consistent example for others to follow. Cross-pressure studies presumed a more direct mode of influence, namely, giving advice about how to respond in a specific situation. Investigations based on hypothetical scenarios tended to represent peer influence as even more overt pressure, directing an individual how to behave even if the person expressed an inclination against the behavior. Inferred influence studies concentrated more directly on influence per se, but without specifying the nature of peers' behavior. The fact that peers exerted influence was important to these investigators, but the ways in which influence was expressed was not important. Added to other distinctions among the studies, these fundamental differences in perspectives on processes of peer influence make it difficult to compare findings across the four sets of investigations.

The value of findings emanating from these studies is tempered by several other shortcomings. In most cases, investigators gathered data at only a single time point. This is particularly problematic for inferred influence studies because investigators cannot differentiate selection from socialization effects (Jaccard, Blanton, & Dodge, 2005; Kandel, 1978). They cannot determine how much of the similarity observed between an individual and his or her peers stems from the person seeking out like-minded peers, rather than changing to conform more closely to peers. Even in the laboratory studies, a single evaluation raises concerns about the reliability of conformity observations. Would the target display the same degree of conformity with a different set of peers, or on a different task?

Many of the inferred influence studies relied on respondents to report not only their own behavior but also that of their friends or peers. Such data yield overestimates of peer influence because young people are inclined to exaggerate the degree of similarity between self and others (Kandel, 1985; Urberg et al., 1990).

Within each of the different types of investigation there has been virtually no effort to vary the form in which peer influence is manifest. In susceptibility studies, for example, hypothetical dilemmas could vary in whether peers simply displayed a certain behavior, advised the protagonist to follow suit, or pressured the protagonist more directly. Laboratory-based conformity studies could vary the stimulus situation, such that confederates occasionally ridiculed a target for failing to endorse their answer, rather than consistently offering no response to the target's action. Systematic variation of the mode of influence would not only obviate the confound between type of investigation and the way that influence is portrayed but also allow investigators to assess the degree to which individuals' response to peer influence depends on the way it is manifested.

We suspect that many authors of inferred influence studies would argue that the mode of influence is a trivial issue. Ethnographic accounts of adolescent peer dynamics undermine this argument. Several investigators describe how peers shift strategies to alter an individual's behavior if early efforts at influence are unsuccessful (Adler & Adler, 1998; Dunphy, 1963; MacLeod, 1995). A careful reading of these accounts also suggests that adolescents employ different influence strategies—or apply a strategy with different intensity—when attempting to influence friends as opposed to acquaintances, disliked peers, or individuals attempting to enter their group (Adler & Adler, 1998; Eckert, 1989; Fine, 1987; Merten, 1996). These observations suggest that different modes of influence are not necessarily equivalent in their power or purpose. Some quantitative studies do examine the comparative effects of multiple modes of influ-

ence (e.g., Vincent & McCabe, 2000; Wood, Read, & Mitchell, 2004), but there is little systematic work on the strategies underlying adolescents' use of various modes.

BASIC PRINCIPLES OF PEER INFLUENCE

To achieve a clear understanding of the peer influence process, researchers will need to address these and other shortcomings of existing studies. In doing so, they should be more mindful of some basic principles of peer influence that, over the years, researchers have discovered or debated in their work. We list 12 basic principles that can guide the formulation of a more comprehensive conceptual model for future studies.

1. *Peer influence is purposive behavior.* Researchers have focused nearly all of their attention on features of the influence situation, characteristics of the target of influence, or consequences of influence for the target. Some have considered who is engaging in influence (e.g., whether it is a close friend or a group of acquaintances), but rarely have they asked why someone would do so. Motivations for generating or responding to influence constitute a largely neglected component of the peer influence process, but they may be central to understanding adolescents' behavior in these situations. From our review of the literature we perceive a variety of motives for influencing others. The most obvious involves "normative regulation" (see, especially, Deutsch & Gerard, 1955; Eder, 1995): defining, clarifying, and maintaining or enforcing the norms of a dyadic relationship or a group. Other motives include "relationship development," or an effort to enhance important features of a close relationship (Lightfoot, 1997), and "self-enhancement," trying to advance one's own status or position among peers. Adler and Adler (1998) and Wiseman (2002) describe how group leaders sometimes try to manipulate the attitudes or behavior of other group members to ward off threats to their dominant position in the group. "Other enhancement," or acting in the best interest of the person being influenced, constitutes another, less frequently acknowledged motive for influencing peers. Close friends may pressure an adolescent into trying out for an activity if they think the person has a gift for the activity, or they may encourage the adolescent to spend more time with someone whom they think would make a good romantic match.

Just as there are motives to initiate influence, there are motivations for acceding to or rejecting the effort at influence. We do not have the space to consider these in detail, but it is important to acknowledge that motivations of the initiator and target of influence do not necessarily

correspond to each other. Someone may respond to group efforts at normative regulation to enhance her or his position in the group, rather than out of a concern for the maintenance of group norms. The mix and match of motivations may be a key factor in how the influence process unfolds over time.

2. *There are multiple modes of peer influence.* Although it is typically regarded as a singular entity, peer influence actually encompasses a constellation of distinct behaviors. The most widely recognized is "peer pressure," which involves direct attempts to effect certain attitudes or behaviors in another person or group. Although usually cast in a negative light and understood as an effort to impose undesired attitudes or behavior on someone, it can also refer to more constructive efforts such as encouragement or cheering someone on to healthy, self-enhancing activities.

Probably a more common form of peer influence is "behavioral display." It is a basic component of social learning theory, in which someone displays the attitude or behavior that is desired of other people, and these others model the behavior as a manifestation of peer influence (Bandura & Walters, 1963). Dunphy (1963) described how other-sex interactions of clique leaders served as an example for other clique members to follow, allowing cliques to evolve from single-sex to mixed-sex groups. In a study of Canadian immigrant youth, Zine (2001) found that older adolescents served as role models for younger peers, demonstrating how they could retain their Muslim cultural identity in the face of peer pressure to conform to dominant cultural norms.

"Antagonistic behaviors" constitute a third mode of influence. They range from playful teasing, which is especially useful in normative regulation (Eder, 1991), to ridicule (Lashbrook, 2000) to more aggressive behavior such as bullying, threatening, or relational aggression (Cillessen & Mayeux, 2004; Merten, 1996). In its more strident forms, antagonistic behavior seems to mimic peer pressure, but the belittlement or intimidation that is characteristic of this behavior is not accompanied by demands for or encouragement of specific attitudes or actions, as is the case for peer pressure.

Two less frequently acknowledged modes of peer influence are "behavioral reinforcement" and "structuring opportunities." The latter involves the creation of a situation that facilitates certain behavior without necessarily imposing or encouraging it. When a teenager invites peers to an unchaperoned party, for example, the young person may not consciously intend to encourage the peers to experiment with alcohol or sexual activity, but the party guests may find such activities easier to engage in than had they not been included on the party list. *Behavioral reinforcement* refers to efforts to encourage or reward activities in which a target is already engaging. Granic and Dishion (2003) found that con-

versations between friends about deviant activities were longer if one friend gave verbal or nonverbal cues of interest in and agreement with the other's statements. Moreover, duration of such conversations predicted participants' level of deviant activity 3 years later.

One challenging feature of peer influence is that the same peer behavior may constitute a different mode of influence for different individuals. Someone who is the target of bullying by a group of classmates will experience the episode as antagonistic behavior, whereas for an uninvolved bystander the bullying will serve as an instance of behavioral display. For some bystanders, witnessing how bullying is accomplished will encourage them to later model the behavior when they have an opportunity to antagonize a classmate. Other witnesses may focus on how bullying affects the victim and later take action to guard against becoming a victim. Merten (1996) describes these dynamics among a sample of middle school youth. After one boy antagonizes a member of the "mel" crowd, his cliquemates who observe the event later take their own turns teasing the mel, whereas other mels endeavor to avoid the clique and even avoid contact with their fellow mel who has been victimized, to avert becoming a target of the group's bullying.

Although researchers are aware of these varying forms of peer influence there has been little effort to catalog the circumstances under which each is used or to compare their effects (see Graham, Marks, & Hansen, 1991, for an exception). There may even be a hierarchy of strategies in which some modes are considered more forceful or intrusive than others (Mitchell & West, 1996). It is noteworthy that none of the modes seems inherently and exclusively oriented toward promoting undesirable, antisocial or desirable, socially acceptable behavior.

3. *Peer influence can be direct or diffuse, intentional or unintentional.* Given that peer influence is purposive behavior, one would expect that it would be consciously directed toward a specific target. Although this is often the case, it is not necessarily always the case. Eckert (1989) described the social system in one high school that featured two dominant groups embroiled in an oppositional relationship: norms that one group embraced, the other group eschewed. When a leader of the "jock" crowd in this school sported a new clothing style, many of her fellow jocks would rush out to buy similar clothing. At the same time, Eckert observed, this new look would immediately be dismissed and derided by the opposing group, the "burnouts." Whereas the leader probably expected to have a direct influence on her own clique of jocks, she may not have anticipated that her influence would extend more diffusely to burnouts, in general. Much of peer influence can be overlooked if researchers concentrate solely on direct and intentional efforts to affect an individual's attitudes or behavior.

4. *Multiple peer influences operate simultaneously or contemporaneously.* This is the first of two principles that make peer influence especially challenging to investigate. Research studies, understandably, portray peer influence as a singular, monolithic force. In experiments using some form of the Asch technique, all confederates endorse the same incorrect answer on experimental trials. All peers referred to in hypothetical dilemmas provide the same advice or urge participation in the same activity. Such consistency is vital to the integrity of experimental or statistical manipulations inherent in these studies. In real life, however, peers are unlikely to speak with such unanimity. Robin and Johnson (1996) found that, when given the opportunity, adolescents acknowledged pressure from peers toward and against use of various drugs. Pressure in each direction, alone and in combination, were significantly associated with use patterns, but to different degrees for various substances.

Contradictory peer influences are especially common among immigrant youth, whose home cultural norms differ sharply from those of the dominant group in their new society. Zine (2001), for example, described how Muslim immigrants in Canada confronted contradictory pressures from Muslim peers and the broader network of agemates in their schools. Of course, there are also cases in which adolescents experience multiple instances of peer influence, all of which offer the same message about how they should act. In fact, consistency of peer influence across multiple relationships is an important predictor of problem behavior such as tobacco or other drug use (Jaccard et al., 2005).

The challenge for adolescents is not simply to respond to each of these influences as it is encountered but to anticipate them and modulate them into a coordinated response. Likewise, the challenge for researchers is to derive a method for measuring the consistency of peer influence, then understanding how adolescents sort through multiple and often-contradictory influences in determining an appropriate course of action.

5. *Peer influence is a reciprocal, transactional process.* For the sake of research design and statistical analyses, investigators tend to establish one person as the target of peer influence and others as the source of influence. Thus, they portray peer influence as a linear process. Upon closer examination, however, one realizes that the response to peer influence, more often than not, is itself a peer influence. If one teenager says to a friend, "Hey, I bet you don't have the guts to take this corner at 65 MPH," and the friend retorts, "Hey, I bet you don't have the intelligence to actually *get* a drivers license!," who is actually influencing whom? When a group presses one of its members to conform to a group norm and the member refuses, that refusal can be seen as a member's effort to get the rest of the group to drop or change the norm. Thus, a proper analysis of peer influence should consider not only the effect of an initia-

tor of influence on a target but also the effect of the target's response on the initiator.

Currently, there are few effective methodological models for engaging in transactional analyses. Some investigators have used dynamic systems theory to chart the behavior of two or more individuals over time, examining whether or not their joint behavior is predictive of individual outcomes (e.g., Granic & Dishion, 2003). Typically, however, this approach is not well suited to differentiating relative levels of influence among individuals who are part of the group that serves as a unit of analysis. Sequential analyses of social interchanges would permit investigators to trace the "give and take" of influence between two individuals or between an adolescent and a group of peers. The foreboding challenges of these approaches have driven most researchers to rely on more linear models, despite their shortcomings in representing the reciprocal nature of peer influence.

6. *Peer influence is contingent on openness to influence.* A basic principle of social learning theory is that individuals cannot model an exemplar's behavior if they fail to attend to it (Bandura & Walters, 1963). Applied to peer influence, this serves as an important reminder that peer attitudes or behaviors are not automatically sources of influence on individuals (as is often presumed in inferred influence studies). There must be some evidence that an individual actually perceives the peer behavior and recognizes it as a source of influence. Sarcastic remarks from cliquemates won't affect an adolescent unless he or she actually hears them and recognizes the sarcastic tone and its underlying intent. Likewise, clique members in Dunphy's (1963) study could not benefit from the lessons in cross-sex interaction that their leaders tried to provide for them if the members failed to watch and listen to leaders when they interacted with the other sex.

Beyond basic attentional processes, openness to influence also concerns dispositions. The dispositional aspect of openness to influence constitutes the central construct in many research studies, typically referred to either as "conformity disposition" or "susceptibility" to peer pressure (Berndt, 1979; Brown et al., 1986; Sim & Koh, 2003; Steinberg & Silverberg, 1986). As already mentioned, most of these studies have focused either on factors associated with the level of susceptibility an individual displays or with the consequences of susceptibility for subsequent behavior. For example, several recent peer studies have identified youth with an unusually high openness to peer influence, often referred to as "extreme peer orientation" (Fuligni, Eccles, Barber, & Clements, 2001; Goldstein, Davis-Kean, & Eccles, 2005; Kiesner, Cadinu, Poulin, & Bucci, 2002). By definition, these youth are so focused on peers that they are willing to eschew adult-approved norms or endanger the quality of

their relationships with adults to retain their standing among peers. Investigators have found that these youth are more likely to engage in health-compromising behaviors, presumably because of peer influence. However, it is not clear that these youth confront more influence from peers, accede to such influence more readily, or simply lack the balance between peer and adult influences that might lead to a less problematic pattern of behavior. More careful research is required to understand how openness to influence moderates associations between influence exposure and adolescent behavior.

7. *The impact of peer influence depends on the salience of those exerting influence.* Over the course of an average day, most adolescents encounter a variety of peers in a number of different settings. Each of these encounters has the potential of creating peer influence, but many of the interactions have no discernible impact on the individual, even if the person is cognizant of the peer behaviors and, by disposition, generally receptive to influence. One factor determining whether peer encounters will be transformed into influence episodes is the salience of peers to the target individual. In essence, the issue is whether or not particular peers are worthy of one's attention. One would expect adolescents to accede to peer influence emanating from admired associates whom they wish to emulate more often than from peers who don't really matter to them.

Investigators commonly assume that adolescents are more receptive to influence from close friends than from other associates. As a result, cross-pressure studies, research based on hypothetical dilemmas, and inferred influence investigations typically target close friends as the influencing agent. This focus on friends could lead to underestimates of influence if other highly salient groups are overlooked. For example, researchers give comparatively little attention to the effects of peers who are highly admired but not (yet) close friends, as well as peers who are actively disliked and avoided, despite some intriguing evidence of the salience of these groups. In her ethnographic study of youth in one high school, Eckert (1989) discovered that jocks and burnouts disliked and disparaged each other yet had a strong impact on one another's values and activities by virtue of their conscientious effort to avoid any appearance of affinity for the outgroup. In a recent experimental study, Cohen and Prinstein (2006) demonstrated that adolescents of moderate peer social status were likely to accede to the opinions of peers whom they thought were high in social status and distance themselves from peers who appeared to be low in status, even when none of these peers was a close friend.

8. *Relationship dynamics also affect the capacity of particular peers to influence an adolescent.* In addition to the salience of peer asso-

ciates, investigators of peer influence need to consider how the nature of the relationship that an adolescent has with peers will affect patterns of influence. Two issues that are particularly pertinent are the duration of the relationship and the power dynamics that characterize it. Scholars have debated whether adolescents are most receptive to influence from a significant other just before the relationship blossoms (when one is preoccupied with gaining the attention, affection, or affiliation of another), in the early stages of their affiliation (when companions are negotiating the norms of their relationship or when a person is striving to prove worthy of membership in a group), or after they have been associated for some time (when a bond of mutual trust and support has been formed). Intuitively, one might expect that long-standing relationship featuring close ties would offer the strongest source of influence, but this has not always been the case in studies that consider stage of relationship. Burton, Ray, and Mehta (2003) reported that best friends were less likely than acquaintances to inspire cheating in school. Nearly all of the adolescents whom Lightfoot (1997) interviewed acknowledged that a teenager would be persuaded more easily to smoke by acquaintances than friends. Existing evidence is scant and equivocal, primarily because researchers rarely consider relationship stage or duration as an important variable in their analyses.

Another factor to consider is the power differential between the individual or group exerting influence and the person receiving it. Although, by definition, "peer relationships" are regarded as associations among equals, close inspection of groups reveals clear differences in the relative status or authority of group members (Adler & Adler, 1998; Dunphy, 1963; MacLeod, 1995). The same dynamic is often (although not always) apparent in dyadic relationships. Being in a subordinate position in a group or dyad undermines the capacity of an individual to exert influence and may actually enhance openness to influence as a means of ensuring continuation of the relationship.

On the other hand, Crosnoe and Needham (2004) found that adolescents who were in positions of prominence within their friendship network were more likely to reflect the norms of that group (whether prosocial or antisocial) than more peripheral members. Although this could have been because central members were more likely to exemplify the group's primary characteristics, it is also conceivable that they felt stronger pressure to uphold group norms.

9. *Peer influence is contingent on an individual's opportunity and capacity to enact the behavior.* Much of the existing research is predicated on the assumption of an immediate connection between peer influence and consequent behavior. Laboratory conformity studies as well as research using hypothetical situations place respondents in a position re-

quiring an immediate response to peer influence. Inferred influence studies allow for a longer latency period between influence and response but still assume a rather direct connection. In most cases this is sensible, but it is important for investigators to bear in mind that there may be circumstances that prevent the peer influence from being transformed immediately—or perhaps ever—into responsive behavior. In giving or selling a fake identification card (ID) to a teenager, peers may structure an opportunity for the adolescent to engage in illegal drinking. If, however, the adolescent never has an occasion to use the fake ID or is prevented from attending a bar or nightclub by other means (e.g., parents' close supervision), then there is no discernible evidence of peer influence on the adolescent's behavior. Strong peer norms encouraging participation in sports may have no impact on an adolescent who is uncoordinated or has physical disabilities that prevent her or him from qualifying for an athletic team. Opportunity and capacity to enact a behavior are qualifying factors of peers' ability to influence someone's activities. It is rare for investigators to take these factors into account, and in many cases the idiosyncrasies of these factors may justify their being relegated to the ranks of error variance. However, researchers should be careful not to confuse the absence of opportunity or capacity to respond to peer influences with the lack of exposure to or ability to resist such influences.

10. *Other individual differences can affect exposure or response to peer influence.* In addition to the characteristics already specified (openness to influence, salience of influence agents, opportunity and capacity to enact behaviors that are the subject of influence), a wide range of individual factors may qualify the effects of peer influence on individuals and thereby qualify the peer influence process. Characteristics that researchers have considered are far too numerous to enumerate, but they involve demographic background (including gender), personality traits or dispositions, aspects of psychological well-being, activity patterns, relationships outside of the peer context (especially with family members), and social and cognitive skills. An important issue in considering these individual difference variables is whether they operate directly to modify exposure to peer influence or the effects of peer influence on behavior, or more indirectly through their impact on more proximal factors in the peer process (openness to peer influence, relationship dynamics, etc.).

11. *Peer influence is situated behavior.* The manifestations and effects of peer influence depend on the context in which it occurs. Usually, investigators retain a tight focus on specific features of peer influence, either neglecting or controlling for the fact that this influence operates within the broader context of adolescents' lives. Some of the earliest studies of peer influence serve as reminders of the value of keeping this

broader context in mind. Bronfenbrenner (1967), for example, found that Soviet and American early adolescents tended to shift their answers toward more adult-oriented norms on a cross-pressures type instrument when told that their responses would be shared with adults (parents or teachers). More surprising was that, when told that responses would be posted for classmates to see, American youth shifted their responses toward more of a peer orientation while Soviet students shifted again toward adult norms. Although peer influence was apparent in both comparison groups, the "antisocial" nature of this influence was apparent only for American youth. Similar cultural distinctions are apparent in more recent studies of immigrant youth (Umaña-Taylor & Bámaca-Gómez, 2003; Zine, 2001).

Not only do contextual factors shape the nature or direction of peer influence but they also may affect variables that moderate adolescents' responses to peer influence. Steinberg (1986) reported an inverse association between level of parental monitoring and early adolescents' susceptibility to antisocial peer pressures (openness to influence).

These findings raise concerns about how much can be gleaned from studies that remove the peer influence process from its naturally occurring context. Investigators have questioned the dynamics being tested in Asch experiments involving judgments about ambiguous stimuli. Are respondents acting in response to perceived peer group norms or simply attempting to give the best answer about an informational issue (e.g., which line is the same length as a criterion line) (Becker et al., 1966; Deutsch & Gerard, 1955)? Different age trajectories of conformity occur when the stimulus involves group norms, which are inherently ambiguous, as opposed to an informational item that has clearly right and wrong answers. Moreover, how closely would a respondent's behavior in the arbitrarily arranged peer group of a laboratory correspond to responses when confronted with an actual situation occurring in his or her own peer group? Similar questions can be raised about responses to hypothetical scenarios, many of which would be unlikely to ever occur within the respondent's actual group of friends (see Michell & West, 1996). As a general rule, the more closely investigators can approximate "real-life" circumstances in laboratory studies or investigations involving forced-choice self-report instruments, the more credible their findings will be. Recent investigations offer promising examples of ways to inject more reality into these settings (e.g., Cohen & Prinstein, 2006; Gardner & Steinberg, 2005).

12. *Peer influence is a temporal process, existing in several dimensions of time.* One of the greatest challenges for those interested in understanding the peer influence process is to establish the appropriate timetable for studying its dynamics. Laboratory studies typically focus

on immediate responses to instances of potential influence, but it may take more than one exposure to an influence for adolescents to be persuaded to accede to it (Walker-Barnes & Mason, 2001). Inferred influence studies, when well designed, allow for some latency period, but the length of this period is highly variable, from several months to a year or more. Significant events can occur in this interim that dilute the effects of the initial influence and lead to a misspecification of its effects: others may offer counterinfluences that figure into a respondent's behavior at follow-up measurement, or the friendships on which initial measures of influence were based can be terminated and replaced by associates with different values or behavior patterns.

Because peer influence is a rather constant but unpredictable set of events in the lives of most young people, it may be most prudent to conceptualize it as a collection of experiences occurring over time. The frequency and consistency of these experiences, along with their emotional or psychological impact, may be better metrics than the actual timing of exposure to influence. One can imagine, for example, a young person quickly crossing the street or the school courtyard or playground to avoid contact with a peer who is perceived to be heading the person's way. Although the peer has done nothing at that moment to affect the young person's behavior, events remembered in the past (a series of antagonistic interactions, for example) may inspire a current response from the person that clearly indicates peer influence. McIntosh, MacDonald, and McKeganey (2003) found that adolescents initiated drug use not in response to direct pressure from peers but out of fear of what their friends would say or do if they don't try the drug. Peers need not even be present to have an impact on young people's behavior. Shopping alone for clothing, adolescents may still be heavily influenced by peers through their anticipation of how peers would respond to a particular purchase, based on their recollection of previous encounters in which peers have commented on or responded to different dress and grooming styles.

THE CONCEPTUAL MODEL

With these 12 basic principles in mind we now present a comprehensive conceptual model of the peer influence process. The basic intent of this model is to provide a framework that investigators can use either to devise a coordinated set of studies of peer influence or to compare findings across a wide range of studies that address a variable assortment of model components. Although we have emphasized the transactional nature of peer influence, we downplay this basic principle in the model in deference to the overwhelming tendency of researchers to approach peer

influence from a more linear perspective. As we present features of the model we refer in parentheses to the principle that each feature addresses—"(P2)," for example—to indicate that a feature focuses on the multiple modes of peer influence.

The model assumes that events in an adolescent's life trigger the peer influence process, and that when an adolescent encounters peer influence he or she will respond either by accepting or acceding to the influence, rejecting or ignoring it, or confronting it directly with a counterinfluence. This response becomes an event in its own right, either constituting or leading to a new instance of peer influence that demands a response from the person to whom it is directed. This basic sequence of event, peer influence, and response, with the feedback loop, portrays the transactional nature of peer influence (P5), but with an emphasis on the steps in the sequence that allow for more linear analyses.

As presented in Figure 2.1, the event–influence–response sequence is the core of the model, along with the additional component of measurable outcome to the individual. Ultimately, most researchers and practitioners are concerned not with the existence of peer influence or a person's immediate response to it, but with its impact on a person's attitudes or behavior. These core components are presented in rectangular boxes, connected by bold-faced lines. Beyond these four core components, the model includes a number of other constructs or variables that qualify the sequence of events that transpire in the influence process, thus affecting the ultimate consequences of influence for the individual. We comment briefly on several features of the model.

Key Characteristics of Peer Influence

In characterizing the nature of influence, there are four features that researchers should consider, all based on the notion that such influence constitutes a constellation of experiences, rather than one specific act by peers. The first, which we label "timing," concerns whether the set of influences relevant to the triggering event are immediate and actual behaviors of peers, or peer behaviors that an individual anticipates based on previous experiences with agemates (P12). This feature acknowledges that adolescents may be influenced as much by peer reactions that might occur as by those that do occur, but that both of these are rooted at some point in actual experiences. In addition to timing, researchers should be aware of the mode or modes by which the influence is expressed (e.g., peer pressure versus structuring opportunities), especially if scholars demonstrate at some future point that modes vary systematically in their capacity to inspire compliance (P2). The intensity of peer influence (how strident peers are in pressing an adolescent to act or think in a certain
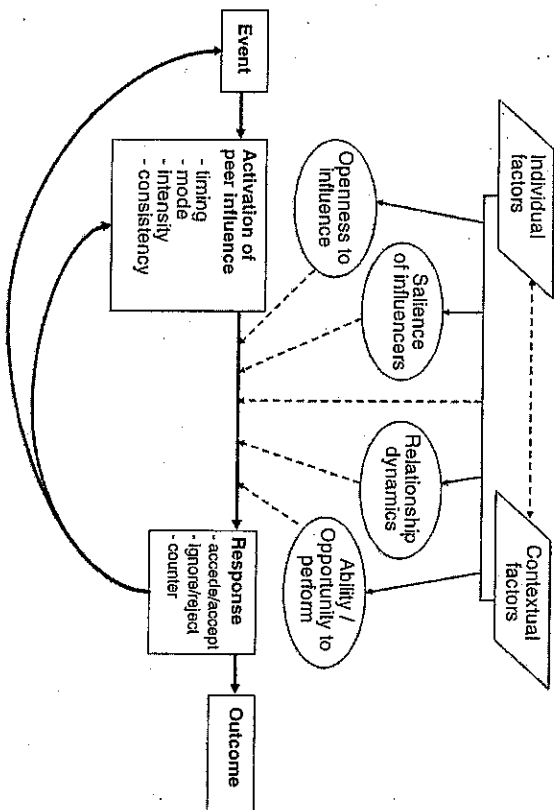
FIGURE 2.1. Conceptual model of the peer influence process.

way) and its consistency (the extent to which peers' actions all support a certain action or encourage a variety of actions) are also important features of peer influence to consider (P4). If all of these cannot be measured or controlled within a given study, then investigators need to be cautious about the conclusions they draw from their findings. Understandably, it is almost impossible for an investigator to identify the entire range of experiences with peers that may be brought to mind in the face of a specific instance of peer influence, but some effort to examine respondents' previous as well as present experience with peers is desirable.

Response Options

In most cases, investigators consider only two responses to peer influence: acceptance/accession or rejection/noncompliance. Those who wish to pursue the transactional nature of peer influence will be more concerned with the third option: efforts to deflect the peer action by generating counterinfluence (P5). Experimental laboratory studies and forced-choice questionnaire measures are rarely set up to allow for counterinfluences to be displayed and assessed, but the behaviors are readily apparent in observational and ethnographic research (Fordham & Ogbu, 1986; Granic & Dishion, 2003).

Modifying Variables

We emphasize four factors that can modify the effects of peer influence on individuals' response and ultimate behavior. These are represented in the model in the ovals, connected to the primary influence process by dashed lines. The first is how open individuals are to influence, in terms of attending to the peer behaviors that can constitute influence, as well as having a general disposition of susceptibility to influence (P6). Even with the appropriate attention and disposition to be influenced, an individual may not be affected by peer behaviors if they are not generated by salient peers (P7), or if the individual's relationship with peers mediates against them being persuasive sources of influence (P8). Finally, the effectiveness of peer influence depends on the individual's opportunity and capacity to perform the behaviors that agemates are urging upon the person (P9).

The model treats the four major qualifiers as independent effects on the peer influence process, but that may not be accurate. The salience of various peers is probably not independent of the history of an adolescent's relationship with them. Young people may be more disposed to attend to the behavior of some peers rather than others. Studies that incorporate all of the qualifiers can examine the degree to which they operate independently, as opposed to in a more complex, interdependent fashion.

Individual and Contextual Factors

Two additional qualifiers are portrayed as having more complex associations with other elements of the conceptual model. Both are placed in rhombuses to set them apart from other moderating variables. The first comprises individual difference variables not highlighted in the four major qualifiers (P10). The two individual characteristics most likely to be incorporated into research studies are age and gender, but a wide variety of other variables would fit into this category, including characteristics whose effects may be confined to specific events or outcomes. Peer pressures involving sexual activity may be affected by individuals' attitudes toward sexuality or history of sexual and romantic relationships, whereas these variables could be expected to have negligible effects on pressures involving sports participation.

Contextual factors constitute the other qualifier, reflecting the basic principle that peer influence is situated behavior (P12). Through this factor the peer influence process is connected to contexts beyond the peer social system: school, family, neighborhood and community, religious institutions, ethnic and cultural background, and so on. This

encourages investigators to avoid thinking of peer influences in monolithic terms, as somehow disconnected from the rest of young people's lives.

Although we have indicated that individual and contextual factors may directly modify the connection between influence and response or outcome, we also suggest that these factors may be connected indirectly to the process through their effects on other qualifiers. For example, gender and ethnic or cultural background seem to affect adolescents' openness to peer influence (Berndt, 1979; Giordano, Cernkovich, & DeMaris, 1993; Sim & Koh, 2003; Umaña-Taylor & Bámaca-Gómez, 2003). Similarly, one would expect that adolescents who value school success will look to high-achieving peers as more salient role models than peers who do poorly in school.

Developmental Considerations

Developmental or temporal considerations, which were the focus of our last basic principle (P12), may not be immediately apparent in this conceptual model, but they are encompassed in several of its components. Differences related to chronological age are incorporated in the individual factors qualifier. Relationship dynamics encompass temporal features of peer relationships that can moderate an individual's response to peer influence. The timing aspect of activation of peer influence addresses differences between the immediate experience of influence and anticipatory influence based on previous peer experiences. Finally, the event, activation, response, outcome sequence, with its potential transactional feedback loops, reflects the temporal order of actions that make up the peer influence process. Thus, developmental or historical time is manifest in each of the model's major features. Investigators are thereby urged to look beyond any specific developmental or temporal metric to consider the multiple ways in which time affects the peer influence process.

EXEMPLARY RECENT RESEARCH

To illustrate how the conceptual model can be used to connect findings from disparate research studies, we briefly review three recent investigations that address peer influence. The studies feature markedly different measures and methodological approaches, and they address distinct aspects of peer influence. By situating them within components of the conceptual model, one can begin to see how they converge to enhance our understanding of the peer influence process.

Allen and Colleagues: Effects of "Susceptibility"

Allen and colleagues (2006) examined how early adolescents' susceptibility to influence from a close friend was associated concurrently and longitudinally with problem behaviors and negative affect (depression). Their novel approach to measuring susceptibility, the number of times a target adolescent yielded to a friend in a joint decision-making task, is controversial because it could be argued that it actually measures response to peer influence, rather than susceptibility (openness to influence). If one treats the yielding measure as an indicator of openness to influence, the study findings indicate that this disposition not only moderates another qualifier in our model (relationship history, in that higher susceptibility was associated with lower rates of close friend stability) but also seems to affect rates of peer influence: observed level of susceptibility was associated with friend's reports of how much he or she influenced the target adolescent in various domains. Openness also functioned as predicted in our influence model, moderating associations between peer reports of drug use and adolescents' self-reported drug use, but this was only true for concurrent measures of drug use—not in assessments of adolescents' change over time. Moreover, openness was associated with changes in an important individual factor: the target adolescent's popularity among peers—reversing the direction of association between openness and individual factors as specified in our model and suggesting more of a bidirectional association between these two qualifiers.

If the yielding measure is treated as an indicator of response to peer influence, then the data provide evidence to support the presumed association between yielding to peer influence and psychological well-being (increased rates of depression over time), but not to changes in two behavioral measures (involvement in drug use and heterosexual intercourse). The connection between yielding and increases over time in friends' reports of influencing the respondent would be interpreted as evidence of the transactional nature of peer influence: Adolescents who yield to peers are likely to be subjected to increased rates of influence over time. These discrepant interpretations of findings underscore the need for consensus on definitions of key constructs in the peer influence process.

Granic and Dishion: Conversations between Friends

Like Allen and colleagues (2006), Granic and Dishion (2003) based their analyses on observations of close friends in a contrived, laboratory situation. However, they focused on the collaborative nature of the friends'
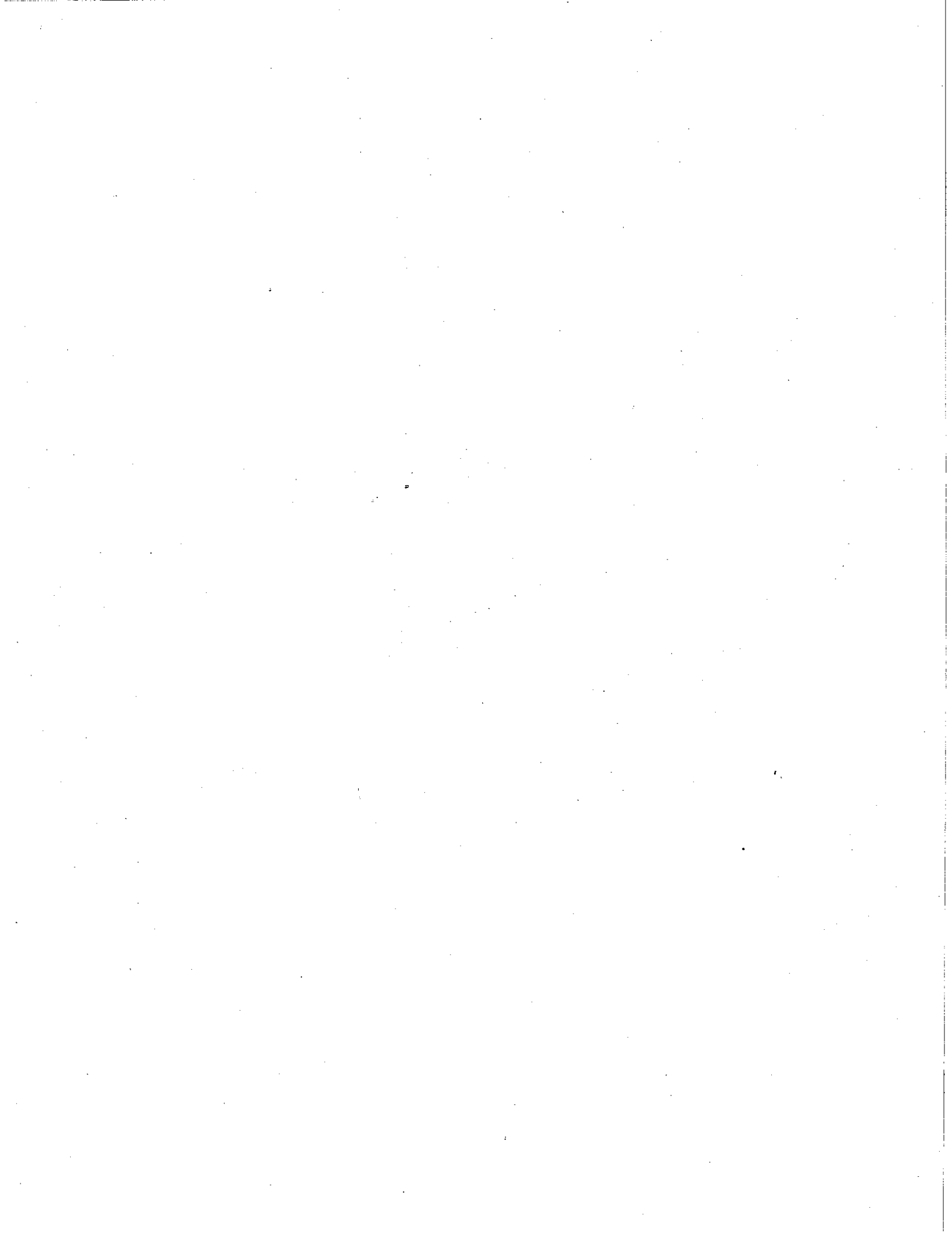
conversation (how one's reactions built on the other's comments, reciprocally), rather than on the competition for dominance that was central to the conversational task in Allen and colleagues' study. Although the samples in both studies were about the same age (early adolescence), Granic and Dishion dealt with high-risk youth. They focused on the pattern of "deviant talk" (antisocial commentary or reactions to the partner's commentary) over the course of a 30-minute conversation, assessing quite specifically the pair's tendency to return to deviant topics and spend progressively more time on these topics as the conversation went along. In model terms, at issue is whether a deviant comment (event) was greeted by behavioral reinforcement (peer influence), which drew a response of additional deviant comments (response and new event), leading to a feedback loop of deviant comments (response/event) and reinforcement (peer influence) that grew into longer conversation segments over the course of their discussion.

Analyses indicated that the degree of this conversational style predicted future antisocial behavior on several measures (outcomes), even after controlling for a number of potent predictors of deviance: gender, initial level of deviance, association with deviant peers, and coercive family interaction patterns. Some of the model modifiers (salience of influencers and relationship dynamics) were controlled in this analysis by confining the selection of interaction partner to close friend and using the dyad, rather than its members, as the unit of analysis for determining conversational style. Other modifiers (openness to influence, ability and opportunity to perform) were not considered, but some attention was given to individual factors (gender, history of delinquent behavior) and contextual factors (family features). The study's key contribution lay in its focus on core components of the peer influence model, demonstrating how a particular pattern of influence contributed to deviant outcomes in at-risk youth.

Cohen and Prinstein: Responses to High- and Low-Status Peers

In contrast to these analyses of conversation patterns, Cohen and Prinstein (2006) devised an intriguing variation on Asch's (1951) controlled laboratory experiment to examine how the salience of influencers modified middle adolescent boys' responses to a consistent behavioral display (peer influence). The respondents, all of whom had moderate levels of peer status, were joined in an electronic chatroom by peers (in reality, confederates created by the experimenters) whom the respondents were led to believe were specific classmates who were all either high or low in peer status. At issue was whether or not respondents

would alter their responses to hypothetical scenarios toward the more aggressive responses endorsed by their chatroom peers. As predicted, respondents gravitated toward more aggressive responses when (ostensibly) in the company of high-status peers but actually shied away from such responses when joined in the chatroom by low-status peers. These patterns emerged when respondents thought their chatroom peers could see their responses to the hypothetical scenarios as well as when they were led to believe that responses would remain private. When the investigators introduced an individual factor, social anxiety, as a possible moderator of this conformity pattern, they found that level of social anxiety did not affect respondents' responses to high-status peers, but those with high levels of social anxiety were more likely to conform to the aggressive responses of low-status peers than were respondents with low levels of social anxiety. In other words, respondents with high social anxiety were inclined to conform to peers regardless of their social standing, whereas those with low social anxiety were more discriminating in their response to peer influence.

Not only did Cohen and Prinstein (2006) derive a way to transform the face-to-face laboratory interactions of the original Asch experiments into the electronic social environment to which early-21st-century adolescents are accustomed, but they also incorporated a variety of specific responses to peer influence into the experimental design. They sampled public and private responses to peers, and they also embraced the transactional nature of peer influence by giving respondents an opportunity, at the end of the experiment, to vote someone out of the chatroom—an action that could be interpreted as a new event or peer influence that might trigger a response from other group members.

Commentary

The findings of these three studies do not converge into a single message about peer influence. Although they all deal with antisocial outcomes, the investigations vary too much in the type of relationship existing between initiator and target of influence, the type of pressure exhibited, and the specific modifiers of influence examined to allow for a direct comparison of findings. However, by translating each study into components of the comprehensive model, one can identify points of convergence that help to suggest possible next steps in each investigator's research agenda. Is the conversational style recorded by Granic and Dishion (2003) altered when interacting pairs vary in susceptibility to influence, and how does that susceptibility affect the impact of deviant conversation styles on each partner's future delinquency? Would either susceptibility to peer influence or social anxiety modify that chatroom

behavior of respondents in Cohen and Prinstein's (2006) experiment if they were made to believe that their chatroom partners were close friends rather than acquaintances of higher or lower status? The more that scholars keep the "big picture" of the peer influence process in mind, the easier it will be to design studies that do connect to other research in the area.

FINAL THOUGHTS

Some may question the wisdom of proposing a comprehensive general conceptual model of peer influence such as the one presented in this chapter. One could argue that the peer influence process is specific to various populations or types of behavior. The influence mechanisms and moderators are so different when it comes to one behavior (e.g., school achievement) than another (e.g., initiation into sexual activity or drug use) that it is more sensible to craft distinct conceptual models for each behavioral domain. Our careful review of the literature leads us to reject this argument because we found the same basic components being referred to across a diverse array of studies. Moreover, although investigators can easily focus on a particular source of influence or a specific behavior, adolescents do not encounter peer influence in such an isolated fashion. They move quickly from one peer social context to another, and within each context the focal topic is constantly shifting. If adolescents can learn to modulate this succession of types, targets, and topics of influence, scholars should be willing to work with a conceptual framework that can follow young people's efforts to negotiate this complicated social environment.

The three studies that we selected to illustrate our conceptual model exemplify the clever and novel ways in which scholars have isolated particular variables for study while engaging adolescents in tasks that closely approximate their actual experiences with peers. Combining self-report data, peer ratings, and/or reports of close associates with data from observations or controlled laboratory experiments is central to the success of these investigations. A challenge for future work is to coordinate these techniques of gathering information with ethnographic and other qualitative methodologies that provide data from the natural settings and naturally occurring interactions in which peer influence is manifest. In a society such as the United States whose dominant cultural group celebrates autonomy and demeans dependence on others, one must be especially conscious of social desirability response sets that may skew self-report data about peer influence processes (Carter, Bennetts, & Carter, 2003).

Over the past half-century, scholars have made remarkable progress in charting the nature and impact of peer influence on the lives of adolescents. Yet the dynamics of the peer influence process are just beginning to be well understood. The advent of more sophisticated and creative research designs allows scholars to build a better understanding of this influence process. We believe that a comprehensive conceptual model of peer influence can guide these efforts and lead to a more integrative view of this vital aspect of adolescent development and behavior.

REFERENCES

Adler, P. A., & Adler, P. (1998). *Peer power: Preadolescent culture and identity.* New Brunswick, NJ: Rutgers University Press.

Allen, J. P., Porter, M. R., & McFarland, F. C. (2006). Leaders and followers in adolescent close friendships: Susceptibility to peer influence as a predictor of risky behavior, friendship instability, and depression. *Development and Psychopathology, 18,* 155–172.

Asch, S. E. (1951). Effects of group pressure upon the modification and distortion of judgments. In H. Guetzkow (Ed.), *Groups, leadership, and men* (pp. 177–190). Oxford, UK: Carnegie Press.

Aseltine, R. H., Jr. (1995). A reconsideration of parental and peer influences on adolescent deviance. *Journal of Health and Social Behavior, 36,* 103–121.

Bandura, A., & Walters, R. H. (1963). *Social learning and personality development.* New York: Holt, Rinehart and Winston.

Bauman, K. E., & Ennett, S. T. (1996). On the importance of peer influence for adolescent drug use: Commonly neglected considerations. *Addiction, 91,* 185–198.

Becker, S. W., Lerner, M. J., & Carroll, J. (1966). Conformity as a function of birth order and type of group pressure: A verification. *Journal of Personality and Social Psychology, 3,* 242–244.

Berndt, T. J. (1979). Developmental changes in conformity to peers and parents. *Developmental Psychology, 15,* 608–616.

Bixenstine, V. E., DeCorte, M. S., & Bixenstine, B. A. (1976). Conformity to peer-sponsored misconduct at four grade levels. *Developmental Psychology, 12(3),* 226–236.

Britain, C. V. (1963). Adolescent choices and parent-peer cross pressures. *American Sociological Review, 28,* 385–391.

Bronfenbrenner, U. (1967). Response to pressure from peers versus adults among Soviet and American school children. *International Journal of Psychology*, 2, 199–207.

Brown, B. B., Clasen, D. R., & Eicher, S. A. (1986). Perceptions of peer pressure, peer conformity dispositions, and self-reported behavior among adolescents. *Developmental Psychology* 22, 521–530.

Burton, B. A., Ray, G. E., & Mehta, S. (2003). Children's evaluations of peer influence: The role of relationship type and social situation. *Child Study Journal*, 33, 235–255.

Carter, D. S. G., Bennetts, C., & Carter, S. M. (2003). "We're not sheep": Illuminating the nature of the adolescent peer group in effecting lifestyle choice. *British Journal of Sociology of Education*, 24, 225–241.

Cillessen, A. H. N., & Mayeux, L. (2004). From censure to reinforcement: Developmental changes in the association between aggression and social status. *Child Development*, 75, 147–163.

Cohen, G. L., & Prinstein, M. J. (2006). Peer contagion of aggression and health risk behavior among adolescent males: An experimental investigation of effects on public conduct and private attitudes. *Child Development*, 77, 967–983.

Costanzo, P. (1970). Conformity development as a function of self-blame. *Journal of Personality and Social Psychology*, 14(4), 366–374.

Costanzo, P. R., & Shaw, M. E. (1966). Conformity as a function of age level. *Child Development*, 37, 967–975.

Crosnoe, R., & Needham, B. (2004). Holism, contextual variability, and the study of friendships in adolescent development. *Child Development*, 75, 264–279.

Dekovic, M., Wissink, I. B., & Meijer, A. M. (2004). The role of family and peer relations in adolescent antisocial behavior: Comparison of four ethnic groups. *Journal of Adolescence*, 27, 497–514.

Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgment. *Journal of Abnormal and Social Psychology*, 51, 629–636.

Dishion, T. J., & Dodge, K. A. (2005). Peer contagion in interventions for children and adolescents: Moving towards an understanding of the ecology and dynamics of change. *Journal of Abnormal Child Psychology* 33, 395–400.

Dunphy, D. C. (1963). The social structure of urban adolescent peer groups. *Sociometry*, 26, 230–246.

Eckert, P. (1989). *Jocks and burnouts: Social categories and identity in the high school*. New York: Teachers College Press.

Eder, D. (1991). The role of teasing in adolescent peer group culture. *Sociological Studies of Child Development*, 4, 181–197.

Eder, D. (1995). *School talk: Gender and adolescent culture*. New Brunswick, NJ: Rutgers University Press.

Elliott, D. S., Huizinga, D., & Ageton, S. S. (1985). *Explaining delinquency and drug use*. Beverly Hills, CA: Sage.

Ennett, S. T., & Bauman, K. E. (1994). The contribution of influence and selection to adolescent peer group homogeneity: The case of adolescent cigarette smoking. *Journal of Personality and Social Psychology*, 67, 653–663.

Erikson, E. H. (1968). *Identity, youth and crisis*. New York: Norton.

Fine, G. A. (1987). *With the boys: Little League baseball and preadolescent culture*. Chicago: University of Chicago Press.

Fordham, S., & Ogbu, J. U. (1986). Black students' school success: Coping with the "burden of acting white." *Urban Review*, 18, 176–206.

Fuligni, A. J., Eccles, J. S., Barber, B. L., & Clements, P. (2001). Early adolescent peer orientation and adjustment during high school. *Developmental Psychology*, 37, 28–36.

Gardner, M., & Steinberg, L. (2005). Peer influence on risk taking, risk preference, and risky decision making in adolescence and adulthood: An experimental study. *Developmental Psychology*, 41, 625–635.

Giordano, P. C., Cernkovich, S. A., & DeMaris, A. (1993). The family and peer relations of black adolescents. *Journal of Marriage and the Family*, 55, 277–287.

Goldstein, S., Davis-Kean, P., & Eccles, J. (2005). Parents, peers, and problem behavior: A longitudinal investigation of the impact of relationship perceptions and characteristics on the development of adolescent problem behavior. *Developmental Psychology*, 41, 401–413.

Graham, J. W., Marks, G., & Hansen, D. (1991). Social influence processes affecting adolescent substance use. *Journal of Applied Psychology* 76, 291–298.

Granic, I., & Dishion, T. J. (2003). Deviant talk in adolescent friendships: A step toward measuring a pathogenic attractor process. *Social Development*, 12, 314–334.

Gurian, M. (1998). *A fine young man: What parents, mentors, and educators can do to shape adolescent boys into exceptional men*. New York: Tarcher/Putnam.

Hartup, W. W. (2005). Peer interaction: What causes what? *Journal of Abnormal Child Psychology*, 33, 387–394.

Hawkins, J. D., Catalano, R., & Miller, J. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin*, 112, 64–105.

Hersch, P. (1998). *A tribe apart: A journey into the heart of American adolescence*. New York: Ballantine.

Hoving, K. L., Hamm, N., & Galvin, P. (1969). Social influence as a function of stimulus ambiguity at three age levels. *Developmental Psychology*, 1, 631–636.

Iscoe, I., Williams, M., & Harvey, J. (1963). Modification of children's judgments by a simulated group technique: A normative developmental study. *Child Development*, 34, 963–978.

Jaccard, J., Blanton, H., & Dodge, T. (2005). Peer influences on risk behavior: An analysis of the effects of a close friend. *Developmental Psychology*, 41, 135–147.

Kandel, D. B. (1978). Homophily, selection, and socialization in adolescent friendships. *American Journal of Sociology*, 84, 427–436.

Kandel, D. B. (1985). On processes of peer influences in adolescent drug use: A developmental perspective. *Advances in Alcohol and Substance Abuse*, 4, 139–163.

Kiesner, J., Cadinu, M., Poulin, F., & Bucci, M. (2002). Group identification in early adolescence: Its relation with peer adjustment and its moderator effect on peer influence. *Child Development*, 73, 196–208.

Larson, L. E. (1974). An examination of the salience hierarchy during adolescence: The influence of the family. *Adolescence*, 9, 317–332.

Lashbrook, J. T. (2000). Fitting in: Exploring the emotional dimension of adolescent peer pressure. *Adolescence*, 35, 747–757.

Lightfoot, C. (1997). *The culture of adolescent risk-taking*. New York: Guilford Press.

MacLeod, J. (1995). *Ain't no makin' it: Aspirations and attainment in a low-income neighborhood*. Boulder, CO: Westview Press.

McIntosh, J., MacDonald, F., & McKeganey, N. (2003). The initial use of drugs in a

sample of pre-teenage schoolchildren: The role of choice, pressure and influence. *Drugs: Education, Prevention and Policy, 10*, 147–158.

Merten, D. E. (1996). Visibility and vulnerability: Responses to rejection by nonaggressive junior high school boys. *Journal of Early Adolescence, 16*, 5–26.

Michell, L., & West, P. (1996). Peer pressure to smoke: The meaning depends on the method. *Health Education Research 11*, 39–49.

Perlstein, L. (2003). *Not much just chillin': The hidden lives of middle schoolers.* New York: Ballantine Books.

Piaget, J. (1950). *La construction du réel chez l'enfant, 2ème éd [The construction of reality according to the child, 2nd ed.],* Neuchatel, France: Delachaux et Niestlé.

Pipher, M. (1994). *Reviving Ophelia: Saving the selves of adolescent girls.* New York: Ballantine Books.

Pruitt, B. E., Kingery, P. M., & Mirzaee, E. (1991). Peer influence and drug use among adolescents in rural areas. *Journal of Drug Education, 21*, 1–11.

Robin, S. S., & Johnson, E. O. (1996). Attitude and peer cross pressure: Adolescent drug and alcohol use. *Journal of Drug Education, 26*, 69–99.

Rodgers, J., & Rowe, D. (1993). Social contagion and adolescent sexual behavior: A developmental EMOSA model. *Psychological Review, 100*, 479–510.

Sebald, H., & White, B. (1980). Teenagers' divided reference groups: Uneven alignment with parents and peers. *Adolescence, 15*, 979–984.

Sim, T. N., & Koh, S. F. (2003). Domain conceptualization of adolescent susceptibility to peer pressure. *Journal of Research on Adolescence, 13*, 58–80.

Steinberg, L. (1986). Latchkey children and susceptibility to peer pressure: An ecological analysis. *Developmental Psychology, 22*, 433–439.

Steinberg, L., & Silverberg, S. B. (1986). The vicissitudes of autonomy in early adolescence. *Child Development, 57*, 841–851.

Sullivan, H. S. (1953). *The interpersonal theory of psychiatry.* New York: Norton.

Umaña-Taylor, A. J., & Bámaca-Gómez, M. Y. (2003). Generational differences in resistance to peer pressure among Mexican-origin adolescents. *Youth and Society, 35*, 183–203.

Urberg, K. A., Shyu, S., & Liang, J. (1990). Peer influence in adolescent cigarette smoking. *Addictive Behaviors, 15*, 247–255.

Vincent, M. A., & McCabe, M. P. (2000). Gender differences among adolescents in family, and peer influences on body dissatisfaction, weight loss, and binge eating behaviors. *Journal of Youth and Adolescence, 29*, 205–221.

Walker-Barnes, C. J., & Mason, C. A. (2001). Perceptions of risk factors for female gang involvement among African American and Hispanic women. *Youth and Society, 32*, 303–336.

Wiseman, P. (2002). *Queen bees and wannabes.* New York: Three Rivers Press.

Wood, M. D., Read, J. P., & Mitchell, R. E. (2004). Do parents still matter?: Parent and peer influences on alcohol involvement among recent high school graduates. *Psychology of Addictive Behaviors, 18*, 19–30.

Youniss, J. (1980). *Parents and peers in social development: A Sullivan–Piaget perspective.* Chicago: University of Chicago Press.

Zine, J. (2001). Muslim youth in Canadian schools: Education and the politics of religious identity. *Anthropology and Education Quarterly, 32*, 399–423.