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INFLUENCES OF FRIENDS AND FRIENDSHIPS: MYTHS, TRUTHS, AND RESEARCH RECOMMENDATIONS

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I. Introduction

Hypothesis 1: Friends have a significant influence on the attitudes and behavior of children and adolescents.

Hypothesis 2: Supportive, high-quality friendships have a positive influence on the self-esteem of children and adolescents.

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Much of the research on friendships in childhood and adolescence has focused on one or both of these general hypotheses about the influences of friends and friendships. The hypotheses may seem like common sense rather than like propositions that need to be proven, but research suggests that the first hypothesis is true and the second hypothesis is a myth (Berndt, 1999b; Keefe & Berndt, 1996).

In both popular and scholarly writings on the influences of friends and friendships, myths and truths coexist to a surprising degree. One possible reason that the myths are so widely accepted is that adults think they can accurately remember their childhood experiences, when those memories have actually been altered by later experiences. Another likely reason is that questions about childhood friends and friendships become entangled with people's ideas about adolescence, a period of life about which misconceptions abound. Yet another reason is that some of the previous research on friendship and friends' influence has serious methodological flaws or has yielded findings that have been misinterpreted.

Because many assumptions about the influences of friends and friendships have not been confirmed by empirical research, one aim of this chapter is to distinguish those that may be considered as truths from those that are myths. A second aim is to raise questions to which the correct answers are still unknown or uncertain and to suggest strategies for finding the answers. To achieve these two aims, the chapter includes some conclusions that can be drawn from previous research and some recommendations for future research.

The chapter is divided into three sections of unequal length. In the first and longest, we focus on the influences of friends' characteristics. In other words, we examine how children's and adolescents' attitudes, behaviors, and other characteristics are influenced by the corresponding characteristics of their friends. Friends' characteristics represent one important pathway of friends' influence (Berndt, 1992), and this pathway has been explored for decades by researchers from many disciplines. Many issues have been thoroughly investigated, and many conclusions can be drawn.

In the second, shorter, section of the chapter, we focus on the influences of friendships. More specifically, we examine how children and adolescents are affected by having friendships that differ in positive features such as intimacy or in negative features such as conflicts. By assessing these features, researchers have tried to judge the quality of specific friendships. Friendship quality represents a second pathway of influence, one dealing not with the friends as individuals but with the relationship between friends (Berndt, 1992). Research on friendship quality is little more than a decade old, so only a few conclusions about its influence can be drawn with confidence. However, some seemingly plausible hypotheses about friendship quality already appear to be myths. In particular, research has failed to confirm the hypothesis that high-quality friendships enhance adolescents' self-esteem.

In the third section of the chapter, we focus on possible interactions between the influences of friends' characteristics and friendship quality. This section is brief because most researchers who have probed the influence of friends' characteristics have not assessed the relationships between those friends. Conversely, most researchers who have probed the influence of friendship quality have not assessed the characteristics of the individuals who are friends.

However, questions about possible interactions between the two pathways of influence have great theoretical and practical significance. Most theories of interpersonal influence include some form of the hypothesis that children and adolescents are more influenced by the characteristics of friends when those friendships are higher in quality. If such interactions between friends' characteristics and friendship quality are not found, those theories will need to be revised.

The practical significance of interactions between the two influence pathways can be illustrated with an apparently simple question: Is trying to increase the quality of children's or adolescents' friendships always a good idea? The answer would be yes, if high-quality friendships always have positive effects. The answer would be no, if the harmful influence of friends with negative characteristics is magnified when those friendships are higher in quality. We examine the evidence on this question, and on other types of interactions between friends' characteristics and friendship quality, in the third section of the chapter.

Throughout the chapter, we emphasize studies of friendships among school-age children and adolescents, because few researchers have investigated preschool children's friendships (but see Howes, 1996). Similarly, few researchers have investigated the changes in friendship between adolescence and adulthood (but see Furman & Buhrmester, 1992). Instead, researchers have generally focused on students in elementary schools, in middle or junior high schools, or in senior high schools. In this chapter, the age of the participants is mentioned in the description of specific studies. For simplicity, however, we use the term *children* to refer to both school-age children and adolescents when statements or issues apply to both.

II. Influences of Friends' Characteristics

The hypothesis that children are influenced by their friends' attitudes and behaviors is hardly controversial. This hypothesis can be found in the philosophical and religious writings of authors from thousands of years ago. Nevertheless, four important issues concerning the influences of friends' characteristics are not well understood.

The first issue is whether the predominant direction of friends' influence is positive or negative. In other words, does friends' influence generally lead to desirable or undesirable changes in children's attitudes and behaviors? The second issue concerns the processes by which friends influence each other. More specifically, is friends' influence primarily a result of the social pressure that friends exert on children, as Bronfenbrenner (1967, 1970) argued, or are other influence processes

more important? The third issue concerns the magnitude of friends' influence. Do friends have a powerful influence on children, strongly determining the changes over time in their behavior? The fourth issue is how the magnitude of friends' influence changes with age. In particular, do the available data support the widely accepted idea (e.g., Steinberg, 1999) that friends' influence increases between childhood and adolescence but declines in late adolescence?

A. MYTH: FRIENDS' INFLUENCE IS PREDOMINANTLY NEGATIVE

A prominent theme in writings about adolescents is that they are negatively influenced by their peers. The peers who are such a negative influence on adolescents are not always specified, but many writers suggest that they are the members of the adolescents' friendship groups. For example, friends supposedly encourage adolescents to smoke cigarettes, drink alcohol, use drugs, and put little effort into their schoolwork.

Certainly, some adolescents have friends who negatively influence their behavior. Some adolescents have friends who smoke cigarettes and pass cigarettes to their nonsmoking friends. Some adolescents have friends who bring alcoholic beverages to every social occasion and encourage friends to join them in drinking. And some have friends who invite them to spend time in social activities rather than in doing their homework or studying for school exams.

The question, though, is whether most adolescents have friends who exert such a negative influence on their behavior. It is not surprising, perhaps, to think that they do. Several undesirable behaviors such as cigarette smoking, alcohol use, and the use of other illegal drugs increase during adolescence. Interactions with friends also increase during adolescence, and groups of friends often smoke cigarettes, drink alcohol, and use illegal drugs together. Nevertheless, these bits of evidence are not an adequate basis for the conclusion that friends' influence is the cause of the increase with age in negative behaviors. Likewise, these bits of evidence are not an adequate basis for the conclusion that friends' influence is predominantly negative. Before drawing these conclusions, researchers would need to supplement these general observations with data obtained using more sophisticated methods for assessing social influence.

1. Assessing the Direction of Friends' Influence

Researchers have used several methods to assess friends' influence, but an especially powerful method is to see how changes over time in children's characteristics are related to the initial characteristics of their friends. Researchers conclude that friends' influence has been demonstrated if the children's characteristics become more similar over time to the initial characteristics of their friends.

Using this method, Berndt and Keefe (1995) examined how students' attitudes, behavior, and achievement in school were influenced by their friends' attitudes, behavior, and achievement. The sample included approximately 300 seventh and eighth graders who initially were assessed late in the fall semester. The students reported on their positive involvement in classroom activities and on their disruptive behavior at school. In addition, the students named their three best friends. Two teachers of each student reported on the student's involvement, disruptive behavior, and report-card grades. Because most students named friends who were also participating in the study, the friends' scores for involvement, disruption, and behavior could be matched with the students' scores.

The students' attitudes, behavior, and achievement were assessed again in the spring semester of the school year, 5–6 months after the first assessment. With this longitudinal design, the changes during the year in the students' adjustment to school could be evaluated. In addition, the relation between changes in students' adjustment and friends' adjustment in the fall semester could be determined.

More specifically, Berndt and Keefe did hierarchical regression analyses in which each measure of the students' adjustment in the spring was the criterion variable in a separate analysis. The first predictor in every analysis was the same measure of the students' adjustment in the fall. The second predictor was the corresponding measure of the friends' adjustment in the fall. Using the fall measure of the students' adjustment as the first predictor controlled for the substantial continuity in students' adjustment during a school year. For example, students who are highly involved in classroom activities in the fall of a school year typically are highly involved in the spring semester. With this continuity taken into account, the results of the analyses can show what influenced the changes in students' adjustment during the year. In particular, if a measure of the friends' adjustment in the fall significantly predicts students' adjustment in the spring, then it is reasonable to conclude that the friends influenced the changes during the year in students' adjustment.

Berndt and Keefe's (1995) analyses suggested that friends significantly influenced changes in some aspects of students' adjustment. For example, changes during the year in students' self-reported disruptive behavior were associated with their friends' level of disruptive behavior in the fall. One way to summarize these findings would be to say simply that friends influenced adolescents' disruptive behavior at school. However, such a summary could easily be misinterpreted. Because the label, *disruptive behavior,* refers to negative or undesirable behaviors, readers might erroneously conclude that these findings show that friends had an entirely negative influence on adolescents' behavior.

Berndt and Keefe were careful to point out that their significant findings reflected two types of changes over time in students' disruptive behavior. First, students who initially had friends who were high in disruptive behavior increased their disruptive behavior. Second, students who initially had friends who were low in disruptive behavior *decreased* their disruptive behavior. The results of hierarchical regression analyses do not differentiate between these two types of changes. However, many researchers use their analytic technique to examine friends' influence on behaviors that are labeled negatively, such as drinking alcohol, using drugs, and engaging in delinquent behavior. And when the analyses suggest significant influences of

friends, the researchers often describe their findings as showing that friends influence those behaviors. Readers of the research reports are very likely to infer that these reports bolster the argument for negative influences of friends by showing that friends promote increases (and never decreases) in drinking, drug abuse, and delinquency.

On rare occasions, researchers have used data-analytic techniques that make it possible to distinguish between the negative and the positive influences of friends. For example, Epstein (1983) used grades and achievement-test scores of students in the fourth through eleventh grades as indicators of their academic achievement. She also obtained the names of the students' friends, and linked the achievement scores of students and their friends. Next, she divided the students in each grade into those who were either relatively high or relatively low in achievement. Then she determined whether these students had friends who, on the average, were relatively high or relatively low in achievement. One year later, she assessed the students' achievement again.

Epstein found that the groups of students whose friends' average level of achievement was different from their own became more similar to their friends over time. That is, the students who initially were relatively high in achievement but who had friends relatively low in achievement decreased in their achievement. Conversely, the students who intially were relatively low in achievement but who had friends relatively high in achievement increased in their achievement. Most important, the positive influence of high-achieving friends seemed to be as great as the negative influence of low-achieving friends.

The predominant direction of friends' influence might still be predominantly negative if most children chose friends whose social, psychological, and academic adjustment was worse than their own. For example, friends would have a largely negative influence on children's academic achievement if most children chose friends lower in achievement than they were themselves. Yet this hypothesis can be rejected, because decades of research have shown that children choose friends who are similar to themsevelves in achievement and in many other attributes (McPherson, Smith-Lovin, & Cook, 2001). Moreover, when children seek friends different from themselves, they typically aim for friends higher in achievement and in other positive attributes than they are themselves (e.g., Savin-Williams, 1987).

The tendency of children and adolescents to choose friends whose adjustment is as good as or better than their own explains other findings that are inconsistent with popular beliefs about friends' influence. Most adolescents report that their friends put more pressure on them to remain positively involved in school than to be uninvolved (Clasen & Brown, 1985). Most adolescents say that their friends disapprove rather than approve of cigarette smoking (Urberg, Shyu, & Liang, 1990), and most say that their friends discourage rather than encourage drinking alcohol (Keefe, 1994). This evidence is so consistent and so contrary to popular belief that it deserves to be stated as the first truth about friends' influence:

> Truth: During childhood and adolescence, friends generally encourage socially desirable behaviors.

2. *Taking a Theoretical Perspective: Similarity and Group Shifts*

The evidence reviewed thus far either fails to confirm or directly disconfirms the hypothesis that friends' influence is predominantly negative in childhood and adolescence. But is it appropriate to call this assumption about friends' influence a *hypothesis*? Calling it a hypothesis raises a question about the theory from which it derives. In fact, there is none.

Stated more fully, the literature on friends' influence is almost entirely atheoretical, and very few researchers have explicitly discussed whether it makes sense to assume that friends' influence could be biased in a negative direction. Researchers who have linked questions about friends' influence to general theories of social influence have invariably reached a different conclusion (e.g., Hartup, 1996). These theories include the implicit or explicit hypothesis that social influence makes people's characteristics more similar to those of their relationship partners. Thus, a partner's influence may increase positive or negative behaviors, depending on the partner's behaviors. Consequently, the idea that friends have a predominantly negative influence should be considered as no more than a myth. That idea should be replaced by the following:

> Truth: Rather than being largely negative, the direction of friends' influence is usually to make children's characteristics more similar to their friends' characteristics.

In the preceding statement, the word *usually* does not reflect only the caution of researchers and scholars about making absolute statements. It also reflects a tradition of research on social influence in which similarity is not the typical outcome of influence processes. In the 1960s, social psychologists began research on what was first known as the *risky shift* but later was given the more general label of *group polarization* (Isenberg, 1986). This research was inspired by a few studies in which small groups of adults were asked to make a decision that involved risk. For example, they were told about a person who had to choose between two jobs, one with high security but a low salary and another with a high salary but low job security.

After a group discussion, adults often chose more risky alternatives than the average position of the group members before the discussion. In other studies with other types of decisions, groups sometimes chose more conservative alternatives than the average positions of the group members before their discussion. Over time, researchers discovered that the effect was not limited to discussions of decisions regarding risk versus caution but was applicable to a wide range of decisions. When the average positions of group members were biased in one direction before discussion, that bias usually increased after discussion, so the final group decision was more extreme than the initial opinions of the individuals in the group would have suggested. In short, discussions seemed to push group decisions toward one

extreme or the other, making different groups more polarized than they were initially.

Very few researchers have examined the phenomenon of group polarization with children or adolescents. In one study (Berndt, McCartney, Caparulo, & Moore, 1983–1984), groups of four students in the third grade or in the sixth grade discussed dilemmas involving honest behavior and altruistic behavior. The discussions led to shifts in students' decisions: Groups shifted toward more altruistic choices on the altruism dilemmas and toward more dishonest choices on the honesty dilemmas. However, contrary to research on group polarization in adults, the initial bias in a group's opinions had relatively little impact on the direction or degree of change in decisions.

Another study involved discussions between pairs of eighth graders who were close friends (Berndt, Laychak, & Park, 1990). The friends discussed hypothetical dilemmas related to achievement motivation. For example, they had to decide whether to spend an evening at a rock concert or to stay home and study for an important exam at school the next day. Before and after the discussions, the students made independent decisions about the dilemmas.

The discussions resulted in shifts in the average decisions of the pairs of friends, but the shifts were sometimes toward more neutral rather than more polarized decisions. The direction of the shifts was related to the arguments made and the information exchanged during the discussions. Also analyzed was whether the decisions by the two friends became more similar after their discussions, and these analyses confirmed that the discussions did increase the similarity of friends' decisions.

Obviously, two studies of children's discussion do not provide a basis for any conclusions. However, the studies are provocative, in part because they illustrate an experimental paradigm for examining friends' influence. Thus they lead to a recommendation for future research:

> Research recommendation: Examine the effects of friends' discussions, seeking to explain both increases in friends' similarity and group shifts.

Additional studies of friends' discussions would be valuable not simply because they allow the exploration of friends' influence with a fully experimental design. They are also valuable because they can illuminate a phenomenon that may be of great practical significance. Sometimes groups of individuals decide on joint actions that none of the individuals would have done alone. The scientific literature on such cases is diverse, ranging from studies of groupthink to studies of mob psychology and gang behavior (e.g., Janis, 1982; Thrasher, 1927). For example, Thrasher's (1927) classic monograph on Chicago gangs includes many examples of adolescents engaging as a group in acts of burglary and theft that they would have been unlikely to attempt as individuals. This literature suggests that the causes of single episodes of collective action may differ from the causes of

long-term changes in individuals' attitudes and behavior. The longitudinal studies described earlier in this section are valuable in showing to what extent long-term changes in children's attitudes and behavior are a consequence of friends' influence. Experimental studies of friends' discussions are valuable in understanding the immediate influence of a group of friends on an individual's decisions.

B. MYTH: SOCIAL PRESSURE IS THE PRIMARY PROCESS OF INFLUENCE BETWEEN FRIENDS

In groundbreaking research, Bronfenbrenner (1967, 1970) argued that peers have influence because they put pressure on children to change their behavior. Bronfenbrenner was referring to the influence of all of a child's peers, which might include all the child's classmates or perhaps an even larger group. Nevertheless, the idea that peer pressure is the primary process of influence between friends has been widely accepted. Moreover, the idea that friends' influence depends on peer pressure has often been linked, as it was by Bronfenbrenner (1970), to the idea that the direction of friends' influence is predominantly negative. Based on these arguments, intervention programs were designed to train children to resist the negative pressure they supposedly were receiving from peers (see Cook, Anson, & Walchli, 1993).

Many types of research have shown, however, that the idea of a group of friends putting pressure on a single child to do whatever they want the child to do is a myth. First, ethnographic research has shown that peers rarely put pressure on children in a group to conform to some standard for behavior (Sherif & Sherif, 1964; Suttles, 1972). In adolescents' groups, decisions about what to do together are generally made after an informal discussion in which each person has an opportunity to influence the others and to be influenced by the others. One member of the group is likely to be more influential than others, but not even that person can force the others to do what he or she wants. Force is unlikely because friendship groups are voluntary. Faced with pressure to conform, an adolescent can simply choose to leave the group.

Second, children themselves report that they do not face much pressure from peers to do things they do not want to do (Ansley & McCleary, 1992). When talking about their relationships with friends, children are even more definite in saying that friends must accept and respect each other (Berndt, Miller, & Park, 1989; Rawlins, 1992). In particular, friends must recognize one another's rights to think differently or to choose different activities than they do.

Long ago, Piaget (1932/1965) made similar comments about all relationships among peers. He said that peer relationships in middle childhood and adolescence are based on mutual respect. Peers understand that they cannot reach agreement if one individual insists on the right to make a decision for all; agreement can be reached only if everyone listens to everyone else's opinions and then seeks a

solution satisfactory to all. This portrait of peer relationships may seem idealistic, but children know that if they are not happy with how their group of friends treats them, they are always free to say, "I won't be your friend anymore."

Third, when pressure is applied in peer groups or between friends, it is usually a sign of conflict rather than a prelude to agreement. In the experimental study of friends' discussions mentioned earlier (Berndt *et al.*, 1990), less change in the friends' independent decisions occurred when discussions were high in conflict than when they were harmonious. Similar results have been found with peers' discussions of moral dilemmas (Damon & Killen, 1982).

Fourth, a few of the programs designed to increase adolescents' skills in resisting peer pressure have been evaluated rigorously (Cook *et al.*, 1993). The programs were intended to reduce drug use in adolescence, and the evaluations indicated that the programs were successful. However, their success was less closely related to their effectiveness in teaching the adolescents to resist peer pressure than to their ability to convince adolescents that their peers generally did not use drugs and did not want to do so. That is, the programs were effective because they changed adolescents' perception of their peers' norms regarding drug use, not because they made adolescents less susceptible to peer pressure. These findings are not at all surprising if, indeed, social pressure is not the usual way that friends and other peers influence adolescents' behavior.

If not social pressure, then which processes are primarily responsible for friends' influence? During childhood and adolescence, friends' influence depends on the same processes that explain social influence at other ages. One important process is social reinforcement, and the effects of peer reinforcement have been demonstrated in many laboratory experiments (Hartup, 1983). The power of peer reinforcement in natural settings was vividly demonstrated by Dishion and his colleagues (e.g., Dishion, McCord, & Poulin, 1999; Dishion, Poulin, & Burraston, 2001; Dishion, Spracklen, Andrews, & Patterson, 1996). They found that boys high in antisocial behavior often laugh or provide similar positive responses when a friend jokes about behaviors that are deviant or that break social rules. Moreover, the greater the amount of reinforcement, the greater the escalation over time in the boys' substance use, aggressive behavior, delinquency, and high-risk sexual behavior. In short, Dishion's research confirms that friends need not pressure children to engage in deviant behavior. All friends need to do is make that behavior seem exciting and enjoyable.

Social learning theory suggests the importance of observational learning among friends (Bandura, 1977). Learning from peer models has been demonstrated in many laboratory experiments (Hartup, 1983; Schunk & Zimmerman, 1997), and occurs in natural settings as well (Berndt, 1999a). A negative exampls is when an adolescent sees a friend smoking a cigarette and decides to try one too. A positive example is when an adolescent hears from a friend that he or she will spend the evening studying for a school exam and decides to do the same.

Another process that is rarely mentioned in connection with friends' influence is rational decision making through information exchange. With only one exception, theorists who have considered the phenomenon of peer influence have emphasized social and emotional processes and ignored cognitive processes. The exception is Piaget (1932/1965), perhaps the only prominent psychologist of the 20th century who had an unequivocally positive view of peer relationships. (Ironically, he was perhaps the only prominent psychologist in that century who had an unequivocally negative view of parent–child relationships!) Piaget argued that the mutual respect in peer relationships arises from peers' ability to understand one another's perspectives. This understanding improves during discussions with peers, and increased perspective-taking leads to greater maturity in moral reasoning. Similar hypotheses about the benefits of discussions among friends have been tested and largely supported in research inspired by Kohlberg's extension of Piaget's theory of moral development (e.g., Walker, Hennig, & Krettenauer, 2000).

Another cognitive explanation of group influence has been thoroughly examined by researchers who have tried to understand the phenomenon of group polarization (e.g., Vinokur & Burnstein, 1978). These researchers emphasize the effects of persuasive arguments on the shifts that occur in group decisions after discussion. Their research has shown that group shifts can usually be predicted from a content analysis of the number of arguments for each decision that are expressed during a discussion and observers' ratings of the persuasiveness of those arguments. Berndt and his colleagues tested a simplified version of this model in his experimental studies of decision making in four-person groups (Berndt *et al.*, 1983–1984) and in pairs of friends (Berndt *et al.*, 1990). In each study, analyses of the information exchanged during the discussions showed that group shifts occurred in the direction supported by the greatest number of arguments.

In short order, then, this survey of influence processes has covered the spectrum from coercive pressure at one extreme to something very close to a reasoned debate at the other extreme. Many strands of evidence indicate that coercive social pressure is a rarely used and rarely effective technique of influencing friends. More commonly used and more effective are processes of reinforcement, observational learning, and information exchange. This conclusion can be summarized as follows:

> Truth: Many processes are involved in friends' influence, but social pressure is uncommon.

Weaknesses in the research base supporting this conclusion about influence processes must be acknowledged, however. The preceding survey of specific processes and their effects was not a selection of illustrative examples from a much larger literature. Unfortunately, we have cited much of the data available, particularly about children and their friends. Too often, those data come from laboratory experiments exclusively, from a single research program, or from fewer than a handful

of studies. These gaps in the literature lead to the following recommendation for research:

> Research recommendation: Use observational and experimental studies to increase understanding of processes underlying friends' influence.

The value of observational studies is demonstrated by the research on the reinforcement of deviant behavior during antisocial boys' interactions with friends (Dishion *et al.*, 2001). The value of experimental studies is demonstrated by the research on group discussions (Berndt *et al.*, 1983–1984, 1990). More research with similar methods would add substantially to our understanding of exactly how friends influence one another during childhood and adolescence. That research would, in turn, provide a surer foundation for interventions designed to enhance the positive influence and reduce the negative influence of friends on children's behavior.

C. MYTH: FRIENDS POWERFULLY INFLUENCE CHILDREN'S ATTITUDES AND BEHAVIOR

Assertions about how friends pressure children to behave are often coupled with assertions about how powerful the influence of friends is. Many writers have stated, often with great alarm, that friends have a very strong influence on children's and adolescents' behavior (e.g., Bishop, 1989). Unfortunately, many studies of friends' influence contain serious methodological flaws that lead to inflated estimates of friends' influence. For several decades, thoughtful researchers have repeatedly pointed out these flaws (e.g., Kandel, 1978, 1996). However, the same flaws continue to be found in published studies, even in the most selective journals, so they must be pointed out again.

1. Friendship Selection Versus Friends' Influence

One major flaw is the use of a correlation between children's characteristics and their friends' characteristics as an indicator of the friends' influence on the children's characteristics. At first glance, this practice may seem perfectly reasonable. A correlation provides one estimate of the similarity between two variables, and one of the truths stated earlier was that the usual result of friends' influence is an increase in friends' similarity. Where's the problem?

The problem is that friends' similarity is not always the result of their influence on one another. Two individuals may become friends because they are already similar to each other. Moreover, the formation of friendships between children who are already similar may result not only from a conscious selection process but also from other circumstances that create opportunities for friendship formation (McPherson *et al.*, 2001). For example, friends tend to be approximately the same age, undoubtedly because children's classmates tend to be the same age and being in the same class gives students many chances to get to know one another and then to become friends. Researchers use the term *selection* to refer to all processes, conscious or not, that cause children who are similar in certain characteristics to become friends.

Selection can explain a substantial part of the similarity that exists between friends on characteristics that have been the focus of research (Fisher & Bauman, 1988). Friends may be similar in cigarette smoking, for example, because all smokers gather in the same place on the school grounds to smoke, and all nonsmokers avoid that location. Friends may be similar in alcohol use because those who want to drink alcohol attend the parties at which they know alcohol will be available, while those who do not want to drink stay away.

Kandel (1978, 1996) has argued that approximately half of the variance represented by a correlation for best friends' similarity is due to selection rather than influence. By contrast, Cohen (1977) estimated that substantially more of the similarity among adolescents in a friendship group is due to selection than to influence. These contrasting estimates are difficult to evaluate because the two researchers examined friends' similarity on different characteristics and used different methods to assess selection and influence. Unfortunately, few other researchers have tried to estimate the relative importance of selection and influence for friends' similarity. What is clear, though, is that friends' similarity at one point in time provides little information about the friends' influence on one another. Thus, the next recommendation is:

> Research recommendation: Do not use similarity at one time to estimate friends' influence.

Of course, negative recommendations are normally less useful than positive ones. The positive version of the recommendation would be to conduct either longitudinal studies or experimental studies to assess friends' influence. Unfortunately, neither of these designs can provide precise estimates of friends' influence in natural settings. Longitudinal studies done over periods of a few months or a year can only show how much influence friends had on changes in children's characteristics over that period. Moreover, they are imperfect for that purpose, because some children change their friends between times of assessment, and the combined influences of their old and new friends are impossible to assess. Therefore, the findings of longitudinal studies probably underestimate the influences of friends.

Experimental studies involve the manipulation of participants' experiences, so they cannot do much to clarify the strength of friends' influence in natural settings. Moreover, experimental studies of discussions between friends may partly obscure the full array of processes by which friends influence one another. Consequently, the value of these studies is less in showing how much friends actually influence each other than in increasing understanding of one specific way in which they do so.

2. Children's Reports on Friends Versus Friends' Self-reports

Another major flaw in the research on friends' influence is using children as informants both on their own attitudes and behaviors and on their friends' attitudes and behaviors. In some studies, this flaw is coupled with the previous flaw of using a correlation for friends' similarity at one time as an index of friends' influence. That is, researchers estimate the strength of friends' influence from the size of the correlation between children's reports on their own characteristics and their reports on their friends' characteristics (see Ide, Parkerson, Haertel, & Walberg, 1981). But even when researchers use a longitudinal design to determine how much friends' influence on one another increases their similarity, having children report both on their own characteristics and on their friends' characteristics leads to seriously inflated estimates of friends' influence (Kandel, 1996).

For example, Table I shows some estimates of friends' influence obtained in the study described earlier by Berndt and Keefe (1995). Besides reporting on their own involvement in school and disruptive behavior, students reported on their friends' involvement and disruption. The friends' involvement and disruption could also be judged from their reports on themselves, because of the matching of students with friends that was noted earlier. Table I shows the standardized regression coefficients from hierarchical regression analyses in which students' involvement or students' disruption in the spring of the year was the criterion, students' involvement or disruption in the previous fall was the first predictor, and friends' involvement or disruption was the second predictor. Only the results for the second predictor are shown in the table, because those are most relevant.

For the analyses of students' reports on friends' involvement and disruption, the results are shown for the students' very best friend and for the average of three best friends. For the analyses of the friends' actual reports, results are shown for the

TABLE I

Standardized Regression Coefficients from Analyses in Which Students' Reports on Friends and Friends' Self-reports Were Predictors of Students' Adjustment in the Spring of a School Year, with Students' Adjustment in the Previous Fall Statistically Controlled

	Friends' measure	
Adjustment measure	Very best friend	Multiple friends
Classroom involvement		
Students' reports on friends	.17***	.17***
Friends' self-reports	.03	−.02
Disruptive behavior		
Students' reports on friends	.12*	.24**
Friends' self-reports	.12*	.15**

*$p < .05$. **$p < .01$. ***$p < .001$.

influence of the closest friend with whom each student could be matched and for the average of all the friends (up to three) with whom a student could be matched. Table I shows that the estimates of the influence of the very best friend are generally comparable to the estimates of the influence of multiple friends. More important, for very best friends and for multiple friends, the estimates of friends' influence are generally higher for measures derived from students' reports on friends than for measures derived from the friends' self-reports. For involvement and disruption, the estimates derived from students' reports on friends are highly significant and those derived from the friends' self-reports are close to zero.

The difference exists because children believe they are more similar to their friends than they actually are (Aboud & Mendelson, 1996). When children are asked how their friends think and act, they largely report how they themselves think and act. Thus, they project their own attitudes and behavior onto their friends. Because of the similarity between friends, projection may sometimes lead to partly accurate reports on friends. However, for some characteristics such as sexual attitudes, children's reports on friends may be mostly or completely inaccurate (Wilcox & Udry, 1986).

Despite their flaws, measures of friends' characteristics that derive from children's reports on friends abound in the literature. Children have been asked to report how many of their friends smoke, how often their friends drink alcohol, whether their friends use marijuana, and so on. Even more troubling is the common practice of mentioning the use of children as informants on friends only in a brief note in the Methods sections. The Abstract, Introduction, Results, and Discussion sections are written as if the researchers directly assessed the friends' smoking, drinking, drug use, or whatever behavior is under investigation. This practice is seriously misleading.

Obtaining reports directly from friends is not an easy matter. A researcher must first get precise information on the identity of students' friends, then make certain that a substantial number of those friends are also research participants, and then manipulate the data to match students' scores with their friends' scores. These tasks can be logistically challenging and technically complex. By contrast, obtaining children's reports on friends is trivially easy. A single questionnaire can be given to a large number of children that includes items about both the children and their friends. This procedure is very economical, but it is a false economy. At a minimum, this method exaggerates the magnitude of friends' influence, but it could also distort research findings in other ways. For example, the accuracy of children's reports of their friends' characteristics may differ for boys and girls (e.g., Berndt & Keefe, 1995) or for children of different ages. Consequently, analyses of these reports may lead to incorrect conclusions about gender and age differences in friends' influence.

Problems exist not only with measures based on children's reports of their friends' characteristics, but also with measures based on other types of reports

about friends. Children may be asked, for example, whether their friends would approve if the children drank beer. They may be asked whether their friends have ever offered them a cigarette. Measures of this type can be useful, but the burden of proof should be on the researchers to demonstrate that the measures are valid. For example, are children's reports of their friends' approval of drinking beer strongly correlated with the friends' reports of their attitudes toward drinking? Are children's reports of cigarette offers from friends strongly correlated with the friends' reports of offering cigarettes to them? Without this evidence, a plausible argument can be made that the so-called friends' measures are actually proxy measures of the children's own attitudes and behaviors. Thus, the recommendation for future research is:

> Research recommendation: Only use children's reports on friends to judge the friends' characteristics when the validity of those reports can be demonstrated.

Although the available data suggest that children's reports on friends have serious limitations, researchers may in the future find ways to overcome those limitations. To begin with, researchers may devise questions that call for less inference by children. If the topic is cigarette smoking, for example, children might be asked specific questions about each of their close friends (e.g., "Have you ever seen Susie smoke a cigarette?" "Do you know if she smokes cigarettes regularly, at least once a day?")

Researchers might also argue that some reports on friends provide important data in themselves, because they indicate children's perceptions of the norms in their friendship groups. A convincing argument of this sort probably could be made, if it was linked to a conceptual framework that clarified the significance of perceptions of friends' norms. For example, we noted earlier that changing adolescents' perceptions of their peers' drug use can contribute to a decrease in their own use of drugs (Cook *et al.*, 1993). Researchers evaluating other interventions might, therefore, want to ask children to report on their friends' characteristics even if those reports are known to be inaccurate.

3. *How Strong Is Friends' Influence?*

To summarize the preceding sections, the strength of friends' influence is exaggerated whenever it is estimated by a correlation for friends' similarity at one time or by using children's reports on friends as measures of friends' characteristics. But when these methodological flaws are absent, how influential are friends? The results in Table I for measures based on the friends' self-reports might seem to answer that question. The small regression coefficients suggest that friends' influence is weak, but that it is stronger for disruptive behavior than for classroom involvement. Similar results have been found in other short-term longitudinal studies. For some measures in some studies (e.g., Tremblay, Masse, Vitaro, & Dobkin, 1995), the coefficients did not even reach statistical significance. Taken together, these findings suggest that the idea that friends have a powerful influence on children's behavior should be dismissed as a myth. This conclusion can be stated as follows:

> Truth: Friends' influence is modest and varies for different attitudes and behaviors.

Would it be sensible to go even further, and reject the hypothesis that friends have a significant influence on children's attitudes and behaviors? Probably not, for several reasons. First, as mentioned earlier, estimates of friends' influence from longitudinal studies only suggest how much friends influenced the changes in children's characteristics over the short period between times of measurement. Moreover, because some children must have ended old friendships and made new friends during that period, those estimates must certainly be too low.

Second, the atheoretical character of research on friends' influence was mentioned in connection with the issue of the direction of friends' influence, but it is equally relevant to the question of its strength. Children spend varying amounts of time with friends, but some spend hours with friends daily. Moreover, friendships normally last for months or years. Would any theory of social influence suggest that relationships of this kind would *not* have a significant influence on those involved? The answer is definitely no, so an argument that friends have little or no influence on children would simultaneously be an argument against all theories of social influence.

Even so, serious debates about the magnitude of friends' influence are heuristically valuable because they can point research in new directions. We have argued that the myth of powerful friends' influence should be replaced by the truth that influence is modest and *varies* for different attitudes and behaviors. Such variations have received much less attention than they deserve. Understanding these variations would certainly contribute to the refinement of theories of friends' influence. Moreover, that understanding would be extremely important in planning interventions to minimize the negative influence of friends on children. Therefore, we end this section with another recommendation for research:

> Research recommendation: Assess and try to understand the variations in the strength of friends' influence on different attitudes and behaviors.

D. MYTH: FRIENDS' INFLUENCE REACHES A PEAK IN MIDDLE ADOLESCENCE

Bronfenbrenner (1967, 1970) inaugurated modern research on peer influence when he developed a set of hypothetical dilemmas in which children were asked how they would respond if peers encouraged them to engage in antisocial behaviors such as cheating on a test. Bronfenbrenner's research was highly visible and provocative because he showed that adolescents in the United States were especially likely to choose the antisocial behaviors if they thought that their peers

would see their answers. By contrast, adolescents in the former Soviet Union were unlikely to choose those antisocial behaviors if they thought their peers would see their answers.

A few years later, Berndt (1979) adapted Bronfenbrenner's antisocial dilemmas and created new dilemmas involving both neutral and altruistic behaviors. One version of the dilemmas referred specifically to encouragement from close friends rather than from peers in general. When children and adolescents responded to the adapted and new dilemmas, choices of the alternatives supposedly encouraged by friends increased steadily between third and ninth grade and then decreased slightly by twelfth grade. Thus, conformity to peers seemed to peak in midadolescence.

This conclusion now seems highly doubtful. One reason for these doubts is that problems with the use of hypothetical dilemmas to measure conformity to peers are more apparent than they were in the late 1970s (Berndt, 1997, 1999a). First, *conformity* refers to shifts in children's attitudes or perceptions in the direction of some socially imposed norm (Hartup, 1970). When children respond to the hypothetical dilemmas, however, they need not change their attitudes or perceptions. They may, instead, simply report their willingness to join friends in the activities described. Second, during the long period since Bronfenbrenner's original publication on the antisocial dilemmas, no researcher has provided any evidence for the convergent validity of the dilemma measures. That is, no researcher has shown that responses to the dilemmas are correlated with measures of conformity to friends, or susceptibility to friends' influence, obtained using other methods.

The uncertain validity of the dilemma measures is of special concern because consistent age trends in susceptibility to friends' influence have not been found in other types of studies. In particular, longitudinal studies of friends' influence that included participants varying in age have yielded inconsistent results. Age changes in friends' influence were absent in one study of cigarette smoking and alcohol use by sixth, eighth, and tenth graders (Urberg, Degirmencioglu, & Pilgrim, 1997). In another study (Urberg *et al.*, 1990), friends' influence on cigarette smoking appeared to be greater at eighth grade than at eleventh grade. In a third study (Keenan, Loeber, Zhang, Stouthamer-Loeber, & Van Kammen, 1995), friends' delinquent behavior appeared to influence disruptive and delinquent behavior equally at fourth and seventh grades. Yet another study showed that friends' influence on adolescents' educational aspirations was greater at twelfth grade than at tenth grade (Hallinan & Williams, 1990).

This pattern of results defies explanation. The argument might be made that just as the strength of friends' influence varies for different attitudes and behaviors, so might the age changes in its strength. Moreover, plausible explanations for these variations are sometimes obvious. For example, friends' influence on adolescents' educational aspiration may increase between tenth and twelfth grade (Hallinan & Williams, 1990) because decisions about college are more salient to twelfth graders than to tenth graders. Friends may therefore talk more about college decisions and so have more influence on each other's decisions in twelfth grade than in tenth grade.

However, further research may show that age changes in friends' influence are not consistent even for different studies that focus on the same behavior. Already noted were two studies of friends' influence on adolescents' cigarette smoking done by the same research team that revealed different age trends (Urberg *et al.*, 1990, 1997). Moreover, decades of research on the related topic of conformity to peers have not revealed a consistent developmental trend for peer conformity (Berndt, 1999a). If additional longitudinal studies of friends' influence yield equally inconsistent results, researchers may be forced to abandon the hypothesis that the strength of friends' influence on specific attitudes and behaviors changes systematically as children move into and through adolescence.

Yet once again, referring to the idea of developmental changes in friends' influence as a hypothesis raises a question about the theory from which the hypothesis derives. Again, the answer is none. No theory of social influence includes specific hypotheses about developmental changes in susceptibility to friends' influence. Hypotheses about developmental changes in friends' influence might deserve consideration if future research reveals consistent age changes in friends' influence on specific attitudes or behaviors. Alternatively, hypotheses of this kind might be part of a new theory of friends' influence in childhood and adolescence. For now, though, the myth of a peak in friends' influence in middle adolescence must be replaced by the following negative conclusion:

Truth: Consistent age changes in the strength of friends' influence have not been found.

When developmental researchers do not find consistent age changes in some phenomenon, they often switch to the exploration of individual differences. Such a switch could greatly increase understanding of friends' influence because individual differences have been virtually ignored in previous research. In particular, researchers have not investigated which attributes of children make them most susceptible to friends' influence and which attributes make children most able to influence their friends. The practical significance of this type of research is obvious, but its theoretical significance is equally great.

A first step in this direction would be to connect theories and research on friends' influence with theories and research in two domains where individual differences have been a focus for generations: personality (Caspi, 1998) and intellectual abilities (Ferrari & Sternberg, 1998). For example, children who are relatively anxious and relatively unassertive may be especially susceptible to friends' influence. By contrast, children who are relatively outgoing may be especially able to influence their friends. In addition, children who are relatively intelligent might be low in susceptibility to influence attempts (see Wood & Stagner, 1994) while having a high ability to influence others.

Other hypotheses about the relations of personality traits and intelligence to individual differences in influence could easily be generated. Then measures of personality and intelligence could be included in longitudinal and experimental studies of friends' influence. The planning of this type of research may be challenging, but the goals of the research are easily specified in the following recommendation:

> Research recommendation: Assess which children are most susceptible to friends' influence and which children have the most influence on their friends.

III. Influences of Friendship Quality

Moving from questions about friends' influence to questions about the influences of friendships may seem simple, but it actually requires a radical change in perspective. Studies of friends' influence focus on individuals and their characteristics. Studies of the influences of friendships focus on the *relationships* between individuals. Even more striking is the difference in presuppositions about the outcomes of influence. The central question in research on friends' influence has been whether children's attitudes and behaviors are negatively affected by their interactions with friends. By contrast, the central question in research on friendships has been whether children's social and psychological adjustment are positively affected by having high-quality friendships. Consequently, when examining the influences of friendship the first issue to consider is how the quality of children's friendships should be defined and assessed.

A. MYTH: MEASURES OF POSITIVE FEATURES ARE ADEQUATE FOR JUDGING FRIENDSHIP QUALITY

The origins of research on friendship quality can be traced to the writings of Sullivan (1953) about preadolescent friendships. According to Sullivan, friendships first become close relationships in the years just before puberty. More specifically, in adolescence friends begin to share their most personal and private thoughts and feelings with one another. Sullivan labeled friendships characterized by this deep level of self-disclosure as intimate, and intimacy has since then been considered the hallmark of a high-quality friendship.

Later studies of children's ideas about friendships revealed that children consider other features of friendships besides intimacy as important (Berndt, 1986). Children consider prosocial behavior (e.g., helping, sharing) as a positive feature of friendship. Children expect friends to be loyal, for example, by sticking up for them when they are in an argument with other peers. Children expect friends to be faithful, not to leave them for someone else or to have a party and not invite them.

The positive features of good friendships overlap greatly with the features of relationships emphasized in theories of social support (Berndt, 1989; Uchino, Uno, & Holt-Lunstad, 1999). Those theories emphasize the contributions of close relationships to the enhancement of self-esteem. In particular, friendships foster self-esteem when the friends praise one another for their accomplishments and encourage one another when they are feeling bad about themselves.

Several teams of researchers have devised interviews or questionnaires to assess the positive features of children's friendships (see Furman, 1996). For example, to assess a friendship's intimacy, children are asked, "When something is bothering you, how often do you talk to [friend's name] about it?" To assess prosocial behavior, children are asked, "How often does [friend's name] help you when you can't do something by yourself?" To assess self-esteem support, children are asked, "When you think you are not doing well in school, sports, or something else, how often does [friend's name] make you feel better about yourself?"

Children who describe a friendship as higher in one positive feature such as intimacy usually describe the friendship as higher in other positive features as well (Berndt & Perry, 1986). Therefore, children's reports on all positive features can be combined into a single measure of positive friendship quality. Such a measure can also be defined as showing the degree to which a friendship is a supportive relationship.

Friendship researchers initially ignored or gave little attention to negative interactions with friends. The implicit assumption seemed to be that children's best friendships must differ only in how positive they are, because children would end friendships that had negative features. That assumption must be placed in the category of myth. Two types of negative interactions commonly occur between friends; those types of interactions define two negative features of friendships.

First, children understand that disagreement, arguments, and other kinds of conflicts can occur between friends (Berndt, 1986). Children mention the existence of conflicts between friends when asked about friendship in the abstract. Children also talk openly about the conflicts in their own friendships. For example, some children say that they and their friends often "get into arguments" or "annoy and bug each other."

Second, children understand that friendships are not always marked by the equality and mutual respect that Piaget (1932/1965) believed was found in all peer relationships. On the contrary, friendships may involve frequent struggles over dominance. Children sometimes say that a friend tries to boss them around or to insist that they do what the friend wants them to do. Friendships may also be high in unpleasant forms of competition and rivalry. Children say that some friends try to show off their superiority to them or the friends brag about doing something better than they do. Dominance struggles, unpleasant competition, and rivalry can be described collectively as signs of inequality in a friendship.

Most children who report more frequent conflicts with a friend also describe that friendship as higher in the signs of inequality. Thus, reports of conflicts and inequality can be combined into a measure of negative friendship quality. Such a measure could also be defined as showing the degree to which a friendship is a source of interpersonal stress.

Friendships higher in negative features tend to be lower in positive features, but this correlation is fairly weak (see Berndt & Keefe, 1995). The weak correlation indicates that positive and negative features of friendships should be examined separately. This conclusion can be stated as follows:

> Truth: Measures of both positive and negative features are needed to assess friendship quality.

B. MYTH: HAVING HIGH-QUALITY FRIENDSHIPS ENHANCES CHILDREN'S SELF-ESTEEM

Sullivan's (1953) hypothesis that high-quality friendships enchance children's self-esteem has been endorsed by many researchers, including those who view friendships as supportive relationships (Uchino *et al.*, 1999). Evidence consistent with the hypothesis has been obtained in many correlational studies (Berndt & Savin-Williams, 1993; Hartup, 1993). Moreover, children whose friendships are higher in positive features and lower in negative features usually are higher not only in self-esteem but also in social, psychological, and academic adjustment.

Illustrative data from a longitudinal study of seventh and eighth graders are shown in Table II. The measures of friendship quality were derived from students' reports on the features of three best friendships. Students whose friendships were higher in positive features and lower in negative features were higher in classroom

TABLE II

Correlations of the Positive and Negative Features of Multiple Friendships with Measures of Students' Adjustment in the Fall and in the Spring of a School Year

	Positive features		Negative features	
Adjustment measure	Fall	Spring	Fall	Spring
Self-reported involvement	.24***	.24***	−.11*	−.17**
Self-reported disruption	−.06	−.08	.29***	.28***
Global self-worth	.16**	.18***	−.27***	−.20***

Note: The correlations for the students' classroom involvement and disruption were reported by Berndt and Keefe (1995); those for the students' global self-worth were reported by Keefe and Berndt (1996).

*$p < .05$. **$p < .01$. ***$p < 001$.

involvement and in global self-worth in the fall and the spring of the school year. Students whose friendships were higher in negative features were also higher in disruptive behavior. None of the correlations are strong, however, and the correlations of positive features of friendship with global self-worth are surprisingly weak.

Because the study had a longitudinal design, whether high-quality friendships contributed to positive changes in students' involvement, disruption, or self-worth could also be evaluated. Specifically, each of the measures of involvement, disruption, and self-worth in the spring of the year was the criterion in a separate hierarchical regression analysis with the corresponding fall measure as the first predictor. As discussed earlier, this order of entry controls for the continuity in students' characteristics over time. At the next step in the analysis, either the measure of positive features or the measure of negative features was entered. If those measures added significantly to the prediction of the criterion, they were assumed to influence the changes over time in students' characteristics.

The results of the regression analyses were both surprising and definitive (Berndt & Keefe, 1995; Keefe & Berndt, 1996). The measure of the positive features of students' friendship was not a significant predictor of the changes during the year in students' global self-worth or, for that matter, involvement and disruption. Indeed, the regression coefficient for positive features as a predictor of changes in global self-worth was .00 (Berndt, 1996). Comparable analyses in two other longitudinal studies also yielded nonsignificant results (Berndt, Hawkins, & Jiao, 1999; Hirsch & DuBois, 1991). Moreover, the three longitudinal studies included different measures of friendship quality, so the null results cannot be attributed to the flaws of a single measure. Given these consistent findings, the hypothesis that supportive friendships enhance children's self-esteem should probably be relegated to the category of a myth rather than a truth about the effects of friendship quality.

If the hypothesis about the contributions of positive friendship features to children's self-esteem is rejected, the question about how the quality of children's friendships influences their adjustment must be reconsidered. Because the dominant theories of friendship quality have emphasized the self-esteem hypothesis, they provide little guidance on this question, but research findings suggest two possibilities.

First, children who have friendships high in positive features may be more able to form positive relationships with other peers. Kindergarten children in one study who viewed their friends as more helpful and supportive in the middle of the school year gave more positive reports on their classmates' behavior toward them as the year progressed (Ladd, Kochenderfer, & Coleman, 1996). In another study (Berndt *et al.*, 1999), sixth graders in elementary school who viewed their friendship as having more positive features adjusted better, socially, after the move to seventh grade in junior high school if they kept most of their old friendships after the move. More specifically, classmates judged students as increasing in their sociability

and leadership after the transition if they had high-quality friendships that were generally stable.

Apparently, students who have a few high-quality friendships are able, if they maintain those friendships, to develop better relationships with the rest of their classmates. High-quality friendships seem to provide children with a small social circle that makes them feel they belong in a new school environment. If that circle remains intaet, it can easily widen to include more classmates. As the circle widens, the children maintain the distinction between best friends and other classmates, but they increasingly view their other classmates as helpful (Ladd *et al.*, 1996). The other classmates, in turn, increasingly view them as sociable and as socially skilled (Berndt *et al.*, 1999). In this way, success in the small social world of a friendship group contributes to success in the larger social world of a classroom or an entire school.

Second, having friendships high in negative features may negatively affect children's social behavior toward other peers and adults. The seventh and eighth graders in one study described earlier (Berndt & Keefe, 1995) increased in self-reported disruptive behavior during a school year if their friendships in the fall had more negative features. This effect suggests that conflicts, dominance struggles, and rivalry among friends spill over to affect students' social behavior toward other classmates and teachers. But even more alarming, the effect of the negative features of friendship was qualified by a significant interaction with positive friendship features. Among students whose friendships were relatively low in positive features, variations in negative friendship features were unrelated to the changes over time in disruptive behavior. These friendships apparently were not very close and so were not very influential.

By contrast, among students whose friendships were relatively high in positive features, variations in negative friendship features were strongly related to increases over time in disruptive behavior. In these elose and rewarding friendships, students apparently have many opportunities to learn and practice a repertoire of social behaviors with their friends. When that repertoire is heavily weighted toward conflicts, dominance, and rivalry, the consequences for the students' social interactions with other people are especially negative. Rather than being confined to their interactions with their friends, their negative social repertoire spills over to their interactions with other peers and with adults.

Given the practical importance of students' disruptive behavior, more research on how this behavior is influeneed by children's relationships with their friends is greatly needed. This statement, in more general form, becomes the next recommendation for future research:

> Research recommendation: Examine the separate and combined effects of positive and negative friendship features.

As noted earlier, few studies have included independent measures of positive friendship features and negative friendship features. Even fewer have examined

the possible interactions between the two. Of course, strong conclusions cannot be drawn from the single significant interaction reported by Berndt and Keefe (1995). Nevertheless, interactions of this type cannot be discovered unless researchers assess both positive and negative friendship features, and analyze their separate and combined effects, when studying the influences of friendship quality.

IV. Influences of Friends' Characteristics in Friendships Differing in Quality

Most researchers interested in the first pathway of friends' influence—the influence of friends' characteristics—have said little or nothing about the quality of the relationships among those friends. Conversely, most researchers interested in the second pathway of friends' influence—the influence of friendship quality—have said nothing about the characteristics of the children who are friends. The separation between the two lines of research reflects their focus on different questions and their origins in different theoretical traditions.

One consequence of the separation is that few researchers have tried to test hypotheses about interactions between the two influence pathways. That is, few researchers have tried to determine whether the influences of friends with certain characteristics are different when those friendships differ in quality. As a result, no strong assumptions about such interactions are found in the literature. In one sense, that is good news, because it implies that no myths about these interactions are being presented as truths in the absence of supporting data. In another sense, the lack of attention to interactions between influence pathways is bad news, because it means that stating what is true about those interactions is not yet possible.

Some hypotheses about interactions between the influence pathways are part of prominent theories of social influence and social behavior. The central hypothesis in one theory of delinquent behavior is that adolescents who spend more time with delinquent friends are more likely to commit delinquent acts. A secondary hypothesis is that the negative effect of association with delinquent friends is stronger when adolescents have more positive relationships with those friends (Agnew, 1991). In other words, the influence of the friends' delinquent behavior is magnified when their friendships are higher in quality.

Similarly, social learning theory (Bandura, 1977) includes the hypothesis that children learn more from observing a model's behavior if they have a positive relationship with the model. Therefore, observational learning from a friend should be enhanced when children view that friendship as having more positive features. A related hypothesis drawn from sociological theories of influence is that friends are more influential when their friendships are based on greater trust in one another (Hallinan & Williams, 1990). Trust is closely linked to intimacy, because children are only willing to share intimate information about themselves with close friends

whom they trust. Therefore, this theory also implies that the influences of friends and friendships interact.

Stated more generally, all of these theories imply that the influence of friends is magnified when those friendships are higher in quality. For ease of reference, an interaction between the two influence pathways that takes this specific form can be defined as supporting the *magnification hypothesis*.

The magnification hypothesis may seem like common sense, but it is controversial and has been challenged. In particular, theories that focus on social support in close relationships typically include the assumption that support from friends is beneficial regardless of the characteristics of those friends (Berndt, 1989). Similarly, one prominent theory of juvenile delinquency includes the assumption that adolescents who are more strongly attached to a group of friends will be less delinquent, regardless of how delinquent those friends are (Hirschi, 1971). For this reason, evidence for the magnification hypothesis would bolster some theories of social influence while lessening support for others.

Besides their theoretical significance, questions about the influences of friends' characteristics when friendships differ in quality are of great practical significance. Consider a plan for an intervention with adolescents who are at high risk of dropping out of high school. Suppose that the intervention includes enjoyable activities for small groups of these adolescents, and one result of these activities is that the adolescents in each group become good friends with one another. Are those good friendships desirable or undesirable?

The findings of two such interventions suggest that those friendships must be viewed as problematic at best (Catterall, 1987; Hymel, Comfort, Schonert-Reichl, & McDougall, 1996). In both interventions, the dropout rate was higher for participating students than for students in a control condition. Further analyses suggested that the interventions brought together students who were alienated from school and the groups' activities did not change their attitudes substantially or permanently. After the interventions ended, students returned to the regular school program, and some of them decided to drop out of school. When they reported their decisions to their new friends, most of them also decided to drop out. Thus, the interventions increased the influence of dropout-prone students on other students by facilitating the formation of friendships among those students.

Other interventions have been implemented with the goal of reducing the antisocial and delinquent behavior of high-risk adolescents (Dishion *et al.*, 1999). Some of these adolescents were placed in groups and given opportunities for frequent interactions with one another, either in brief training sessions or during a summer camp. Unfortunately, adolescents in these groups displayed a higher level of antisocial and delinquent behavior after the interventions than did adolescents in control groups. Again, the formation of friendships among adolescents who already were on a deviant developmental trajectory seemed to be the best explanation for the harmful effects of interactions that were intended to be helpful.

The findings of these interventions could be interpreted as providing support for the magnification hypothesis, but that conclusion would be premature. Some interventions that have brought together children or adolescents who have problems in social or psychological adjustment have had positive outcomes (see Dishion *et al.*, 1999). That is, these interventions have been successful in increasing the participants' social or psychological adjustment, even though they also created opportunities for forming friendships with other participants who had problems in adjustment.

Moreover, none of the intervention programs really tested the magnification hypothesis because none included measures of friendship quality. Only a few studies have included measures of both friendship quality and friends' characteristics, and those few have yielded mixed results. In one study (Agnew, 1991), adolescents whose friends engaged in more serious forms of delinquent behavior increased over time in seriously delinquent behavior if they were closely attached to those friends. However, comparable results were not found for a measure of minor delinquent behaviors.

In studies with more standard measures of friendship quality, evidence for the hypothesis is even weaker. Berndt and Keefe (1995) did not discuss interactions between the influences of friends' characteristics and friendship quality because very few were significant and those could be attributed to chance. Berndt, Hawkins, and Jiao (1999) reported one interaction that might have supported the magnification hypothesis, but tests done to decompose that interaction were inconclusive. Poulin, Dishion, and Haas (1999) also reported that interactions between measures of friends' characteristics and friendship quality were nonsignificant.

Nevertheless, the evidence that peer-oriented intervention programs sometimes have negative effects on adolescents' behavior cannot be ignored. At a minimum, further research is needed to clarify the explanation for those effects. More generally, additional research on the magnification hypothesis would be valuable. Stated more formally:

> Research recommendation: Interactions between the influences of friends' characteristics and friendship quality should be systematically explored.

Interactions between friends' characteristics and friendship quality need not take the form specified by the magnification hypothesis. In the study described earlier of the transition to junior high school (Berndt *et al.*, 1999), an interaction between friends' characteristics and friendship quality was found for a measure of students' shyness and social withdrawal as rated by classmates. When classmates viewed a student's friends in sixth grade as high in shyness and withdrawal, the student's shyness and withdrawal increased significantly after the transition, but only if those friendships were low or average in quality. Students who had high-quality friendships in sixth grade did not become more shy and withdrawn over time, even if their sixth-grade friends were shy and withdrawn.

This result is paradoxical because a straightforward reading of social learning theory would suggest exactly the opposite. The students' classmates judged their shyness and withdrawal from their pattern of social behavior. Friends could observe this pattern of social behavior as easily as other classmates could. Consistent with the magnification hypothesis, greater imitation of the friends' pattern of social behavior might have been expected when students had higher quality relationships with those friends.

The results for shyness and withdrawal can be more plausibly explained by referring to hypotheses about the protective effects of supportive relationships (Berndt, 1989). The most important benefit of good friendships may be to make students feel comfortable and secure in the school environment. Students may receive this benefit even if those friends are shy and withdrawn themselves. Therefore, the students who had good friendships with shy, withdrawn friends felt no inclination to adopt their friends' profile of social behavior. By contrast, students who did not have good friendships may have felt lost, socially, in the new school. Lacking the sense of security that good friendships can provide, those students became more shy and withdrawn.

This explanation is obviously speculative but nonetheless important. It illustrates that future studies of the influences of friends and friendships have the potential to challenge, refine, and extend major theories of social development. It also illustrates the limitations of research that provides data only on the influences of friends' characteristics or only on the influences of friendship quality. Conclusions about either one will be misleading if the two types of influences interact.

V. Conclusions and Implications

Understanding of the influences of friends and friendships has increased dramatically since theorists such as Sullivan (1953) and researchers such as Bronfenbrenner (1967, 1970) brought attention to these phenomena. Research has exposed many myths and revealed some truths about these influences. The most important of those myths and truths deserve to be restated because they have broader implications for the field of child development. Those implications relate to theories, research methods, and intriguing parallels between friendship research on parent–child relationships.

The influences of friends and friendships can be understood best by distinguishing between two pathways of friends' influence (Berndt, 1992, 1999b). One pathway is through the attitudes, behavior, and other characteristics of friends. The widespread belief that friends' influence through this pathway is predominantly negative, especially in adolescence, has been shown conclusively to be a myth. Friends can have either a positive influence or a negative influence on children and adolescents, depending on whether the friends' own characteristics are positive or

negative. For example, children with friends who are disruptive in school are likely over time to become more disruptive themselves, but children with friends who are well behaved in school are likely to behave better over time. Stated more generally, friends' influence in nearly all cases makes children's attitudes and behaviors more similar to the attitudes and behaviors of their friends.

One reason for the persistence of the myth of negative friends' influence is that research in this area has been theoretically weak. Indeed, much of the research has been completely atheoretical, guided by popular beliefs about adolescents or by mere extensions of previous studies. Several theories of social influence have been the foundation for experimental studies of peers' contributions to children's socialization (Hartup, 1970, 1983), but those theories have rarely been the foundation for research on friends' influence. For further advances in understanding of friends' influence, research must be theoretically grounded and designed to contribute to the testing and refinement of general theories of social influence.

Yet even in its current state, research on the influences of friends' characteristics raises intriguing issues for all child-development researchers. One issue deals with a dramatic contrast between the usual frameworks for investigating friends' influence and the most prominent theories of parents' influence. Theories of parents' influence focus almost exclusively on parent–child relationships and on parents' direct and indirect training of their children (e.g., Maccoby & Martin, 1983; Parke & Buriel, 1998). These general theories rarely emphasize how parents' characteristics might influence their children's behavior and development.

For example, when trying to explain students' disruptive behavior, parenting researchers would likely focus on how parents interact with and discipline their children, how parents instruct their children about appropriate social behavior, and how parents manage their children's social interactions with peers (Parke & Buriel, 1998). But what about the parents' own disruptive behavior toward other people, either in the home or in other settings where their children can observe their behavior? The idea that children take their parents as models for their own behavior is not novel (see, e.g., Bandura & Walters, 1959), but this idea has not received much attention over the years. One implication of the research of friends' influence is that revising theories of parenting to include hypotheses about the model that parents provide for their children, even when not interacting with their children, would be worthwhile.

Research on the influence of friends' characteristics has also shown conclusively that social pressure is not the primary process by which friends influence children. Children who are close friends rarely put pressure on one another, and they are often ineffective in changing one another's decisions or behavior when they do so. More important for influence among friends are social reinforcement, observational learning, and rational discussion based on information exchange.

The myth of strong peer pressure has endured partly because researchers have often used methods that assume its existence. Starting with Bronfenbrenner (1967),

researchers have asked children to respond to hypothetical dilemmas in which friends or other peers were said to pressure them to do something they did not want to do. In other studies (e.g., Clasen & Brown, 1985), researchers directly asked children how much pressure to engage in certain behaviors or activities they received from friends. To obtain a more accurate picture of influence processes among friends, we recommend that researchers conduct systematic observations of friends' interactions in natural settings. We also recommend that researchers conduct experimental studies of friends' discussions, because that method allows researchers to examine the processes and outcomes of friends' influence simultaneously.

The data already available on influence processes among friends are surprisingly comparable to data obtained in research on parental influence (Maccoby & Martin, 1983). For example, just as children are often ineffective when they try to change their friends' behavior by applying coercive pressure, parents are often ineffective when they try to change their children's behavior by using power-assertive discipline. Similarly, the effectiveness of rational arguments in changing children's opinions during discussions with friends is analogous to the effectiveness of parenting practices that emphasize reasoning or inductive discipline.

These parallels between the techniques that friends and parents use when attempting to change children's behavior are intriguing and suggest many questions for future research. One obvious question is whether influence techniques are learned at home. That is, do children who are trying to influence their friends mainly use the influence techniques that their parents most often adopted when trying to influence them?

In addition, research has shown that the power that friends have to influence children's attitudes and behaviors has often been exaggerated. One reason for the persistence of the myth of powerful friends' influence is that many researchers have estimated friends' influence from the similarity at one time between children's characteristics and their friends' characteristics. These researchers ignored the reality that friends' similarity on many characteristics is due partly to children's selection of friends to whom they are already similar.

An analogous problem has existed for decades in research on parents' influence. That is, many researchers have tried to determine the influence of parents on their children's behavior and adjustment by correlating measures of parents' practiees with measures of their children's characteristics. The problem with this method is not that of selection—children do not choose their parents and parents do not exactly choose their children—but measures of parents' practices and of children's characteristics could be correlated because of the *genetic* similarity between parents and their children. Prominent critics of parenting research have argued that such parent–child correlations can be better explained by the transmission of genes from parent to child than by social influence of parents on children (e.g., Harris, 1998; Scarr, 1992).

In response to these criticisms, parenting researchers have emphasized the evidence for parental influence from studies that did not have correlational designs (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000). Specifically, these researchers have pointed to evidence on parents' influence from studies with longitudinal or experimental designs. We also argued that those designs have provided the best evidence on how and how much friends' influence children's behavior. These parallels illustrate that researchers who study friends' influence and parents' influence are partners in the debate against researchers who assert that children's development is not greatly influenced by any of the people with whom they have close personal relationships.

A shift in focus to the second influence pathway, the influence of the quality of children's friendships, reveals a different set of myths and truths. The best-known hypothesis about friendship quality is that it enhances children's self-esteem. In several longitudinal studies, however, having high-quality friendships was not associated with improvements over time in children's self-esteem. Findings from those and other studies did suggest that having friendships high in positive features helps children form better relationships with other peers and so enhances their success in the peer social world.

Friendships high in negative features (e.g., conflicts, dominance, and unpleasant rivalry) appear to increase children's negative behaviors toward other peers and teachers. This negative effect is most evident when friendships are also high in positive features. Apparently, practicing a repertoire of negative social behaviors during interactions with close friends has a negative influence on children's interactions with other people as well.

These conclusions must be considered tentative because only a few studies of the effects of friendship quality have been reported. The conclusions should also be considered tentative because they cannot be linked either to a specific theory of the effects of friendships or to a general theory of the effects of close relationships. Such a general theory might be formulated by linking data on the effects of friendship quality to data on the effects of other relationships, particularly relationships with parents.

For example, effects comparable to the spillover from negative behavior with friends to negative behavior toward other people have been shown to occur in parent–child relationships. In particular, children who regularly practice a repertoire of coercive behavior when interacting with parents increasingly display coercive behavior toward classmates and teachers at school as well (Patterson, Reid, & Dishion, 1992). Moreover, the learning of this coercive repertoire is governed by principles of reinforcement that may be applicable to all close relationships.

In other respects, the influenees of parents on their children may be qualitatively different from the influences of friends and friendships on children. In working toward a general theory of the influence of close relationships, the goal would not be to prove that all types of relationships have the same types of effects. Rather,

the goal would be to increase understanding of each important type of relationship by describing both how it is similar and how it is different from other types.

Finally, a general theory of the influence of close relationships must account for interactions between different pathways of influence. These interactions may take various forms, but the greatest attention has focused thus far on the hypothesis that the influence of a friend's characteristics is magnified when that friendship is higher in quality. This magnification hypothesis is included in several but not all theories of social influence. The hypothesis is practically significant because it implies that interventions to improve the quality of the friendships among children with negative characteristics (i.e., children high in antisocial behavior) will have harmful rather than beneficial effects on the children's behavior and adjustment.

In theory, the magnification hypothesis is as applicable to parent–child relationships as to friendships. Many parenting researchers would readily accept the positive version of the hypothesis. That is, they assume that parents' efforts to model positive social behaviors are most effective when the parents also are warm and supportive of their children (Maccoby & Martin, 1983). But what about the negative version of the hypothesis? What about parents whose behavior is as socially undesirable as that of delinquent adolescents? Do parents who engage in violent or criminal behaviors have an especially negative influence on their children's behavior when they are also warm and supportive of their children?

No answer to these questions can be given until much more research is done. Even as applied to friends and friendships, evidence relevant to the magnification hypothesis is limited and inconsistent. Researchers who have examined the influence of friends' characteristics have rarely assessed the quality of those friendships, and researchers who have examined the influence of friendship quality have rarely assessed the characteristics of the friends. With respect to parent–child relationships, the evidence on the magnification hypothesis is even more limited.

Nonetheless, the significance of the hypothesis is extremely clear. If the hypothesis is disconfirmed by future research either on friendships or on parent–child relationships, major theories of social influence will need to be substantially revised. If the hypothesis is confirmed for either type of relationship, many social programs will need to be reconsidered. If the negative influences of friends are magnified when those friendships are high in quality, programs that bring together high-risk youth with the aims of preventing negative outcomes (e.g., delinquency, school dropout) will need to be reevaluated (Dishion *et al.*, 1999). If negative effects of parents' characteristics are magnified when parent–child relationships are warmer and more supportive, programs of parent training may need to focus not only on improving parents' techniques for interacting with their children but also on ensuring that the parents are models of positive social behavior for their children.

In sum, research on the influences of friends and friendships has begun to yield important information about how friends affect children's attitudes and behaviors. But this research has broader implications and intriguing connections with research

on other close relationships, particularly those between parents and children. These connections may provide the starting points for a general theory of the influence of close relationships on children's development. Such a theory could, in turn, provide a basis for interventions designed to enhance children's development.

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