Published in final edited form as:

J Abnorm Psychol. 2012 February ; 121(1): 88–94. doi:10.1037/a0024707.

Friend Influence over Adolescent Problem Behaviors as a Function of Relative Peer Acceptance: To be Liked is to be Emulated

Brett Laursen,
Florida Atlantic University

Christopher A. Hafen,
University of Virginia

Margaret Kerr, and
Örebro University

Håkin Stattin
Örebro University

Abstract

Friend influence over alcohol intoxication and delinquent behavior was examined as a function of relative peer acceptance in a 3-year study of Swedish youth ($N=184$ girls, 145 boys). Participants were in the 1st year of secondary school (7th grade, $M=11.7$ years old) or the 1st year of high school (10th grade, $M=15.3$ years old) at the outset. Friends resembled one another before the friendship; resemblances were even greater after the friendship began. Resemblances continued to grow among those who remained friends one year later, but declined among those whose friendships dissolved. Partners were not equally responsible for increases in similarity. In stable friendships, the more accepted partner exerted greater influence over the less accepted partner, such that the greatest increases in problem behaviors were found among less accepted youth whose friends had higher initial levels of delinquency and alcohol intoxication. Unstable friends resembled random pairs of youth in that more and less accepted partners were comparably uninfluential.

Parents and mental health professionals worry about the untoward influence of friends, especially during adolescence when adult supervision declines. Friends grow similar in domains such as binge drinking (Urberg, Luo, Pilgrinm, & Değirmencioğlu, 2003), delinquency (Vitaro, Brendgen, & Trembley, 2000), and depression (Stevens & Prinstein, 2005), but influence (also known as socialization) is difficult to document because reports from friends are not independent. As a consequence, little is known about each partner's relative influence. We examine the proposition that friend influence over problem behaviors varies as a function of peer acceptance. The relatively more accepted and the relatively less accepted member of each friend dyad were identified from peer nomination scores. Self-reports of intoxication frequency and delinquency were used to determine whether the initial

Brett Laursen, Department of Psychology, Florida Atlantic University, 3200 College Avenue, Fort Lauderdale FL 33314, USA.
laursen@fau.edu.

Publisher's Disclaimer: The following manuscript is the final accepted manuscript. It has not been subjected to the final copyediting, fact-checking, and proofreading required for formal publication. It is not the definitive, publisher-authenticated version. The American Psychological Association and its Council of Editors disclaim any responsibility or liabilities for errors or omissions of this manuscript version, any version derived from this manuscript by NIH, or other third parties. The published version is available at www.apa.org/pubs/journals/abn

behaviors of more and less accepted youth anticipated changes in the subsequent behaviors of partners, during the formation of the friendship and afterward. Patterns of influence among those who remained friends from one year to the next (stable friends) were contrasted with those who did not (unstable friends).

Our study addresses a question that is central to understanding how friends shape the acquisition of problem behaviors: Who influences whom? Peer acceptance, the degree to which a child is liked by others and chosen as an affiliate, features prominently in this debate. Some argue that greater influence is accorded to the partner with higher standing in the peer group. Reasoned action theory holds that high status individuals are influential because they establish, model, and enforce social norms (Fishbein & Azjen, 2010). Acceptance is tied to leadership and perceived popularity (Asher & McDonald, 2009), markers of dominance in group settings that may translate into influence in dyadic settings. Thus, better accepted friends may exact behavioral change from lesser accepted friends through pressure to conform. Interdependence theory holds that influence is accorded to the partner with the least investment in the relationship (Rusbult & Buunk, 1993). Better accepted partners participate in more friendships, lowering the cost of dissolving an affiliation with lesser accepted partners, who have fewer relationship options and more incentive to comply. Social skills and a rewarding demeanor may heighten the influence of better accepted friends. The opposing view argues that better accepted partners are more susceptible to influence. The popularity-socialization hypothesis holds that high accepted adolescents are especially sensitive to group norms (Allen et al., 2005). As a consequence, better accepted partners alter behaviors to preserve their status, particularly when it comes to mildly deviant activities that many consider normative, such as alcohol consumption. High accepted youth may also tend to be empathetic and inclined to accommodate the wishes of friends.

Assumptions that equate relative acceptance with relative influence rest on a thin empirical base. Experimental findings indicate that high status confederates are more successful than low status confederates in getting adolescent boys to condone deviance (Cohen & Prinstein, 2006), but no studies have determined the degree to which changes in friend similarity can be traced to the initial behaviors of more and less accepted partners. The assumption that influence is a source of similarity in all friendships is not well-grounded either. Selection accounts for a good portion of homophily and stable friends are initially more similar than unstable friends (Kandel, 1978), but it is not clear how influence contributes to similarity because no studies have examined whether socialization differs for stable and unstable friends after accounting for selection effects. The dearth of research on friend influence is not surprising. Traditional analytic techniques are not well suited for this line of inquiry, because correlated data from partners violate assumptions of independence and bias statistical tests.

Designed for correlated dyadic data, the Actor-Partner Interdependence Model (APIM: Kenny, Kashy, & Cook, 2006) partitions variance shared across partners on the same variable from variance that uniquely describes associations within and between partners. The present study involves a longitudinal APIM (Popp, Laursen, Kerr, Stattin, & Burk, 2008) that estimates the influence that relatively more accepted partners and relatively less accepted partners have over one another during the establishment of a friendship (from Time 1 to Time 2) and after the establishment of a friendship (from Time 2 to Time 3), controlling for individual behavioral stability and concurrent dyadic similarity. Antecedent scores from one partner predict changes in another partner's score. Influence is implicit; alternative causal mechanisms cannot be ruled out.

We predicted that the magnitude and direction of influence would vary according to the attributes of the more influential partner, increasing for those with better accepted friends who report relatively more initial problems and leveling off or declining for those with better accepted friends who report relatively fewer initial problems. Socialization should be strongest in stable friendships; the unstable were expected to be uninfluential.

Method

Participants

The final sample of 346 participants was drawn from the *10 to 18 Project*, a longitudinal study of all students attending secondary school (7th – 9th grade) and high school (10th–12th grade) in a small city in Sweden. At the outset there were 103 girls and 98 boys in the 7th grade (range=11 to 13 years, $M=11.74$, $SD=0.89$) and 81 girls and 64 boys in the 10th grade (range=14 to 18 years, $M=15.34$, $SD=1.08$). Initially, 82% ($n=282$) of the participants lived with both biological parents, 9% ($n=31$) lived with one biological parent and one step-parent (or boyfriend/girlfriend), 8% ($n=28$) lived with a single biological parent, and 1% ($n=5$) lived with adoptive parents. Of these, 84% ($n=291$) had employed mothers and 96% ($n=332$) had employed fathers. About 2/3 of parents completed high school or vocational school; the remainder were divided between those with a university degree and those who did not complete high school. Ethnic Swedes comprised 88.7% ($n=307$) of the sample.

Instruments

Participants identified up to 3 important peers, defined as “someone you talk with, hang out with, and do things with.” Each was labeled friend, romantic partner, or sibling. Participants also nominated peer associates: up to 10 individuals with whom they spent time in school and up to 10 individuals with whom they spent time out of school. Important peers and peer associates could be older or younger, boys or girls, from the same school or a different school, but not parents or other adults.

Mutual friends were dyads with reciprocal concurrent important peer nominations labeled friendships. Mutual friendships were overwhelmingly same-sex, so we restricted our study to these relationships. In the primary analyses, we limited each participant to one friendship. Some were involved in more than one friendship at a time; nomination rankings were summed across dyads and the highest ranked reciprocal friends were selected (ties were resolved by giving preference to partners who would not otherwise be included). In the primary analyses, neither partner nominated the other as a friend or peer associate during the 7th or 10th grade. Therefore, no dyads were friends at the outset. Supplementary analyses were conducted that included all friendship dyads at each time point.

Nomination data yielded two categories of friendship. *Stable friends* ($n=40$ boys, 78 girls) reciprocated friendship nominations in the 8th and 9th grades or the 11th and 12th grades. *Unstable friends* ($n=122$ boys, 106 girls) reciprocated friendship nominations in the 8th or 11th grade only; neither partner nominated the other as a friend or peer associate in the 9th or 12th grade. When dyads whose friendship began prior to the 8th or 11th grade were included in the total, the ratio of stable to unstable friends resembles that in North American samples (e.g., Ellis & Zarbatany, 2007). Independent sample *t*-tests indicated that stable and unstable friend dyads did not differ on average age, peer acceptance, nomination rank, intoxication frequency, or delinquency. Repeated-measures ANOVAs found no changes over time and no differences between stable and unstable friends on within-dyad differences in acceptance. All participants in the study were also randomly paired with a nonaffiliate. *Nonfriend dyads* consisted of same-sex, same-grade participants in which neither partner nominated the other as an important peer or peer associate at any time.

Peer acceptance represented the sum of important peer and peer associate nominations received. Scores were standardized within schools. On the basis of peer acceptance scores, each partner in each friendship was classified as either relatively more accepted ($M=6.29$, $SD=2.27$) or relatively less accepted ($M=3.06$, $SD=1.70$). These classifications did not change over time. In all but 30 dyads, peer acceptance scores differed by at least .25 standard deviations (stable mutual friends $M=.44$ SD, unstable mutual friends $M=.51$, and nonfriend dyads $M=.48$ SD). ANOVAs and paired t -tests on age, initial delinquency, and initial intoxication frequency revealed neither main effects for relative acceptance nor interactions with friendship stability.

At each time point, participants also completed a problem behavior inventory with documented validity among Swedish youth (Magnusson, Dunér, & Zetterbloom, 1975). *Intoxication frequency* includes 3 items referring to alcohol consumption during the past month or year (e.g. *Have you drunk so much beer, liquor, or wine that you got drunk?*). Items were scored on a 1 (*no, it has not happened*) to 3 (*several times*) scale. *Delinquency* includes 18 items referring to deviant acts committed during the past year (e.g. *Have you shoplifted? Have you cut class? Have you taken part in a fight?*). Items were rated on a 1 (*no, it has not happened*) to 5 (*more than 10 times*) scale.

Procedure

Students were recruited in classrooms during school hours. They were informed that participation was voluntary and were assured that answers would not be shared with parents, teachers, or police. Parents were informed about the study through community and school meetings, and through the mail. Parents received a postage-paid card to return if they did not wish to have their child participate in the study and approximately 1% did so. Parents and students were informed that they were free to end participation in the study at any time.

Trained research assistants administered measures during regular school hours. Teachers were not present. Data were collected at annual intervals during the spring semester. Friendships are highly unstable during school transitions, so we restricted the primary analyses to students whose data spanned secondary school (7th-9th grades) or high school (10th-12th grades). There were 879 students with 3 waves of secondary or high school data. Of this total, 29.1% ($n=256$) were eliminated from the primary analyses because their friends were members of higher ranked mutual friend dyads. Another 29.3% ($n=257$) were eliminated from the primary analyses because their friendships began prior to the 8th or 11th grade. Supplemental analyses included all of these students. There were no sex, age, delinquency, intoxication frequency, or peer acceptance differences between those included in the primary analyses and those included in the supplemental analyses.

Plan of Analysis

Path analyses were conducted within a structural equation modeling framework. To determine the suitability of distinguishable dyad analyses, a χ^2 test of distinguishability (Kenny et al., 2006) constrained the variances, interpersonal correlations, and intrapersonal correlations to be equal for relatively more accepted and relatively less accepted friends. Significant χ^2 values revealed poor fit, indicating that friends should be distinguished on the basis of relative peer acceptance for both intoxication frequency, $\chi^2_{(10)}=31.43$, $p<.001$, and delinquency, $\chi^2_{(10)}=85.81$, $p<.001$.

Influence was modeled during the formation of the friendship (from Time 1 to Time 2) and after the formation of the friendship (from Time 2 to Time 3). A χ^2 difference test contrasted paths between partners and within partners over time. Multiple group analyses contrasted stable and unstable friendship dyads. The same pattern of results emerged when dyads

whose peer acceptance scores differed by less than .25 SD ($n=30$) were included or excluded. Additional multiple group analyses were conducted using sex and age group (secondary school and high school) as moderators. There were no statistically significant χ^2 differences, suggesting that the influence of more accepted partners and less accepted partners did not vary as a function of these variables.

Analyses of covariance (ANCOVA) determined whether the rate of change in problem behaviors differed for youth with better accepted friends who had relatively more problems and youth with better accepted friends who had relatively fewer problems.

Results

Preliminary Analyses

Repeated measures ANOVAs were conducted with relative peer acceptance (more accepted and less accepted), age group, and sex as independent variables. Intoxication frequency and delinquency increased over time (see Table 1). High school students ($M=2.02$, $SD=0.56$) reported more frequent intoxication than secondary school students ($M=1.40$, $SD=0.44$). Boys ($M=1.24$, $SD=0.22$) reported more delinquency than girls ($M=1.13$, $SD=0.16$). There were no main effects or interactions involving relative peer acceptance.

Similarity Analyses

Table 2 describes intraclass correlations in stable and unstable friendships. Partners resembled one another on intoxication frequency and delinquency before the start of their friendship. Correlations increased during each successive year in stable friendships. Correlations increased in unstable friendships, then declined after the friendship ended.

Influence Analyses

Intoxication frequency—Results for stable friends are depicted at the top of Figure 1. During the formation of the friendship, the more accepted friend's Time 1 intoxication frequency was positively associated with changes in the less accepted friend's Time 2 intoxication frequency ($\beta=.26$), but the less accepted friend did not influence the more accepted friend ($\beta=.11$). After the formation of the friendship, each friend's Time 2 intoxication frequency predicted changes in the other friend's Time 3 intoxication frequency (more accepted $\beta=.49$; less accepted $\beta=.23$). Increases in influence over intoxication frequency were significant for more accepted partners $\chi^2_{(1)}=4.01$, $p<.05$, but not less accepted partners. Influence paths did not differ during the formation of the friendship, but the more accepted friend had greater influence than the less accepted friend after the friendship was established, $\chi^2_{(1)}=4.18$, $p<.05$.

Stable friends were divided according to whether the more accepted friend reported relatively higher ($n=19$ at Time 1 and 23 at Time 2) or relatively lower ($n=24$ at Time 1 and 19 at Time 2) levels of alcohol intoxication. An ANCOVA was conducted with the less accepted friend's alcohol intoxication at the previous time point as the covariate. Differences emerged for changes in the less accepted friend's drinking during the establishment of the friendship, $F(1, 40)=4.61$, $p=.04$, and after the friendship was established, $F(1, 39)=8.22$, $p=.007$. In each case, the less accepted friend reported a greater increase in drinking when paired with a better accepted friend whose initial drinking was relatively higher (Time 1 $M=1.49$, $SD=.41$; Time 2 $M=1.85$, $SD=.74$; Time 3 $M=2.37$, $SD=.67$) than when paired with a better accepted friend whose initial drinking was relatively lower (Time 1 $M=1.56$, $SD=.54$; Time 2 $M=1.69$, $SD=.61$; Time 3 $M=2.03$, $SD=.79$).

Results for unstable friends are depicted at the bottom of Figure 1. Neither partner influenced the other (more accepted $\beta=.08$ and $.19$; less accepted $\beta=.12$ and $.06$). There were no changes over time in influence and the paths of more and less accepted friends did not differ.

Multiple groups contrasts revealed no differences between stable friends ($\beta=.26$ and $.11$) and unstable friends ($\beta=.08$ and $.12$) in influence paths from Time 1 to Time 2, but relatively more accepted stable friends ($\beta=.49$) had greater influence from Time 2 to Time 3 than relatively more accepted unstable friends ($\beta=.19$), $\chi^2_{(1)}=5.02$, $p<.05$.

Delinquency—Results for stable friends are depicted at the top of Figure 2. During the formation of the friendship, neither friend's Time 1 delinquency predicted the other friend's Time 2 delinquency (more accepted $\beta=.11$; less accepted $\beta=.11$). After the formation of the friendship, the relatively more accepted friend's Time 2 delinquency was positively associated with changes in the relatively less accepted friend's Time 3 delinquency at ($\beta=.54$), but the less accepted friend did not influence the more accepted friend ($\beta=.12$). Increases in influence over delinquency were significant for more accepted partners $\chi^2_{(1)}=5.61$, $p<.05$, but not less accepted partners. Influence paths did not differ during the formation of the friendship, but the more accepted friend had greater influence than the less accepted friend after the friendship was established, $\chi^2_{(1)}=9.87$, $p<.01$.

Stable friends were divided into two groups according to whether the more accepted friend reported relatively higher ($n=20$ at Time 1 and 23 at Time 2) or relatively lower ($n=27$ at Time 1 and 26 at Time 2) levels of delinquency. An ANCOVA was conducted with the less accepted friend's delinquency at the previous time point as the covariate. Differences emerged for changes in the less accepted friend's delinquency after the establishment of the friendship, $F(1, 46) = 10.11$, $p = .003$, but not during the establishment of the friendship, $F(1, 44)=0.25$, $p=.62$. After the friendship was established, less accepted friends reported an increase in delinquency when paired with better accepted friends whose initial delinquency was relatively higher (Time 2 $M=1.12$, $SD=.18$; Time 3 $M=1.36$, $SD=.36$); less accepted friends reported a decrease in delinquency when paired with better accepted friends whose initial delinquency was relatively lower (Time 2 $M=1.22$, $SD=.19$; Time 3 $M=1.16$, $SD=.23$).

Results for unstable friendships are depicted at the bottom of Figure 2. Neither partner influenced the other (more accepted $\beta=.19$ and $.12$; less accepted $\beta=.13$ and $.09$). There were no changes over time in influence and the paths of more and less accepted friends did not differ.

Multiple group contrasts failed to reveal differences between stable friends ($\beta=.11$ and $.11$) and unstable friends ($\beta=.19$ and $.13$) in influence paths from Time 1 to Time 2, but relatively more accepted stable friends ($\beta=.54$) were more influential than relatively more accepted unstable friends ($\beta=.12$) from Time 2 to Time 3, $\chi^2_{(1)}=5.32$, $p<.05$.

Nonfriend dyads—Analyses of nonfriends revealed no statistically significant influence effects (more accepted $\beta=.12$ to $.16$; less accepted $\beta=.07$ to $.15$). More accepted and less accepted nonfriends did not differ on influence.

Supplemental Analyses—The omission of participants whose friends were paired with other partners may bias the sample toward those with small peer networks. We reran analyses excluding dyads in which one or both partners had only one reciprocated friend at Time 2 ($n=10$ dyads). In addition, we reran analyses adding dyads previously excluded because one or both partners were in another friendship ($n=29$ dyads). The same pattern of statistically significant results emerged.

The omission of participants whose friendships spanned that transition from secondary school to high school and the omission of friendships that began prior to 8th or 11th grade may bias the sample toward those with less stable relationships. We reran analyses adding friendships that were omitted because they began in the 9th grade ($n=58$ dyads) and those that were stable from 7th to 9th grade or from 10th to 12th grade ($n=134$ dyads). Both exhibited patterns of influence similar to stable friendships that began in the 8th or 11th grade.

Previously, we reported that older friends were more influential than younger friends (Popp et al., 2008). A multiple group model indicated that relative age did not moderate findings for relative acceptance.

A final set of analyses determined whether differences in the influence of more and less accepted friends were a function of absolute levels of individual acceptance. Differences in influence remained after controlling for the peer acceptance scores of each partner at each time.

Discussion

The findings are consistent with the notion that greater influence is accorded to the better accepted member of a friend dyad. But there was an important caveat: Friend influence over alcohol intoxication and delinquency was evident only within stable relationships. Unstable friends resembled random pairings of same-sex peers in that neither partner influenced the other at any time point. This suggests that prior research may have underestimated the peak magnitude of friend influence (e.g., Dishion et al., 1996; Vitaro et al., 2000), conflating influential stable relationships with uninfluential unstable relationships, and averaging the effects of influential higher accepted partners with those of minimally influential lower accepted partners. It also suggests that the ability to influence (or the willingness to be influenced) may promote relationship longevity.

More accepted partners seem to control the rate at which less accepted partners acquire problem behaviors. Drinking and delinquency increased fastest for those with better accepted friends who had relatively more initial problems. We know that children with problem behaviors tend to select one another as friends and we know that deviance training is fostered by rewarding conversations about antisocial behavior with delinquent peers (Dishion, Spracklen, Andrews, & Patterson, 1996). We do not know whether these conversational roles vary as a function of relative acceptance. Higher status youth may raise deviant topics more frequently (suggesting influence via modeling) or they may reward deviant talk more readily (suggesting influence via reinforcement). Or they may do both. Perhaps of equal importance is the finding that better accepted friends with relatively fewer problems slowed the rate of increase in their less accepted friend's alcohol consumption and lowered their subsequent delinquency. Considerable attention has been given to the proposition that friends are risk factors in the acquisition of problem behavior; too little consideration has been given to the protective potential illustrated by these findings.

Acceptance is a broad construct, encompassing many potential sources of influence (Laursen & Hartup, 2002). Some better accepted friends score high on perceived popularity; these individuals may use coercion to maintain status. Other better accepted friends profit from superior social skills. Better accepted individuals may have many friends, diluting the influence of a particular partner. Less accepted partners receive more rewards from a friendship than better accepted partners, both absolutely, by virtue of affiliating with more desirable partners, and relatively, by virtue of the fact that they receive rewards from fewer peers. Compared with less accepted friends, better accepted friends have more alternative

relationship partners. Taken together, compliance incentives are stronger for less accepted friends, who have more to lose from relationship dissolution than their better accepted partners.

Several potential moderators were discounted. Consistent with others who report socialization influence to be constant across mid- and late adolescence (Steinberg & Monahan, 2009), we found that patterns of influence did not differ for secondary school students and high school students. Relatively more accepted friends were not older than their counterparts, nor were they higher on initial levels of delinquency or intoxication frequency. The findings held when controlling for absolute levels of peer acceptance, suggesting that they are not restricted to dyads with large acceptance gaps or individuals with peer difficulties. We could not, however, separate the effects of influence from those of susceptibility to influence (Allen, Porter, & McFarland, 2006); studies that do, report that the latter does not vary as a function of peer acceptance (Urberg et al., 2003).

Other limitations merit mention. Friendships were determined from a limited number of important peer nominations, which could include siblings and romantic partners. Those whose friendships were less salient than other peer relationships may not be fully represented in this sample, but there is no reason to suspect that this might alter results concerning relative acceptance. Perceived popularity was not assessed and may have been responsible for some of the results attributed to acceptance. Supplemental analyses including all friendships at all time points replicated primary analyses limited to one friendship per individual, ruling out the possibility that the findings were a product of the participant selection criteria. This analytic strategy is awkward; new multilevel or stochastic modeling approaches are anticipated that will enable future scholars to describe influence within multiple overlapping friendships.

This is one of the first studies to estimate influence during the formation of a friendship. Initial influence, which was modest, should not be confused with selection effects, which describe similarity between partners before the friendship begins (Time 1 correlations estimate selection effects). We can only speculate as to early influence mechanisms. One possibility is that prospective friends alter behaviors to gain favor with higher status youth. Another possibility is that change occurs in response to influence exerted as acquaintances are made. This study is also unique in finding that increases in problem behavior similarity were not an artifact of deselection (wherein the initially dissimilar discontinue their friendship leaving behind only the initially similar). Selection effects were partitioned out of estimates of friend influence, and deselection effects were discounted by separating stable and unstable friends at the outset.

The findings indicate that the better accepted member of a long-term, stable friendship becomes increasingly influential over the rate at which his or her partner acquires problem behaviors, particularly if the better accepted friend has more initial problems. This gives rise to the conclusion that the onset of a new relationship is not the period of greatest risk for the adoption of new problem behaviors. Instead, socialization unfolds gradually after partners in well-established friendships settle into roles that define who influences whom.

Acknowledgments

Thanks to Bill Burk, Danielle Popp, and Ashley Richmond for advice and assistance. Support for the *10 to 18 Project* was provided to Margaret Kerr and Håkin Stattin by the Swedish Research Council. Brett Laursen received support from the U.S. National Institute of Mental Health (MH58116) and the U.S. National Science Foundation (0923745).

References

- Allen JP, Porter MR, McFarland FC. Leaders and followers in adolescent close friendships: Susceptibility to peer influence as a predictor of risky behavior, friendship instability, and depression. *Development and Psychopathology*. 2006; 18:155–172. [PubMed: 16478557]
- Allen JP, Porter MR, McFarland FC, Marsh P, McElhaney KB. The two faces of adolescents' success with peers: Adolescent popularity, social adaptation, and deviant behavior. *Child Development*. 2005; 76:747–760. [PubMed: 15892790]
- Asher, SR.; McDonald, KL. The behavioral basis of acceptance, rejection, and perceived popularity. In: Rubin, KH.; Bukowski, WM.; Laursen, B., editors. *Handbook of peer interactions, relationships, and groups*. New York: Guilford; 2009. p. 232-248.
- Cohen GL, Prinstein MJ. Peer contagion of aggression and health risk behavior among adolescent males: An experimental investigation of effects on public conduct and private attitudes. *Child Development*. 2006; 77:967–983. [PubMed: 16942500]
- Dishion TJ, Spracklen KM, Andrews DW, Patterson GR. Deviance training in male adolescent friendships. *Behavior Therapy*. 1996; 27:373–390.
- Ellis WE, Zarbatany L. Explaining friendship formation and friendship stability. *Merrill-Palmer Quarterly*. 2007; 53:79–104.
- Fishbein, M.; Azjen, I. *Predicting and changing behavior: The reasoned action approach*. New York: Psychology Press; 2010.
- Kandel DB. Homophily, selection, and socialization in adolescent friendships. *American Journal of Sociology*. 1978; 84:427–436.
- Kenny, DA.; Kashy, DA.; Cook, DL. *Dyadic data analysis*. New York: Guilford; 2006.
- Laursen, B.; Hartup, WW. The origins of reciprocity and social exchange in friendships. In: Laursen, B.; Graziano, WG., editors. *Social exchange in development New Directions for Child and Adolescent Development*. San Francisco: Jossey-Bass; 2002. p. 27-40.No. 95
- Magnusson, D.; Dunér, A.; Zetterbloom, G. *Adjustment A longitudinal study*. New York: Wiley; 1975.
- Popp D, Laursen B, Kerr M, Stattin H, Burk WJ. Modeling homophily over time with an actor-partner interdependence model. *Developmental Psychology*. 2008; 44:1028–1039. [PubMed: 18605832]
- Rusbult CE, Buunk BP. Commitment processes in close relationships: An interdependence analysis. *Journal of Social and Personal Relationships*. 1993; 10:175–204.
- Steinberg L, Monahan KC. Age differences in resistance to peer influence. *Developmental Psychology*. 2007; 43:1531–1543. [PubMed: 18020830]
- Stevens EA, Prinstein MJ. Peer contagion of depressogenic attributional styles among adolescents: A longitudinal study. *Journal of Abnormal Child Psychology*. 2005; 33:25–37. [PubMed: 15759589]
- Urberg KW, Luo Q, Pilgrim C, Değirmencioğlu SM. A two-stage model of peer influence in adolescent substance use: Individual and relationship-specific differences in susceptibility to influence. *Addictive Behaviors*. 2003; 28:1243–1256. [PubMed: 12915166]
- Vitaro F, Brendgen M, Tremblay RE. Influence of deviant friends on delinquency: Searching for moderator variables. *Journal of Abnormal Child Psychology*. 2000; 28:313–325. [PubMed: 10949957]

Figure 1. Friend Influence on Alcohol Intoxication Frequency as a Function of Relative Acceptance in Stable and Unstable Friendships

Note. $N = 59$ stable friend dyads and 114 unstable friend dyads. Multiple group model fit, $\chi^2_{(8)} = 10.07, p = .26$ (CFI = .99; RMSEA = .064, 95% CI [.042, .081]). * $p < .05$. ** $p < .01$.

Figure 2. Friend Influence on Delinquency as a Function of Relative Acceptance in Stable and Unstable Friendships

Note. $N = 59$ stable friend dyads and 114 unstable friend dyads. Multiple group model fit, $\chi^2_{(8)} = 21.68, p = .006$ (CFI = .95; RMSEA = .092, 95% CI [.074, .109]). * $p < .05$. ** $p < .01$.

Table 1

Changes in Intoxication Frequency and Delinquency over Time

Variable/Time	<i>M</i>	<i>(SD)</i>	95% <i>CI</i>	<i>F</i>	<i>df</i>	<i>p</i>	<i>α</i>
Intoxication Frequency							
Time 1	1.50	(.57)	[1.40-1.59]	37.11	2, 173	.001	.89
Time 2	1.68	(.64)	[1.57-1.80]				.86
Time 3	1.97	(.72)	[1.83-2.11]				.88
Delinquency							
Time 1	1.15	(.16)	[1.12-1.17]	6.26	2, 173	.002	.86
Time 2	1.20	(.16)	[1.14-1.24]				.84
Time 3	1.24	(.27)	[1.19-1.29]				.83

Note. *N* = 346. Time 1 represents 7th and 10th grades combined; Time 2 represents 8th and 11th grades combined; Time 3 represents 9th and 12th grades combined.

Within-Dyad Similarity in Intoxication Frequency and Delinquency: Intraclass correlations for Stable Friends and Unstable Friends

Table 2

Friendship Group/Time	Intoxication Frequency	Delinquency
Stable Friends		
Time 1 (Before the Friendship)	.54**	.50**
Time 2 (1 st Year of the Friendship)	.68**	.53**
Time 3 (2 nd Year of the Friendship)	.75**	.57**
Unstable Friends		
Time 1 (Before the Friendship)	.67**	.25*
Time 2 (During the Friendship)	.69**	.47**
Time 3 (After the Friendship)	.44**	.17

Note. N=59 stable friend dyads and 114 unstable friend dyads. Time 1 represents 7th and 10th grades combined; Time 2 represents 8th and 11th grades combined; Time 3 represents 9th and 12th grades combined.

* p<.05.

** p<.01.