"They Like Me, They Like Me Not": Popularity and Adolescents' Perceptions of Acceptance Predicting Social Functioning Over Time

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Abstract

This study examined the dual roles of adolescents' perceptions of social acceptance and sociometric popularity in predicting relative changes over time in adolescents' social functioning. Observational, self-report, and peer report data were obtained from 164 adolescents who were interviewed at age 13 years and then again at age 14 years, as well as their same-sex close friends. Adolescents who felt positively about their own social standing fared well over time, regardless of their level of sociometric popularity. Further, low popularity was particularly problematic for adolescents who failed to see themselves as fitting in. Results suggest that during adolescence, when it becomes increasingly possible for teens to choose their own social niches, it is possible to be socially successful without being broadly popular.

As adolescence progresses, the importance of peer relationships increases dramatically. Teens spend proportionately less time with family and more time with friends, and these peer relationships become more intimate (Buhrmester & Furman, 1987; Ellis, Rogoff, & Cromer, 1981; Larson & Richards, 1991). Further, peer relationships provide an important context for learning and developing interpersonal skills that are necessary for both friendships and romantic relationships later in life (Connolly, Furman, & Konarski, 2000; Furman & Wehner, 1994). As such, being accepted by one's peer group during early adolescence seems likely to pave the way for successful social functioning throughout the course of adolescence and into adulthood. However, the relatively limited literature examining social acceptance with peers during adolescence indicates that popular status does not uniformly predict positive outcomes for teens, nor does rejection automatically lead to negative outcomes (e.g., Allen, Porter, McFarland, Marsh, & McElhaney, 2005; Prinstein & Aikins, 2004). We suggest that during adolescence, teens' perceptions of their own social success may be a crucial predictor of long-term social functioning, such that even teens who are not broadly popular may demonstrate positive adjustment over time if they maintain a positive internal sense of their social acceptance.

One of the fundamental changes that comes with the increased mobility, larger school contexts, and greater independence of adolescence is an increased ability to select one's peer group and to associate with peers who may or may not also be classmates. Sociometric studies examining effects of popularity during childhood typically rely upon assessments within a single contained classroom (as this is the most relevant social group for most children), and past studies have demonstrated strong correlations between children's own

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views of their social competence and their sociometric standing (Harter, 1982). In adolescence, however, groupings may be far larger, possibly encompassing entire grade levels in schools and/or including friendships from contexts outside of school (e.g., youth groups, sports teams, and work places). As a result, it becomes increasingly possible for the meaning of popularity as assessed by classmates to naturally diverge from the adolescent's own sense of their social acceptance. For example, teens who are less popular on a school wide basis might engage in niche picking (Scarr & McCartney, 1983), in which they are well liked within a smaller group of friends (either within or outside of school), which may serve as the teens' effective or functional peer group. Hence, with development, perceived social acceptance may become an increasingly important marker of social success, in part because self-reported social acceptance is likely to most accurately reflect the adolescents' success within their own uniquely defined social milieu.

Evidence from several sources supports this idea that perceiving oneself to be liked may actually be at least as critical in determining future social outcomes for teens as is actually being liked by other teens. Several bodies of evidence from both childhood and adolescence —in areas ranging from attachment expectations, to attributional biases, to rejection sensitivity—suggest that internal assessments of one's relations with others and expectations about how one will be treated by others are critical in shaping emotional and behavioral outcomes (e.g., Dodge & Price, 1994; Downey & Feldman, 1996; Sroufe, 2005). Further, there is some indication that self-views become more stable and enduring by adolescence, suggesting that they may take on more importance in how individuals approach their social worlds at this age (Trzesniewski, Donnellan, & Robins, 2003). Research with younger samples and at least one study with adolescents has suggested that children who perceive themselves as having great difficulties being liked by their peers are likely to go on to experience social difficulties—they may withdraw from peer interaction and/or their attempts to engage their peers may be relatively unskilled and thus unsuccessful (Boivin & Begin, 1989; Caldwell, Rudolph, Troop-Gordon, & Kim, 2004; Cassidy, Kirsh, Scolton, & Parke, 1996; Cillessen & Bellmore, 1999; Patterson, Kupersmidt, & Griesler, 1990; Rubin & Mills, 1988). Alternatively, those who see themselves as being socially accepted may seek out future friendships with greater confidence in their abilities and thus in a sense make themselves into people that their peers like and seek out as companions (Nelson & Crick, 1999). No research, however, has examined the extent to which teens' perceptions of social acceptance by peers might have predictive value even after accounting for actual popularity within a broader peer group or whether perceptions of acceptance might be an important moderator of popularity in predicting adolescents' future development.

Much of the work examining outcomes of peer acceptance during adolescence has utilized sociometric measures as predictors of adolescent adjustment. This work reveals different outcomes for those teens who are sociometrically popular (via peer nominations of "most liked") versus those who are perceived as popular (via peer reports of who is popular; Cillessen & Rose, 2005; Gest, Graham-Bermann, & Hartup, 2001; LaFontana & Cillessen, 2002; Parkhurst & Hopmeyer, 1998; Prinstein, in press; Rodkin, Farmer, Pearl, & Van Acker, 2000). In addition, low sociometric popularity is distinct from peer rejection, which is usually determined by peers' nominations of "least liked" classmates. Cross-sectional studies have generally shown that sociometrically popular teens have good social skills, few behavioral problems, and a large group of friends, particularly when compared to rejected teens (Franzoi, Davis, & Vasquez-Suson, 1994; Frentz, Gresham, & Elliott, 1991; Pakaslahti, Karjalainen, & Keltikangas-Jarvinen, 2002; Parkhurst & Hopmeyer, 1998; Rubin, Bukowski, & Parker, 1998; Wentzel & McNamara, 1999). However, one recent short-term longitudinal study revealed mixed outcomes for popular teens: Although they became more competent within their close friendships and showed decreases in peer-reported hostility over time, they also demonstrated relative increases (over 1 year) in minor

deviant behavior and alcohol and substance use (Allen et al., 2005). Thus, sociometric popularity may well be a concurrent marker of social success, but the internalized sense that one can do well with peers—as a potentially more "face valid" indicator of teens' level of confidence and sense of efficacy in their social world—may be at least as important as a predictor of future levels of adaptive social development.

Although no studies to date have investigated how self-perceptions might moderate the effects of popularity per se, there is some evidence that such moderating effects are likely to exist. In particular, the negative effects of both peer rejection and membership in a low-status "crowd" have been shown to be mitigated by one marker of adolescents' social perceptions: The degree to which they valued being accepted by their peers (Brown & Lohr, 1987; Prinstein & Aikins, 2004; Von Bank, Brown, & Steinberg, 2006). More specifically, teens who were seen as "left out" by their peers (either by "least liked" nominations or by lack of peer-reported crowd affiliation) but who also reported placing little importance on peer acceptance demonstrated significantly better adjustment than those who were similarly ostracized but also cared more deeply about their status with peers (Brown & Lohr, 1987; Prinstein & Aikins, 2004). Although these studies have begun to map out some ways in which certain cognitions may moderate the effects of *negative* experiences with peers, it also seems important to also understand how self-perceptions may moderate the effects of a more broadly applicable phenomenon, that of being preferred or well liked by one's peer group.

Somewhat surprisingly, questions about the future import of either adolescents' actual or perceived social acceptance have rarely been addressed empirically. Further, no study of which we are aware has investigated how perceived social acceptance and sociometric popularity might work together in predicting adolescents' future social adjustment. The current study used multiple methods and multiple reporters to assess the effects of both a preference-based measure of sociometric popularity and self-perceived social acceptance on the relative changes in social functioning in a diverse sample of young adolescents who were followed over a 1-year period. We hypothesized that sociometric popularity and perceptions of one's own social acceptance would both be primary predictors of relative change in social functioning in early adolescence, as determined by peer reports and observational data of interactions with friends. However, we further hypothesized that the links between sociometric popularity and the outcomes in question would be moderated by perceived social acceptance. More specifically, we expected that adolescents who perceived themselves to be accepted would be socially well adjusted (decreasing hostility, increasing desirability as a companion, decreasing withdrawal, and decreasing advice seeking), regardless of their actual sociometric status. However, those who lacked acceptance *both* in terms of self-perceived acceptance and preference-based sociometric popularity were expected to have the most difficulties over time.

Method

Participants

This sample was drawn from a larger, longitudinal investigation of adolescent social development in familial and peer contexts. Participants included 164 adolescents (78 female and 86 male) and their same-sex close friends, who were first interviewed at age 13 years ($M = 13.33$, $SD = 0.61$) and then again at age 14 years ($M = 14.25$, $SD = 0.75$). The current sample was racially/ethnically and socioeconomically diverse: Sixty-five percent of the adolescents identified themselves as Caucasian and 35% as being from a minority and/or mixed ethnicity group. Adolescents' parents reported a median family income in the $40,000 – $59,999 range. Adolescents also nominated a close, same-sex friend to be included in the study; close friends were defined as "people you know well, spend time with and whom you talk to about things that happen in your life." At the first wave of data

collection, close friends reported that they had known the adolescents for an average of 4 years ($M = 4.09$, $SD = 2.98$).

Adolescents were recruited from a public middle school drawing from suburban and urban populations in the Southeastern United States. Students were recruited via an initial mailing to parents of students in the relevant grades in the school that gave them the opportunity to opt out of any further contact with the study. Only 2% of parents opted out of such contact. Of all families subsequently contacted by phone, 63% agreed to participate and had an adolescent who was able to come in with both a parent and a close friend. Siblings of target adolescents and students already participating as a target adolescent's close friend were ineligible for participation. This sample appeared generally comparable to the overall population of the school in terms of racial/ethnic composition (35% non-White in sample vs. ~ 40% non-White in school) and socioeconomic status (mean household income = $44,900 in sample vs. $48,000 for community at large).

Participating adolescents came in for one to two visits during each wave of data collection. All participants provided informed assent before each interview session, and parents provided informed consent. All interviews took place in private offices within a university academic building. Parents, adolescents, and friends were all paid for their participation. The current sample of 164 adolescents represents a subsample of 184 adolescents who initially participated in the study. Of the original 184 teens, 2 did not complete all of the required data at the first time point and were dropped from the data set; these participants did not differ from the remaining 182 on any of the study variables. Of the 182 who had complete data at the first time point, an additional 18 participants did not have complete data on all of the Time 2 variables. Attrition analyses indicated that individuals who did not have complete data for the second wave of data collection were more likely to be members of a racial/ethnic minority ($\chi^2 = 9.62$, $p = .01$). There were no other significant differences on any study variables between those adolescents who did versus did not have complete data at the second time point.

Measures

Perceived social acceptance—Adolescents' perceptions of their own level of social acceptance at Time 1 were assessed using a slightly modified version of a subscale from the Adolescent Self-Perception Profile (Harter, 1988). The format of this measure requires the adolescents to choose between two contrasting descriptors and then rate the extent to which their choice is *really true* or *sort of true* about themselves. Responses to each item are scored on a 4-point scale and then summed, with higher scores reflecting higher levels of perceived social acceptance. Due to time constraints, the subscale assessing social acceptance was shortened from five items to four items relating to popularity and adjustment within the larger peer group. Sample items included "Some teens find it hard to make friends/some teens find it's pretty easy to make friends" and "Some teens are popular with other teens their age/some teens are not very popular with teens their age." The shortened version of this scale showed good internal consistency (Cronbach's α = .79 at Time 1 and .78 at Time 2), was highly correlated with the full scale in another data set ($r = .97$), and has previously been linked to maternal support, maternal parenting values, and stability versus instability in the peer group (Antonishak, Schlatter, & Allen, 2005; Manning, Allen, & McElhaney, 2006; Porter & Kaufman, 2003).

Popularity—Preference-based popularity was assessed at the first time point using a limited nomination sociometric procedure. Each adolescent, his or her closest friend, and two other target peers named by the adolescent were asked to nominate up to 10 peers in their grade with whom they would "most like to spend time on a Saturday night" and an

additional 10 peers in their grade with whom they would "least like to spend time on a Saturday night." The raw number of like nominations each teen received was standardized within grade level before being added to the main data set as the primary measure of popularity following the procedure described in Coie, Dodge, and Coppotelli (1982). This procedure resulted in a sample of 72 – 146 teens (depending on the grade level), comprising approximately 38% of the entire student population in these grades, who provided nominations of anyone in their grade at school. Grade-based nominations were utilized rather than classroom-based nominations due to the age and classroom structure of the school that all of the participants attended. The large number of raters for each teen (each received a yes – no nomination from each participating nominator in his or her grade) means that this subsample of nominators is likely to yield fairly reliable estimates of popularity for each teen (Prinstein, in press). Preliminary analyses of the 1-year test – retest stability of these popularity ratings over time indicating a 1-year stability coefficient of $r = .77$ ($p < .001$) further suggest that this procedure was indeed reliably capturing the popularity of the teens in our study. This procedure has been validated in two past studies with this same sample, with preference-based popularity being linked to numerous positive indicators of adjustment, including attachment security, ego development, and competence in close friendships (Allen et al., 2005; Allen, Porter, McFarland, McElhaney, & Marsh, 2007).

Observed concrete advice seeking and receiving—The quality of adolescents' interactions with their closest friend was observed during a Supportive Behavior Task at both time points (Allen et al., 1999). Adolescents participated in a 6-min interaction task with their closest same-sex friend, during which they talked to him or her about a "problem they were having that they could use some advice or support about." Typical topics included dating, problems with peers or siblings, raising money, or deciding about joining sports teams. These interactions were then coded using the Supportive Behavior Coding System (Allen et al., 2001), which was based on several related systems developed by Crowell and colleagues (Crowell et al., 1998; Haynes & Fainsilber Katz, 1998; Julien et al., 1997). The degree of the adolescent's call for practical advice from their friend as well as their friend's provision of advice were coded on scales ranging from 0 to 4 (0 = *characteristic not present*, 4 = *characteristic highly present*), based on the strength and persistence of the adolescent's requests for practical advice or assistance (as opposed to emotional support) and the friend's attempts to provide suggestions and/or offer plans to solve the problem. Because these particular scales captured a process in which the adolescents were essentially asking for and receiving very basic and concrete advice (e.g., the exact procedures for getting a part-time job at the mall), higher scores on this scale were thought to reflect a relative lack of social skills on the part of the participating adolescent. These two subscales were highly correlated at both time points (rs = 0.82 at Time 1 and 0.71 at Time 2) and thus were combined to yield the overall dyadic scale for advice seeking/receiving. Each interaction was reliably coded as an average of the scores obtained by two trained raters blind to other data from the study with excellent reliability (T1 intraclass correlation = 0.89, T2 = 0.85).

Peer-reported aggression and hostility—Close friends' ratings of the target adolescents' levels of aggression and hostility were obtained at both Time 1 and Time 2 using scales from a short form of the Child Behavior Checklist (CBCL; Achenbach, 1991; Achenbach & Edelbrock, 1981; Lizotte, Chard-Wierschem, Loeber, & Stern, 1992). This measure (originally designed for teacher or parent report) asked friends to indicate how often a series of behavioral descriptions applied to the target adolescents, on a scale of 0 = *not true* to 2 = *very or often true*. The aggression and hostility subscales on this measure were significantly positively correlated ($r = .67$ T1, $r = .65$ T2), and thus, they were combined into a single scale containing 18 items reflecting youths' difficulties socializing appropriately with peers in terms of acting out against them. Sample items included "is

mean to others," "gets in fights," "threatens people," and "has a hot temper." This scale showed good internal consistency (Cronbach's α = .77 at Time 1 and .81 at Time 2). The CBCL has been validated for use with peers in previous studies linking peer-reported externalizing behavior to attachment frame of mind, instability in the peer group, and cognitive expectations of parents and peers (Allen et al., 2007; Antonishak, Schlatter, & Allen, 2005; Porter, 2001) and the short form has been shown to reliably predicted delinquency similar to the full scales (Lizotte et al., 1992).

Peer-reported companionship—A five-item subscale of the Friendship Quality Questionnaire (Parker & Asher, 1993) was used to assess close friends' reports of the target adolescents' desirability as a companion at Time 1 and Time 2. Friends were asked to rate the degree to which they sought out and enjoyed the target adolescents' company on a 5-point Likert scale (ranging from 1 = *not at all true* to 5 = *really true*). Sample items include "We do fun things together a lot" and "We always spend free time at school with each other." This scale showed good internal consistency, with Cronbach's αs = .82 at Time 1 and .83 at Time 2.

Peer-reported social withdrawal—The Withdrawal scale from the Pupil Evaluation Inventory (Pekarik et al., 1976) was utilized at both Time 1 and Time 2 to gather close friends' ratings of the target adolescent on nine different items tapping socially withdrawn behavior, for example, "She/he often doesn't want to hang out or do things with other kids." Each item was rated on a 3-point scale (ranging from 0 = *not true* to 2 = *very often or often true*). This scale has been shown to have good reliability and validity as a marker of childhood vulnerability to psychopathology (Pekarik et al., 1976; Weintraub et al., 1978). Internal consistency for the scale was good (Cronbach's α = .72).

Results

Preliminary and Correlational Analyses

Table 1 presents the means and standard deviations of all variables examined at Time 1 to Time 2. However, the overall sample means of most of the variables examined did not change significantly over this 1-year period; therefore, the analyses presented next examined individual variability in change. The one variable that showed significant change over time in the global sample mean was observed advice seeking/receiving between the adolescents and their close friends, which increased from Time 1 to Time 2 ($t = 2.88$, $p < .01$). Table 2 presents simple correlations among all independent and dependent variables. Self-reported social acceptance as measured at Time 1 was significantly correlated with several of the outcome variables, including peer-reported aggression/hostility, withdrawal, and companionship at Time 2 (but not at Time 1). Preference-based sociometric popularity as measured at Time 1 was also significantly correlated with several of the outcome variables, including peer-reported aggression/hostility at both time points, peer-reported withdrawal at both time points, and peer-reported companionship at both time points. Self-reported social acceptance and sociometric popularity were moderately positively correlated with each other ($r = .25$, $p < .001$). The four outcome variables ranged from being uncorrelated to being moderately correlated; this very modest degree of overlap suggests the findings reported are relatively independent of one another, although the presence of some overlap makes clear that this independence is not entirely complete.

Primary Analyses

Analytic strategy—A series of hierarchical regressions was conducted to examine the degree to which adolescents' sociometric popularity and their perceptions of their own level of social acceptance predicted relative changes in various indices of social functioning over

a 1-year period. Demographic variables of adolescent gender and minority status entered first, followed by the Time 1 level of the outcome in question, followed by each of the independent variables. This approach of predicting the future level of a variable while accounting for predictions from initial levels (e.g., stability) yields one marker of change in that variable: increases or decreases in its final state relative to predictions based upon initial levels (Cohen & Cohen, 1983). In addition, covarying baseline levels of future behavior reduces the likelihood that observed predictions are simply a result of cross-sectional associations among variables that are stable over time. Interaction terms were created by standardizing the independent variables and multiplying them together, and these terms were then entered as the final step in the models along with the main effects and demographic variables. Note that interaction effects between each of the demographic variables and the two independent variables were also examined in a final step and no such effects were found.

Examining the relative effects of perceived social acceptance and sociometric popularity: Peer-reported outcomes—The first set of models examined the combined effects of sociometric popularity and perceived social acceptance as predictors of relative changes in the three peer-reported outcomes: aggression/hostility, desirability as a companion, and withdrawal. As can be seen in Table 3, in the models predicting peer-reported aggression/hostility, there was a trend-level main effect for sociometric popularity; however, when self-reported social acceptance was entered into the model, this effect dropped below significance ($\beta = -.08.$ $p = .34$). There was a significant main effect for adolescents' self-reported social acceptance, such that higher levels of felt social acceptance predicted relative decreases in peer-reported aggressive and hostile behavior over time. With regard to peer-reported companionship, there were significant main effects for both sociometric popularity and felt social acceptance, such that teens who were rated as more popular and who saw themselves as highly accepted were seen as increasingly desirable companions over time.

However, both of these models also revealed significant interaction effects, which are depicted in Figure 1. Post hoc tests of these interactions, following techniques prescribed by Aiken and West (1991) and Holmbeck (2002), indicated that the slope of the line for low self-reported social acceptance significantly differed from zero in both cases (aggression: $\beta = -.39$, $p < .01$; companionship: $\beta = .48$, $p < .001$); the slope for the high social acceptance group was not significantly different from zero for either outcome. These interaction effects revealed that adolescents who reported high levels of social acceptance were consistently rated as relatively lower in aggression and hostility by their peers and as more desirable companions from Time 1 to Time 2, regardless of their levels of sociometric popularity. Similarly, those who were rated as sociometrically popular were also uniformly rated as relatively lower in aggression/hostility and more desirable companions, regardless of their levels of self-perceived social acceptance. In contrast, the teens who showed the highest relative increases in aggression/hostility and the highest relative decreases in ratings of companionship over this time period were those who *both* reported low levels of social acceptance and who received low preference-based popularity ratings from their peers (see Figure 1).

The model examining the combined effects of perceived social acceptance and sociometric popularity in predicting relative changes in peer-reported withdrawal revealed a significant main effect for sociometric popularity. However, when self-reported social acceptance was entered into the model, this effect dropped to a trend level ($\beta = -.13.$ $p = .10$). Teens' own perceptions of social acceptance remained a significant predictor, such that adolescents who saw themselves as highly accepted were rated by their peers as becoming relatively less withdrawn over time (see Table 4). No moderating effect was revealed in this model.

Examining the relative effects of perceived social acceptance and sociometric popularity: Observed interactions with friends—The final set of regressions examined the combined effects of sociometric popularity and perceived social acceptance, with regard to future observed levels of basic advice seeking and receiving that occurred during the supportive interaction task. It should be noted for this model that there was relatively low correspondence between the level of advice seeking and receiving across waves (see Table 2). Thus, although covarying out the T1 level of advice seeking helps to eliminate the small stability coefficient that does exist, in this case, it makes most sense to consider the findings below less as predictions of relative change and more as predictions of T2 levels of advice seeking.

As can been seen in Table 5, there were no significant main effects revealed in this model, though there was a significant interaction effect as depicted in Figure 2. Post hoc tests of this interaction again indicated that the slope of the line for low self-reported social acceptance was significantly different from zero ($\beta = -.32$, $p < .05$), whereas the slope of the line for the high social acceptance group was not different from zero. Similar to the previously discussed findings, those adolescents who showed the greatest relative levels in asking for and receiving concrete, practical advice from their friends at T2 were those who were low on both preference-based sociometric popularity and self-reported social acceptance (see Figure 2). Teens who were high on either self-reported social acceptance or sociometric popularity showed relatively low to moderate levels of seeking and receiving this type of advice during their T2 interactions with their friends.

Discussion

Many adolescents agonize extensively over how well they are liked and accepted by their peers—a fact that is both well known and at times bemoaned by the adults who live and work with them. However, there is relatively little research examining the developmental import of social acceptance at this age and virtually none that looks at the relative contributions of what teens themselves think versus peers' ratings of their social status. Although many adults may get frustrated or impatient with adolescents' investment in being well liked by their peers, the current study suggests that adolescents' level of acceptance from their peers is indeed a key predictor of their future social development. Further, these data suggest that although both sociometric preference-based popularity and self-perceived social acceptance predict future social success, in fact, it is not necessary to be highly accepted by both standards. When teens themselves felt socially confident and comfortable with their peers, they did well regardless of their actual social status; alternatively, teens who were highly preferred by their peers according to sociometric ratings also fared well, regardless of their own perceptions of their social standing. Finally, the adolescents who demonstrated the worst social outcomes over time were those who lacked both a strong sense of their own social acceptance and correspondingly were rated as unpopular by their peers.

The combination of sociometric popularity and self-perceived social acceptance was significantly predictive of relative changes in peer-reported indices of adolescents' social adjustment, including aggressive and hostile behavior, desirability as a companion, and withdrawal. The combination of these two variables accounted for between 9% and 16% of these outcomes (with the moderating effects accounting for approximately 3% – 4%). Past research has typically found sociometrically popular teens to be relatively socially successful, so in that sense, these findings may not seem particularly surprising. However, adolescents who believed themselves to be socially accepted fared better socially regardless of their level of popularity—even relatively unpopular teens became increasingly less hostile and increasingly more desirable companions when they believed that they were accepted by

their peers. One possible explanation for these findings is that some teens who were not seen as popular by their classmates may in fact be socially successful in other arenas outside of school (e.g., church and work). Thus, they maintain a high level of confidence and assurance that they are likable and fun to be with, such that peers at school come to increasingly seek them out. Further, they may have access to peer interactions outside of school in which they have opportunities that allow them to further develop their social skills, maintaining ones that are adaptive and dropping those that are discouraged (e.g., hostility). Finally, the adolescents who became relatively more hostile and who were increasingly less sought out by their peers were those who uniformly lacked social connections—they were *both* broadly unpopular (as per preference-based sociometric rankings) and viewed themselves as not fitting in. This is clearly an undesirable position for these teens, and the combination of hostility and social isolation is likely to continue to be costly to their future socioemotional adjustment.

With regard to peer ratings of withdrawal, both sociometric preference-based popularity and self-reported social acceptance predicted which teens demonstrated the greatest relative increases in withdrawal over the year. Adolescents who were left out and those who felt left out both became relatively increasingly withdrawn (as rated by their peers) from ages 13 to 14 years. Teens who are not perceived as popular, although not necessarily rejected, still may suffer socially from being "off of the radar screen" with regard to their peers at school. Their tendency to not be included in peer interactions at school may foster a self-fulfilling prophecy of sorts, in which these teens begin to decrease their bids for inclusion in peer activities over time. Similarly, teens who are low in self-perceived social acceptance may approach peer interactions expecting failure and rejection, and this negative mind-set may undermine their ultimate social success in multiple ways. The relative increase in withdrawal seen in these adolescents could also be linked to social skill deficits that both peers and teens themselves are aware of. However, even when teens may actually have the abilities to interact appropriately with their peers, the heightened tendency to avoid peer interactions may result in missing opportunities to practice these skills. Thus, in the quickly changing social milieu of adolescence, this tendency to withdraw may be particularly costly, in that the social skills and tactics that were successful at younger ages may now no longer be effective.

Finally, a similar pattern of moderating effects was also found for observations of adolescents' behaviors while asking for and receiving advice from their friends. In this case, both adolescents who felt highly accepted and adolescents who actually were well accepted demonstrated very *low* levels of change in the rates at which they sought very basic advice from friends. In contrast, the teens who showed the greatest relative *increases* in seeking basic, practical advice were those who were low on both popularity and self-reported social acceptance. To the extent that asking for advice from friends seems like a positive behavior, this finding may at first seem counterintuitive. However, recent research has suggested that high levels of seeking help from peers may be a marker for emotional neediness that predicts future social anxiety (Teachman & Allen, 2008). Along these lines, the types of practical advice sought by teens who scored high on the particular scales used in the current study were so basic and elementary that they may have reflected relatively unskilled social behavior on the part of the target adolescent. Thus, the adolescents high in either self-perceived social acceptance or popularity appeared to feel no need to seek advice on practical matters and perhaps also intuitively recognized that more subtle or emotionally grounded strategies are required in order to attain stronger relationship support. On the other hand, the high levels of advice seeking in teens who were low in perceived social acceptance may mark their (largely unskilled) attempts to engage with their friends around relatively trivial and concrete matters. Though their friends do respond to these requests for help, it is likely that the degree of advice seeking about concrete topics displayed by these teens is off-

putting or irritating. In a sense, we may be capturing a real-life example of "trying too hard" —these adolescents may be compensating for their insecurities and/or relatively low social status by approaching their friends in a somewhat clueless and/or needy fashion. However, some caution is required in interpreting this finding, given the relative instability seen in this measure from ages 13 to 14 years; it may be that the measure of advice seeking becomes a more salient measure of neediness during mid-adolescence, and/or the measure may be capturing some other aspect of the dynamic of teen friendships that will become clearer as additional waves of data are examined.

Overall, these data demonstrate that neither preference-based popularity nor perceived social acceptance tells the whole story with regard to predicting adolescents' level of future social functioning. However, further research with additional waves of data will be needed to determine whether either teens with low popularity but high self-perceived acceptance or those with high popularity but low self-perceived acceptance will continue to do well over the longer term. Similarly, although the findings for the teens who were both low in sociometric popularity and self-perceived acceptance mirrored those often seen with rejected children, this study was not intended to examine the effects of peer rejection. By definition, the teens in the current study were all able to find at least one friend to participate with them, resulting in a sample that as a whole was relatively well socially adjusted. Future research particularly targeted at differentiating teens who fall at the low end of normal on social acceptance versus those who are relatively socially isolated versus those who are actively disliked by one's peers would be useful in furthering our understanding of these complex social dynamics. Finally, the approach used to measure change over time in this study (predicting future levels of behavior while covarying baseline levels of that same behavior) is but one measure of change over time. This measure of change is distinct from identifying change in the sample as a whole and from trajectories of growth over longer time periods; further research employing these methods will be important to conduct in the future.

It should be noted that the procedure for gathering the sociometric preference-based ratings of popularity used in the current study differed from other methods, including the classroom-based methods that have been utilized in similar studies with younger samples. Given that early adolescents are interacting with a broader range of peers within the school context, the classroom-based method appears less appropriate (and indeed, logistically less feasible) for this age group (Allen et al., 2005). However, the fact that each participant selects 3 of the 90 – 120 raters of popularity may create a slight bias in this measure as the larger group is slightly more likely to contain peers who knew each participant. Given the small percentage of the rating group that was selected by any individual teen (less then 3%), these biases were considered tolerable, though care should be taken in generalizing these findings to other studies of popularity that use different methods. This measure also asked adolescents with whom they would like to spend time (rather than to name peers they like or consider friends). Although this is believed to yield primarily a preference-based measure, it is likely that status considerations also play into youth's nominations on this measure. On a similar note, ratings of social acceptance (which were assumed to reflect social success within one's own social niche) were gathered via self-report, whereas success with the broader peer group was assessed via peer-reported sociometric rankings. Thus, we cannot say for sure whether the patterns of findings in the present study is attributable to the differences between self-report versus peer report, narrow niche versus broader group, or some combination of the two.

In spite of these limitations, this short-term longitudinal study highlights the critical importance of social acceptance from peers in relation to the promotion of healthy development during early adolescence. Given the developmental changes that take place in children's patterns of socializing as they enter adolescence (e.g., Buhrmester & Furman,

1987; Ellis, Rogoff, & Cromer, 1981; Larson & Richards, 1991), it becomes increasingly likely for school-based ratings of popularity to diverge from one's own perceptions of social success. As such, teens' beliefs about their own social abilities may stem from several sources and may not be based entirely on peer relationships within the school context. Thus, although popular adolescents do fare well socially, teens' own social perceptions may become increasingly important in shaping future adjustment, and it is possible for adolescents to ultimately be socially successful without being broadly popular. Said differently, feelings of confidence in one's own social standing seem to act as a protective factor—teens that demonstrated high levels of self-perceived social acceptance fared quite well over time, regardless of whether they were considered popular or unpopular by their peers at school. Similarly, feelings of not fitting in put teens at risk particularly when they are not well accepted by their peers: The teens who fared the most poorly over time were those who both felt left out and who, in fact, *were* left out in terms of preference-based popularity. Thus, social acceptance may become more multi-faceted during adolescence such that a complete understanding of social functioning during this developmental stage should take into account *both* teens' own sense of their social standing as well as ratings from their peers.

Acknowledgments

References

Achenbach, TM. Manual for the Youth Self-Report and 1991 Profile. Burlington: University of Vermont; 1991.

Achenbach TM, Edelbrock CS. Behavioral problems and competencies reported by parents of normal and disturbed children aged four through sixteen. Monographs of the Society for Research in Child Development. 1981; 46:1–82. [PubMed: 7242540]

Aiken, LS.; West, SG. Multiple regression: Testing and interpreting interactions. Newbury Park, CA: Sage; 1991.

Allen, JP.; Hall, FD.; Insabella, GM.; Land, DJ.; Marsh, PA.; Porter, MR. Supportive Behavior Task manual. Charlottesville: Department of Psychology, University of Virginia; 1999.

Allen, JP.; Hall, FH.; Insabella, G.; Land, D.; Marsh, PA.; Porter, MR. Unpublished manuscript. University of Virginia; 2001. The supportive behavior task coding system.

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]

Allen JP, Porter MR, McFarland FC, McElhaney KB, Marsh PA. The relation of attachment security to adolescents' paternal and peer relationships, depression, and externalizing behavior. Child Development. 2007; 78:1222–1239. [PubMed: 17650135]

Antonishak, J.; Schlatter, AKW.; Allen, JP. Instability in adolescent peer groups. Poster presented at the biennial meetings of the Society for Research on Child Development; Atlanta, GA. 2005 April.

Boivin M, Begin G. Peer status and self-perception among early elementary school children: The case of the rejected children. Child Development. 1989; 60:591–596. [PubMed: 2737009]

Brown BB, Lohr MJ. Peer-group affiliation and adolescent self-esteem: An integration of ego-identity and symbolic interaction theories. Journal of Personality and Social Psychology. 1987; 52:47–55. [PubMed: 3820077]

Buhrmester D, Furman W. The developmental of companionship and intimacy. Child Development. 1987; 58:1101–1113. [PubMed: 3608659]

Caldwell MS, Rudolph KD, Troop-Gordon W, Kim D. Reciprocal influences among relational self-views, social disengagement and peer stress during early adolescence. Child Development. 2004; 75:1140–1154. [PubMed: 15260869]

Cassidy J, Kirsh SJ, Scolton KL, Parke RD. Attachment and representations of peer relationships. Developmental Psychology. 1996; 32:892–904.

Cillessen AH, Bellmore AD. Accuracy of social self-perceptions and peer competence in middle childhood. Merrill-Palmer Quarterly. 1999; 45:650–676.

Cillessen AH, Rose AJ. Understanding popularity in the peer system. Current Directions in Psychological Science. 2005; 14:102–105.

Cohen, J.; Cohen, P. Applied multiple regression/correlation analysis for the behavioral sciences. Hillsdale, NJ: Erlbaum; 1983.

Coie JD, Dodge KA, Coppotelli H. Dimensions and types of social status: A cross age perspective. Developmental Psychology. 1982; 18:121–132.

Connolly J, Furman W, Konarski R. The role of peers in the emergence of heterosexual romantic relationships. Child Development. 2000; 71:1395–1408. [PubMed: 11108103]

Crowell, J.; Pan, H.; Goa, Y.; Treboux, D.; O'Connor, E.; Waters, E. Unpublished manuscript. State University of New York; Stonybrook: 1998. The Secure Base Scoring System for Adults, Version 2.0.

Dodge KA, Price JM. On the relation between social information processing and socially competent behavior in early school-aged children. Child Development. 1994; 65:1385–1397. [PubMed: 7982356]

Downey G, Feldman SI. Implications of rejection sensitivity for intimate relationships. Journal of Personality and Social Psychology. 1996; 70:1327–1343. [PubMed: 8667172]

Ellis S, Rogoff B, Cromer CC. Age segregation in children's social interactions. Developmental Psychology. 1981; 17:399–407.

Franzoi SL, Davis MH, Vasquez-Suson KA. Two social worlds: Social correlates and stability of adolescent status groups. Journal of Personality and Social Psychology. 1994; 67:462–473. [PubMed: 7965601]

Frentz C, Gresham FM, Elliott SN. Popular, controversial, neglected and rejected adolescents: Contrasts of social competence and achievement differences. Journal of School Psychology. 1991; 29:109–120.

Furman, W.; Wehner, E. Romantic views: Toward a theory of adolescent romantic relationships. In: Montemayor, R.; Adams, GR.; Gullota, GP., editors. Advances in adolescent development: Relationships during adolescence. Vol. 6. Thousand Oaks, CA: Sage; 1994. p. 168-195.

Gest SD, Graham-Bermann SA, Hartup WW. Peer experience: Common and unique features of number of friendships, social network centrality and sociometric status. Social Development. 2001; 10:23–40.

Harter S. The perceived competence scale for children. Child Development. 1982; 53:87–97.

Harter, S. Manual for the Self-Perception Profile for Adolescents. Denver, CO: University of Denver; 1988.

Haynes, C.; Fainsilber Katz, KL. Unpublished manuscript. University of Washington; 1998. Adolescent social skills technique coding manual.

Holmbeck GN. Post-hoc probing of significant moderational and mediational effects in studies of pediatric populations. Journal of Pediatric Psychology. 2002; 27:87–96. [PubMed: 11726683]

Julien, D.; Markman, H.; Lindahl, K.; Johnson, H.; Van Widenfelt, B.; Herskovits, J. Unpublished manuscript. University of Denver; 1997. The interactional dimensions coding system.

LaFontana KM, Cillessen AH. Children's perceptions of popular and unpopular peers: A multi-method assessment. Developmental Psychology. 2002; 38:635–647. [PubMed: 12220043]

Larson R, Richards MH. Daily companionship in late childhood and early adolescence: Changing developmental contexts. Child Development. 1991; 62:284–300. [PubMed: 2055123]

Lizotte AJ, Chard-Wierschem DJ, Loeber R, Stern SB. A shortened Child Behavior Checklist for delinquency studies. Journal of Quantitative Criminology. 1992; 8:233–245.

Manning, N.; Allen, JP.; McElhaney, KB. Maternal conforming values and adolescent psychosocial adjustment. Paper presented at the biennial meetings of the Society for Research on Adolescence; San Francisco, CA. 2006 March.

Nelson DA, Crick NR. Rose-colored glasses: Examining the social information processing of prosocial young adolescents. Journal of Early Adolescence. 1999; 19:17–38.

Pakaslahti L, Karjalainen A, Keltikangas-Jarvinen L. Relationships between adolescent prosocial problem-solving strategies, prosocial behavior and social acceptance. International Journal of Behavioral Development. 2002; 26:137–144.

Parker JG, Asher SR. Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. Developmental Psychology. 1993; 29:611–621.

Parkhurst JT, Hopmeyer A. Sociometric popularity and peer-perceived popularity: Two distinct dimensions of peer status. Journal of Early Adolescence. 1998; 18:125–144.

Patterson CJ, Kupersmidt JB, Griesler PC. Children's perceptions of self and of relationships with others as a function of sociometric status. Child Development. 1990; 61:1335–1349. [PubMed: 2245728]

Pekarik EG, Prinz RJ, Liebert DE, Weintraub S, Neale J. The Pupil Evaluation Inventory: A sociometric technique for assessing children's social behavior. Journal of Abnormal Child Psychology. 1976; 4:83–97. [PubMed: 773996]

Porter, MR. Interpersonal expectations and quality of interactions: Associations between parents and peers. Paper presented at the biennial meetings of the Society for Research on Child Development; Minneapolis, MN. 2001 April.

Porter, MR.; Kaufmann, S. Maternal support behaviors and the development of peer competence during adolescence. Paper presented at the biennial meetings of the Society for Research on Child Development; Tampa, FL. 2003 April.

Prinstein MJ. Assessment of adolescents' preference and reputation based popularity using sociometric experts. Social Development. (in press).

Prinstein MJ, Aikins JW. Cognitive moderators of the longitudinal association between peer rejection and adolescent depressive symptoms. Journal of Abnormal Child Psychology. 2004; 32:147–158. [PubMed: 15164857]

Rodkin PC, Farmer TW, Pearl R, Van Acker R. Heterogeneity of popular boys: Antisocial and prosocial configurations. Developmental Psychology. 2000; 36:14–24. [PubMed: 10645741]

Rubin, KH.; Bukowski, WM.; Parker, JG. Peer interactions, relationships and groups. In: Damon, W.; Eisenberg, N., editors. Handbook of child psychology: Vol. 3, Social, emotional and personality development. Vol. 5. New York: Wiley; 1998. p. 619-700.

Rubin KH, Mills RS. The many faces of social isolation in childhood. Journal of Consulting and Clinical Psychology. 1988; 56:916–924. [PubMed: 3204203]

Scarr S, McCartney K. How people make their own environments: A theory of genotype/environment effects. Child Development. 1983; 54:424–435. [PubMed: 6683622]

Sroufe LA. Attachment and development: A prospective, longitudinal study from birth to adulthood. Attachment and Human Development. 2005; 7:349–367. [PubMed: 16332580]

Teachman, BA.; Allen, JP. Development of social anxiety: Social interaction predictors of implicit and explicit fear of negative evaluation. 2008. Manuscript submitted for publication

Trzesniewski KH, Donnellan MB, Robins RW. Stability of self-esteem across the life span. Journal of Personality and Social Psychology. 2003; 84:205–220. [PubMed: 12518980]

Von Bank, H.; Brown, BB.; Steinberg, L. Does awareness of peer crowd affiliation affect self-concept and well-being?. Paper presented at the biennial meetings of the Society for Research on Adolescence; San Francisco, CA. 2006 March.

Weintraub S, Prinz RJ, Neale JM. Peer evaluations of the competence of children vulnerable to psychopathology. Journal of Abnormal Child Psychology. 1978; 6:461–473. [PubMed: 730967]

Wentzel KR, McNamara CC. Interpersonal relationships, emotional distress and prosocial behavior in middle school. Journal of Early Adolescence. 1999; 19:114–125.
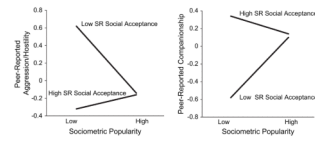
Figure 1.
The interaction between sociometric popularity and self-reported social acceptance in predicting relative changes in peer-reported aggression/hostility and desirability as a companion over time.
Note. SR = self-report.
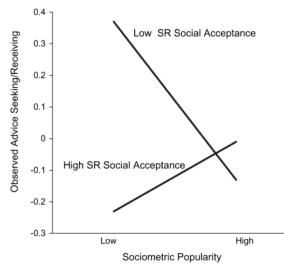
Figure 2.
The interaction between sociometric popularity and self-reported social acceptance in predicting relative changes in observed seeking and receiving advice from friends over time. *Note*. SR = self-report.

Table 1

Means and Standard Deviations

	Time 1, *M* (*SD*)	Range	Time 2, *M* (*SD*)	Range
Social acceptance (SR)	13.05 (2.92)	4.00 – 16.00	13.37 (2.64)	5.00 – 16.00
Popularity (PS)	1.02 (1.33)	−0.74 — 5.73	1.03 (1.22)	−0.73 — 4.66
Hostility (PR)	1.18 (1.50)	0.00 – 7.00	1.03 (1.42)	0.00 – 7.00
Withdrawal (PR)	2.04 (2.34)	0.00 – 12.38	1.75 (2.13)	0.00 – 12.00
Companionship (PR)	19.71 (4.57)	7.00 – 25.00	19.52 (4.42)	5.00 – 25.00
Advice seeking/receiving (O)	1.87 (1.19)	0.00 – 4.00	2.19 (0.92)	0.00 – 4.00

Note. O = observed; PS = peer sociometric rating; PR = peer report; SR = self-report.

Table 2

Intercorrelations Among Variables

	1	2	3	4	5	6	7	8	9	10
1. T1 Social acceptance (SR)	—									
2. T1 Popularity (PS)	.25**	—								
3. T1 Hostility (PR)	−.08	−.27**	—							
4. T2 Hostility (PR)	−.35**	−.21**	.29**	—						
5. T1 Withdrawal (PR)	−.14†	−.19*	.35**	.06	—					
6. T2 Withdrawal (PR)	−.29**	−.17*	.28**	.54**	.26**	—				
7. T1 Companionship (PR)	.10	.29**	−.16*	.08	−.14†	.01	—			
8. T2 Companionship (PR)	.25**	.29**	.00	−.16*	.02	−.10	.19*	—		
9. T1 Advice seeking/receiving (O)	−.01	.09	.08	.08	−.09	.06	.11	−.09	—	
10. T2 Advice seeking/receiving (O)	−.13†	−.06	−.07	−.07	.04	.13	.00	.07	.15†	—

Note. O = observed; PS = peer sociometric rating; PR = peer report; SR = self-report.

†
p < .10.

*
p < .05.

**
p < .01.

Table 3

Felt Social Acceptance and Popularity at Time 1 Predicting Relative Changes in Peer-Reported Outcomes Over Time

	T2 peer-reported aggression/hostility			T2 peer-reported companionship		
	β	ΔR^2	Total R^2	β	ΔR^2	Total R^2
Step 1						
Adolescent gender	.00			.04		
Minority status	.00	.00	.00	−.11	.01	.01
Step 2						
T1 Level of PR variable	.29**	.08**	.08**	.20*	.04*	.05*
Step 3						
T1 sociometric popularity	−.16†	.03†	.11**	.23**	.05**	.10**
Step 4						
T1 felt social acceptance	−.31**	.09**	.20**	.19*	.03*	.13**
Step 5						
T1 Felt Social Acceptance × T1 Sociometric Popularity	.23**	.04**	.24**	−.22**	.04**	.17**

Note. βs are from entry into the model. T1 = Time 1; T2 = Time 2.

†
$p < .10$.

*
$p < .05$.

**
$p < .01$.

Table 4

Felt Social Acceptance and Popularity at Time 1 Predicting Relative Changes in Peer-Reported Withdrawal Over Time

	T2 peer-reported withdrawal		
	β	ΔR^2	Total R^2
Step 1			
Adolescent gender	.17[*]		
Minority status	−.12	.04[*]	.04[*]
Step 2			
T1 PR withdrawal	.24[**]	.06[**]	.10[**]
Step 3			
T1 sociometric popularity	−.19[*]	.03[*]	.13[**]
Step 4			
T1 felt social acceptance	−.23[**]	.05[**]	.18[**]
Step 5			
T1 Felt Social Acceptance × T1 Sociometric Popularity	.11	.01	.19[**]

Note. βs are from entry into the model. T1 = Time 1; T2 = Time 2.

[*] $p < .05$.

[**] $p < .01$.

Table 5

Felt Social Acceptance and Popularity at Time 1 Predicting Relative Changes in Observed Levels of Seeking and Receiving Concrete Advice from Friends Over Time

	T2 observed seeking/Receiving advice		
	β	ΔR^2	Total R^2
Step 1			
Adolescent gender	−.05		
Minority status	−.08	.01	.01
Step 2			
T1 observed advice seeking/receiving	.14[†]	.02[†]	.03
Step 3			
T2 sociometric popularity	−.11	.01	.04
Step 4			
T1 felt social acceptance	−.13	.01	.05
Step 5			
T1 Felt Social Acceptance × T1 Sociometric Popularity	.18[*]	.03[*]	.08[*]

Note. βs are from entry into the model. T1 = Time 1; T2 = Time 2.

[†] $p < .10$.

[*] $p < .05$.