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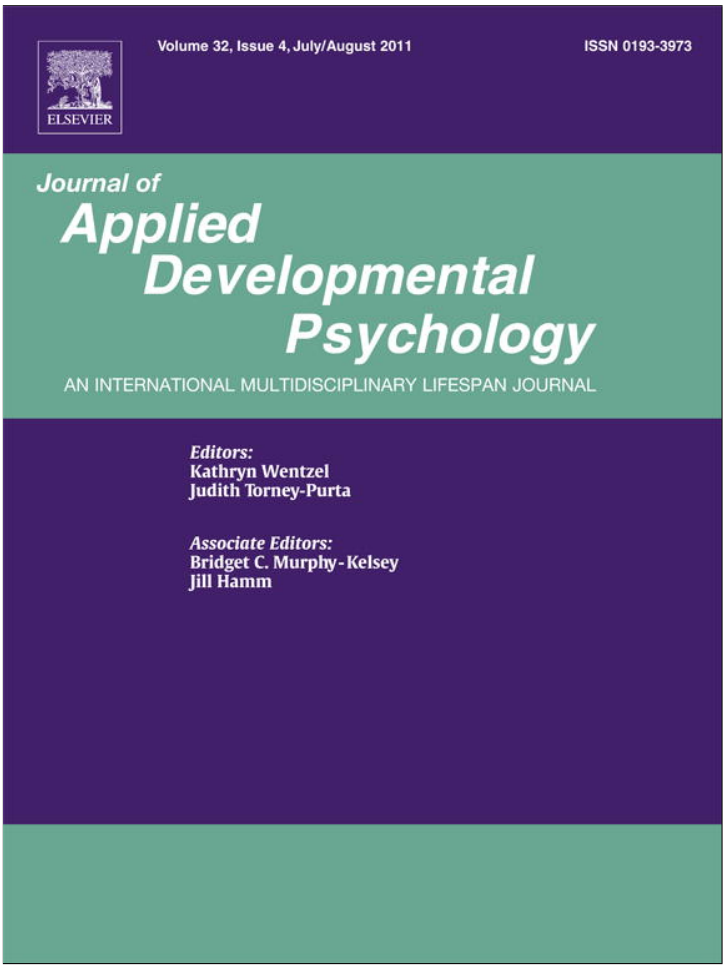

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Unpopularity and disliking among peers: Partially distinct dimensions of adolescents' social experiences

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ABSTRACT

The paper examines whether unpopularity and disliking among peers are partially distinct dimensions of adolescents' negative social experience. We recruited 418 students (187 boys, 231 girls, $M = 12.12$ years, $SD = 4.33$) from an urban junior high school. These early adolescents completed a peer nomination inventory assessing aspects of their social relationships with peers (i.e., popularity, liking, unpopularity and disliking), reciprocated friendships and behavioral reputations with peers (i.e., relationally and overtly aggressive, relationally and overtly victimized, withdrawn and prosocial). The participants also completed self-report inventories assessing their feelings of loneliness and peer victimization. In addition, academic performance data was obtained directly from school records. Hierarchical regression analyses showed that unpopularity and disliking among peers were associated with different behaviors. Unpopularity was also associated with reports of loneliness, relational victimization and low numbers of reciprocated friends, whereas disliking was associated with low academic performance. These results highlight the importance of multidimensional conceptualizations of negative social experiences in early adolescence and the differential risks associated with unpopularity and disliking among peers.

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Although much recent attention has been directed toward distinguishing between multiple forms of high peer regard (i.e., popularity and acceptance; LaFontana & Cillessen, 2002; Meijs, Cillessen, Scholte, Segers, & Spijkerman, 2010; Rose, Swenson, & Waller, 2004), researchers have yet to fully tease apart the dimensions of low regard among peers. The primary goal of this study was to further understanding of the dynamics of early adolescent peer groups by attempting to differentiate two aspects of negative social experience in the peer group—unpopularity and disliking (social rejection) by peers.

It is fairly well established in the literature on adolescent peer relations that acceptance and popularity among peers are distinct constructs (Cillessen & Marks, 2011 review this literature). Acceptance is generally operationalized as an indicator of likability or positive regard from peers (Coie & Dodge, 1983; Coie, Dodge, & Coppotelli, 1982). It is a dyadic construct and reflects students' personal appraisals of their interactions with individual peers. In contrast, popularity is a shared recognition among peers or a group's consensus that a particular youth has achieved prestige, visibility, or high social status (Adler, Kless, & Adler, 1992). Popularity is not viewed as an indicator of liking by peers but rather is seen as a reputational construct involving power and status in the group (Lease, Kennedy, & Axelrod, 2002; Xie, Cairns, & Cairns, 1999). As Cillessen and Marks (2011) explain "… popularity is conceptually closer to the traditional sociometric dimension of social impact… the sum of 'like-most' and 'liked-least' nominations received, which is also an indicator of how socially visible someone is in a group, irrespective of the valence of the behavior that attracts others' attention." (pp. 28–29). The dominant analytic approach in this literature has been to compare the attributes associated with acceptance, calculate as standardized "like most" minus "like least" nominations, and popularity, calculated as standardized "most popular" minus "least popular" nominations. The rationale for calculating popularity in this way is that the composite popularity score is comparable to the acceptance score.

One byproduct of the existing analytic strategy is that unpopularity is not typically treated as a separate dimension of peer status. As a result we "… do not yet know [fully] the implications of including unpopularity as a separate status measure…" (Cillessen & Marks, 2011). Indeed, only a few studies have included unpopularity as a separate construct from popularity and acceptance (Lease, Musgrove, & Axelrod, 2002; Xie, Li, Boucher, Hutchins, & Cairns, 2006). What we

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are proposing, therefore, is that treating unpopularity as a distinct construct separable from both disliking and low-levels of popularity will allow for a fuller understanding of the peer landscape in early adolescence. In our view, early adolescents' social experiences are best understood using a framework which includes two partially independent preference-based dimensions (i.e., liking and disliking or social rejection among peers) and two status-based dimensions (popularity and unpopularity among peers).

We conceptualized unpopularity as a reputation-based construct which reflects individuals' low social standing, influence, and power with peers. Unpopularity might be reflected in passive behavioral attributes such as social withdrawal, and might also increase an adolescent's vulnerability to mistreatment or victimization by peers. In contrast, we did not view social rejection as an indicator of low social standing among peers, but rather as a preference-based construct or an affective reaction by peers to aversive child attributes or behaviors (LaFontana & Cillessen, 2002). That is, disliking incorporates negative attitudes by peers.

From the perspective of this formulation, we would view unpopularity and disliking as partially distinct social phenomena. In fact, we might expect there to be some highly popular adolescents who are actually disliked by a large subset of their peers. Consider, in particular, those popular youths who achieve their high status through aversive or manipulative behavioral strategies (Cillessen & Mayeux, 2004; Cillessen & Rose, 2005; Lease, Kennedy et al., 2002; Neal, 2010). Likewise, adolescents who are characterized by low social power or prestige do not necessarily engage in social behaviors (e.g., aggression or other disruptive behaviors) that would lead to negative affective reactions from their peers and disliking nominations. These students are likely highly visible in the peer group because they are the targets of overt mistreatment by higher status peers. Victimization of lower status youth is a highly visible mechanism through which peers seek to establish and maintain their dominance and leadership in the peer group (Pellegrini, 2002).

A few researchers have distinguished between these two forms of low regard by peers and their findings provide evidence supporting the focus of our study. For example, Lease and her colleagues used cluster analytic procedures to identify three distinct groups of low-status youth: a group low on perceived popularity and social dominance, a disliked group, and a group that was low on all three dimensions (perceived popularity, dominance, and liking) (Lease, Musgrove et al., 2002). Likewise, LaFontana and Cillessen (2002) hypothesized that unpopular children are not disliked, but are seen by peers as "not possessing the social skills to rise from the bottom of the hierarchy" (p. 645). Similar conclusions were reached by Xie et al. (2006) based on first-, fourth- and seventh-grade African American students' narrative descriptions of popular and unpopular boys and girls. Taken together, these studies support the view that unpopularity and disliking are separable constructs. We sought to build on this research by examining the associations between a broad range of behavioral reputation variables and unpopularity versus disliking among peers in early adolescence. We also sought to extend this literature by looking at the differential academic and socio-emotional correlates of low regard among peers.

An important reason for researchers to move forward in distinguishing unpopularity and disliking among peers is that this approach may allow for a more nuanced perspective on risk. At least in childhood, disliking and aggression are strongly correlated (e.g., Dodge, 1983; Haselager, Cillessen, Van Lieshout, Riksen-Walraven, & Hartup, 2002; Kupersmidt, Coie, & Dodge, 1990), although the nature of this linkage may evolve over the course of development (Cillessen & Mayeux, 2004). In turn, aggressive behavioral dispositions can be indicative of trajectories toward antisocial outcomes (Coie, Terry, Lenox, Lochman, & Hyman, 1995; Dodge et al., 2006; Kupersmidt & Coie, 1990). On the other hand, our theoretical conceptualization of unpopularity is that this construct is likely to be an indicator of passive and submissive behavior as well as a low position in the peer group hierarchy. We would expect unpopularity to be associated with ostracism and mistreatment by peers, and resulting high levels of internalized distress. Of course, we would not predict that there is full specificity in the trajectories of risk, but rather contend that a more multifaceted understanding of negative social experiences in the peer group would enhance the efficiency of our current predictive models.

To some extent, our conceptualization of unpopularity might be typified by the group of bullied youth who Olweus (1978, 1993, 1997) initially labeled *whipping boys*. The majority of these victimized youth are perceived to be "easy marks" by peers because they are socially inhibited, submissive and withdrawn (Rodkin & Hodges, 2003; Schwartz, Dodge, & Coie, 1993). Peer victimization in childhood is associated with friendlessness and is a powerful predictor of internalized distress (Craig, 1998; Crick & Grotpeter, 1996; Dill, Vernberg, Fonagy, Twemlow, & Gamm, 2004; Hodges & Perry, 1999).

Our hypotheses also harken back to long-existing themes in the research on peer rejection that first appeared over a decade ago (Crick & Ladd, 1993; Parkhurst & Asher, 1992). Previous investigators have emphasized distinctions between rejected children whose social difficulties reflect aggressive or aversive behaviors, and a more submissive or passive subgroup (e.g., Boivin, Thomassin, & Alain, 1989; Cillessen, Van Ijzendoorn, Van Lieshout, & Hartup, 1992; Hymel, Bowker, & Woody, 1993; Parkhurst & Asher, 1992). Nonetheless, we suggest that an explicit focus on unpopularity as an indicator of a lack of status in the peer group, and disliking as an affective reaction by the peer group, will provide a more ecologically valid perspective on the peer group dynamics. This focus may be especially relevant for early adolescence given the importance of social hierarchies during this development period (Eder, 1995).

In the current study, we used peer nomination items (i.e., *not popular* and *like-least*) to distinguish adolescents who are unpopular among their peers from adolescents who are actively disliked. For each dimension of negative peer group experience, participants received a score on a continuous scale calculated by using the number of nominations he or she received for each item, standardized within grade. We then examined evidence that there are distinct patterns of correlates for unpopularity and social rejection. Specifically, we considered behavioral reputations among peers, self-reports of internalized distress, reciprocated friendships, and academic outcomes. Our study included assessment of positive regard among peers (i.e., *popular* and *like-most*). Because positive and negative dimensions of peer experiences are not completely independent (Bukowski, Sippola, Hoza, & Newcomb, 2002), popularity and liking among peers were entered as control variables in our analyses.

We expected that unpopularity would be correlated with victimization by peers (LaFontana & Cillessen, 2002; Xie et al., 2006), and social withdrawal (Lease, Kennedy et al., 2002; Lease, Musgrove et al., 2002). We also anticipated that unpopularity would be associated with internalized distress and the perception that one is the target of peer aggression. This latter prediction is consistent with past research on passive victims, a subgroup of victimized youth who are sad, shy and anxious (Crick & Grotpeter, 1996; Hodges & Perry, 1999). The prediction is also supported by the finding that adolescents who identify with low-status crowds report greater internalized distress than other adolescents (Prinstein & La Greca, 2002). We anticipated that unpopularity would be associated with friendlessness. In early adolescence, affiliating with low-status individuals is a social liability and as a result, youth avoid these individuals in an effort to maintain their own status in the peer group (Brown, Mory, & Kinney, 1994).

Based on previous findings with both child and adolescent samples, we expected that social rejection would be associated with overt and relational aggression (Cillessen & Mayeux, 2004; Rubin, Bukowski, & Parker, 2006). We also anticipated that social rejection would be negatively associated with prosociality among peers. A

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consistent finding across studies is that peer-rejected youth are set apart from better-accepted peers by their use of overt and relational forms of aggression in the absence of other redeeming behavioral characteristics or social competencies (e.g., Farmer, Estell, Bishop, O'Neal, & Cairns, 2003; Hawley, 2003). In terms of adjustment risks, we anticipated that social rejection would be associated with academic disengagement. This latter prediction was based on Becker and Luthar's (2007) recent finding that, among both high-income suburban adolescents and low-income urban adolescents, academic disengagement was associated with low acceptance. In both the suburban and urban contexts, youth strongly admired good students. Also in line with this prediction, Lease, Musgrove et al. (2002) identified a cluster of *disliked* children who were described by peers as being inattentive in the classroom and devaluing school.

In attempting to differentiate these two constructs, we were particularly focused on early adolescence as a unique developmental epoch. Twelve- and thirteen-year-old middle-school students were selected for our sample, given evidence that the peer status hierarchy is more salient to individuals during this developmental period than it is in either childhood (LaFontana & Cillessen, 1999) or later in adolescence (Eder, 1995). Indeed, when Eder's (1995) Woodview Middle School participants transitioned to high school they explained how the importance and restrictiveness of social hierarchies began to dwindle. Low status individuals "… found that they had more opportunities to get involved in extracurricular activities and to gain a sense of meaningful group acceptance, making them feel more socially competent. Some high school students reported being less intimidated by classmates in other groups, and high school students in general had more contact across cliques" (p. 160). Other researchers have provided evidence that early adolescents have pronounced concerns about their own and others' social standing among peers (de Bruyn & Cillessen, 2006; Eder, 1995; Gorman, Kim, & Schimmelbusch, 2002; Hersch, 1998). Given this increased focus on the status hierarchy, we felt that this age group would afford us the opportunity to examine whether unpopularity and disliking among peers were unique constructs.

In addition to our primary objective, we were also guided by an exploratory goal. That is, we sought to examine whether the behavioral reputation, socio-emotional and academic correlates of unpopularity and disliking among peers were moderated by gender. A number of previous studies have found gender differences in the determinants of popularity and liking (e.g., Cillessen & Mayeux, 2004; Prinstein & Cillessen, 2003; Rose et al., 2004; Xie et al., 1999). For example, popularity is more strongly associated with relational aggression for girls than boys (Cillessen & Mayeux, 2004). There is also some evidence, among elementary school children, that the behavioral correlates of low social regard differ for boys and girls. Lease, Musgrove et al. (2002) found that within their *disliked* cluster, boys more than girls were identified as odd and impulsive. By contrast, disliked girls more than boys were described as aggressive, inattentive, and low on prosociality. In addition, Lease, Kennedy et al. (2002) found that disruptive and bullying behaviors were associated with low popularity among boys and not among girls. Rubin and his colleagues (for a review of this literature see Rubin, Coplan, & Bowker, 2009) suggest that being non-assertive, socially withdrawn and quiet is more of a social liability for boys than girls. The authors explain that these behaviors may carry greater social risks for boys because they are at odds with societal and cultural expectations for males.

Although equivocal, there is also some evidence that the psychosocial outcomes associated with negative social experiences in the peer group differ for boys and girls (Cillessen & Mayeux, 2007; Crick & Ladd, 1993; Hanisch & Guerra, 2002; Lease, Musgrove et al., 2002). Given these findings, it seemed important to consider whether the pattern of relations between unpopularity and disliking among peers differed for boys and girls in early adolescence. We did not generate a priori hypotheses regarding the potential gender effects but rather considered these analyses exploratory.

The present study

The present study was designed to address two primary objectives. First, we sought to distinguish between two aspects of negative social experiences in early adolescence—unpopularity and disliking among peers. Our goal was to identify the behavioral reputation variables and the socio-emotional and academic adjustment indices differentially associated with these two constructs. Second, we explored whether the behavioral reputation, socio-emotional and academic correlates of unpopularity, and disliking among peers in early adolescence were moderated by gender.

Method

Participants

Participants were 418 sixth- and seventh-grade students (187 boys, 231 girls, $M = 12.12$ years, $SD = 4.33$) from a moderately sized junior high school in a middle-class suburban section of Los Angeles County. Eighty percent of the students at the school came from the surrounding neighborhoods whereas the remaining 20% were bused in from neighborhoods served by over-crowded schools in the district. Consistent with the ethnic/racial composition of the school population, the participants were predominately from Hispanic American and European American backgrounds. The ethnic/racial composition of the sample, assessed via adolescents' self-report, was as follows: 36% Hispanic, 15% European American, 7% African American, 8% Asian American, 6% Middle Eastern, and 28% other or unclassified (e.g., Armenian, mixed race/ethnicity, Native American).

We sent written consent letters home with 586 sixth- and seventh-graders. The school also included students involved in a self-contained magnet program and students who were enrolled in "English as a Second Language" classes. Following the recommendations of school officials, we did not attempt to include these latter students in the project. The remaining sixth- and seventh-grade-students ($N = 586$) were given permission slips to be delivered to parents or guardians. Written parental consent was obtained for all participants, who also indicated in writing that they were willing to participate in the project. One hundred and thirty students (22.88% of the eligible students) did not participate in the project either because their parents denied permission or because they did not return their permission slips. Eighteen students in the sixth-grade and 20 students in the seventh-grade were absent during the data collection and subsequent make-up sessions. The participants represented 71.33% of the eligible population of sixth- and seventh-graders. This consent rate is typical for this type of research (Cillessen & Mayeux, 2004; Kelly, Schwartz, Gorman, & Nakamoto, 2008). Questionnaires were group-administered in the school's cafeteria, in sessions lasting approximately 50 min.

Questionnaire preparation

When peer-report sociometric and behavioral nomination measures are used in elementary school, each participant is typically asked to evaluate every student in his or her classroom (e.g., Hymel, 1986; Ladd & Oden, 1979; Singleton & Asher, 1977). This approach is not practical in a junior high school setting, because students encounter a large number of peers in different classes. Accordingly, we adopted an approach similar to that used by Gorman et al. (2002) with a high school sample. We generated four alphabetized rosters for both grade levels. Each list contained the ID codes and alphabetized names of a random sub-sample of all of the students that had parental permission to participate in the project ($n = 456$). The lists contained names alphabetized by first name preceded by an ID code. Each participant

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was given one randomly selected list of his or her grade-mates to serve as a stimulus for the peer nomination interview. The lists were distributed such that each participant was evaluated by approximately 25% of the consenting participants in his or her grade level. This approach should lead to highly reliable estimates because there are a relatively large number of raters for each child. Consistent with this suggestion, past studies with similar methodology have produced indices with strong psychometric properties (Gorman et al., 2002; Schwartz, Gorman, Nakamoto, & McKay, 2006).

Materials

We relied on a multi-informant approach with data obtained from peer-nominations, self-reports and review of school records. Peer-nomination measures were used to identify students' liking, popularity, disliking and unpopularity among peers, behavioral reputations among peers and reciprocal friendships. Students also completed self-report inventories assessing their loneliness and perceptions that they were being victimized among peers. Grade point averages (GPAs) obtained from school records were used to gauge students' academic performance.

Peer nomination inventory

A 16-item peer-nomination inventory was group administered to the participants. The inventory included a series of descriptors that focused on students' social experiences with their peers as well as their behavioral reputation. Each descriptor was read aloud by a trained research assistant and participants were asked to list the ID codes of up to nine students who fit each descriptor.

Four aspects of students' social experiences with their peers were assessed. They included popularity ("kids that are popular"), unpopularity ("kids that are NOT popular"), liking ("kids that you really like"), and disliking among peers ("kids that you don't like much"). Four social experience scores were calculated for each participant. Popularity, unpopularity, liking and disliking for each person were represented with a score on a continuous scale calculated by using the number of nominations he or she received for each item, standardized within grade.

Six dimensions of students' social reputations among peers were also assessed. Two items were included for each behavioral dimension. We assessed prosociality ("shares with other kids," "likes to help other kids"; $r = .80$, $p < .001$), relational aggression ("tries to be mean to other kids by ignoring or excluding them," "gossips or says mean things about other kids"; $r = .77$, $p < .001$), overt aggression ("hits or pushes other kids," "starts fights with other kids by punching or pushing them"; $r = .66$, $p < .001$), relational victimization ("other kids gossip about or say mean things about them," "gets left out of fun games, excluded or ignored when other kids are trying to hurt their feelings"; $r = .21$, $p < .001$), overt victimization ("gets hit, pushed or bullied by other kids," "gets beat up by other kids"; $r = .51$, $p < .001$) and social withdrawal ("would rather play alone than with other kids," "would rather be alone than with other kids"; $r = .57$, $p < .001$).

With the exception of relational victimization, the internal consistency estimates for all of the behavioral scales were within the acceptable range (Pedhauzer & Pedhauzer Schmelkin, 1991). For later analysis, we generated summary variables for prosociality, relational aggression, overt aggression, overt victimization and withdrawal. The summary variables were based on the mean number of nominations received by each child, for the two items tapping each behavioral construct. Rather than exclude relational victimization as a construct from later analyses, we opted instead to calculate a relational victimization variable based on the number of nominations received by each child for the item "gets left out of fun games, is excluded or ignored when other kids are trying to hurt their feelings," standardized within grade. We did this because when we examined the pattern of correlates for each of the behavioral reputation items, it was evident that the other item intended to tap relational victimization did not discriminate between aggression and victimization. We are not certain why the item "other kids gossip about or say mean things about them" failed to discriminate between aggression and victimization. One possibility is that the survey administrators failed to clearly enunciate *about them* in the item and the participants nominated the perpetrators, kids who gossiped or said mean things about others, rather than the victims or recipients of the behavior.

Friendship

Participants were also asked to indicate their really good friends on an alphabetized list of all the consenting adolescents in their grade. They were instructed that they could circle as many or as few names as they liked. Following past research (Bukowski & Hoza, 1989; Price & Ladd, 1986), participants were classified as friends only if they reciprocally nominated each other. The mean number of friends that each participant had was 7.99 ($SD = 5.52$).

Loneliness and social dissatisfaction questionnaire

Participants completed the Loneliness and Social Dissatisfaction Questionnaire, a frequently used and well-validated scale assessing children's loneliness (e.g., "I'm lonely at school") and social dissatisfaction with peers (e.g., "I feel left out of things at school"; Asher & Wheeler, 1985). This self-report questionnaire includes 16 items that are designed to tap loneliness and dissatisfaction with peer relationships. Participants rated the accuracy of each item on a scale ranging from 1 (*that's not true about me at all*) to 5 (*that's always true about me*), with higher scores indicative of greater loneliness. In the present study, the internal reliability of the questionnaire was $\alpha = .89$, $p < .001$.

Self-reported victimization questionnaire

Participants completed the Social Experiences Questionnaire (SEQ), developed by Crick and Grotpeter (1996). This self-report inventory includes five items that assess how often individuals feel that they are being relationally victimized (e.g., "How often has another kid tried to keep others from liking you by saying mean things about you?"). It also includes three items which assess how often individuals feel that they are being overtly victimized by peers at school (e.g., "How often do you get hit by another kid at school?"; Crick & Grotpeter, 1996). Participants rate the accuracy of each item on a scale ranging from 1 (*never*) to 5 (*all the time*), with higher scores indicating greater reported victimization by peers. We conducted a principal-component analysis with varimax rotation using the full eight item scale. This was done to assess whether relational victimization and overt victimization emerged as separate aspects of peer treatment in the current study. This analysis yielded the two predicted factors: (a) relational victimization, which accounted for 49.5% of the variation; and (b) overt victimization, which accounted for 11.4% of the variation. In the present study, the reliability of the subscales was, $\alpha = .80$ and $\alpha = .78$, for the relational victimization and overt victimization subscales, respectively.

Academic functioning

Participants' letter grades in three core academic subjects (i.e., reading, math and science) were obtained from school records. School records were reviewed in the summer following the data collection. We assigned numerical scores to letter grades in reading, math and science for the full school year using a five-point scale ("F" = 1 to "A" = 5). GPA was calculated as the mean of these three scores. Agreement between the scores in the three core academic subject areas was moderate ($\alpha = .81$).

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Results

Analysis strategy

Two main questions were examined. First, we examined if we could distinguish two aspects of negative social experiences in early adolescence — unpopularity and disliking among peers. We sought to identify the behavioral reputation variables and the socio-emotional and academic adjustment indices differentially associated with these two constructs. Second, we explored whether the behavioral and socio-emotional correlates of disliking and unpopularity among peers in early adolescence were moderated by gender. These questions were examined using two sets of analyses. Correlations were computed between the social experience variables (i.e., liking, popularity, disliking and unpopularity) and the behavioral reputation variables (i.e., relational aggression, overt aggression, relational victimization, overt victimization, prosociality and withdrawal), the variables measuring students' socio-emotional (i.e., loneliness, self-reported overt victimization, self-reported relational victimization, reciprocal friendship) and academic adjustment (i.e., GPA) at school. Next, using hierarchical regression analyses, we examined the unique contributions of liking, disliking, popularity and unpopularity in predicting the behavioral reputation variables and students' socio-emotional and academic adjustment at school.

Separate models were specified for each of the criterion variables. Gender, liking, popularity, disliking and unpopularity were entered in Step 1. In Step 2, we tested the moderating effect of gender by simultaneously entering the gender by liking, gender by disliking, gender by popularity and gender by unpopularity terms. The summary of the hierarchical regression analyses focuses on the unique variance accounted for by disliking and unpopularity in predicting students' peer reported behavioral reputation and socio-emotional and academic adjustment at school. We coded gender as a dichotomous variable (0 = boys, 1 = girls).

In our models all four dimensions of social experience were included simultaneously at each step. Although our focus was on negative dimensions of social relationships (i.e., unpopularity and disliking), popularity and liking among peers were included as control variables. We adopted this approach in order to determine the unique contribution of unpopularity and disliking in predicting our criterion variables. The regression parameters for the variables entered on Step 1 assess the unique contribution of each main effect term given that the prediction associated with all other main effects is already removed from the criterion variables.

Preliminary analyses

As a first step in the analyses, we examined the distribution of each of the variables. The variables tended to be positively skewed, with relatively few adolescents having extreme values. Accordingly, we applied log linear transformations to reduce the potential influence of outliers. When we ran our models using the log-transformed data, the results were nearly identical to those obtained using the untransformed data. The models presented in the present paper use the untransformed data for ease of interpretation.

Bivariate correlations

Table 1 depicts the pattern of correlations between the four indices of social experience, the peer-reported behavioral reputation variables, and the indices of socio-emotional and academic adjustment. Of central interest, was the relation between disliking and unpopularity among peers and the other social experience variables, behavioral reputation variables, and the socio-emotional and academic variables. There was a small to moderate positive correlation between unpopularity and disliking among peers, ($r = .38$, $p < .001$). The correlations in Table 1 suggest a different pattern of relations between disliking and unpopularity among peers and the behavioral reputation, socio-emotional and academic adjustment variables. Following the procedure outlined by Steiger (1980) to test dependent Pearson *r*'s, we evaluated whether the behavioral reputation and socio-emotional adjustment variables correlated to a significantly different degree with disliking and unpopularity among peers. Overt aggression [$t(415) = 6.94$, $p < .01$] and relational aggression [$t(415) = 9.18$, $p < .01$] were more strongly correlated with disliking than unpopularity among peers. In contrast, overt victimization [$t(415) = -3.87$, $p < .01$], relational victimization [$t(415) = -3.51$, $p < .01$] and withdrawal [$t(415) = -4.37$, $p < .01$] were more strongly associated with unpopularity than disliking among peers.

Table 1
Correlations between the indices of social experience, peer reported behavioral reputation and the socio-emotional and academic adjustment variables.

	Liking	Popularity	Disliking	Unpopularity
Social experience				
Liking	–			
Popularity	.64***	–		
Disliking	.14**	.27***	–	
Unpopularity	.00	−.16**	.38***	–
Peer reported behavioral reputation				
Overt aggression	.13*	.23***	.47***	.13*
Relational aggression	.40***	.63***	.53***	.10
Overt victimization	−.05	−.08	.27***	.46***
Relational victimization	−.02	−.05	.31***	.48***
Withdrawal	−.04	−.06	.20***	.42***
Prosociality	.76***	.46***	.07	.10*
Socio-emotional and academic adjustment				
Loneliness	−.13**	−.10*	.07	.20***
Self reported relational victimization	−.10*	−.06	.07	.13*
Self reported overt victimization	−.08	−.03	.07	.14**
GPA	.24***	.06	−.13**	−.04
Friendship	.59**	.44***	.05	−.12*
Gender	.26**	.19***	−.10*	−.14**

Note. Gender was coded as 0 = boys; 1 = girls.
*$p < .05$. **$p < .01$. ***$p < .001$.

Hierarchical regression analyses

We conducted a series of hierarchical regression analyses to uncover the unique contributions of disliking and unpopularity in predicting students' behavioral reputation and socio-emotional and academic adjustment. In Step 1 of all of the models, gender, popularity, liking, disliking and unpopularity were entered into the equation simultaneously. In Step 2, moderation by gender was tested by simultaneously entering the interactions of gender with the four indices of social experience (i.e., popularity, liking, disliking and unpopularity). In Tables 2 (behavioral reputation) and 3 (socio-emotional and academic adjustment), the standardized regression coefficients and squared semi-partial correlation coefficients (sr^2) are presented for each variable. In these analyses, the sr^2 measures the percent of variance in the outcome that is accounted for by each predictor independent of the prediction associated with all other terms that are already in the model. Type I error rates for the tests of *R*-square increment were controlled using Holm (1979) modified Bonferroni-type correction. We applied separate corrections for the tests of each individual step (i.e., separate corrections for Step 1 and Step 2).

Total model statistics

In each case, the total models were statistically significant at Step 1 (all *ps* < .001). The amount of variance explained by the predictors in accounting for the behavioral reputation variables was as follows:

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Table 2
Summary of hierarchical regression analyses predicting peer-reported behavioral reputation from gender and the social experience variables.

	Overt aggression		Relational aggression		Overt victimization		Relational victimization		Withdrawal		Prosociality	
Step and measure	β	sr^2	β	sr^2	β	sr^2	β	sr^2	β	sr^2	β	sr^2
Step 1												
Gender	−.41***	.15	.05	.00	−.35***	.11	−.04	.00	−.08	.01	.14***	.02
Liking	.11	.01	.00	.00	.01	.00	−.03	.00	−.06	.00	.72***	.29
Popularity	.12*	.01	.53***	.14	.01	.00	−.01	.00	.06	.00	.02	.00
Disliking	.41***	.12	.37***	.10	.10	.00	.15**	.02	.03	.00	−.07*	.00
Unpopularity	−.06	.00	.05	.00	.38***	.11	.42***	.13	.41***	.13	.15***	.02
Step 2												
Gender × liking	−.13	.00	.13	.00	−.15	.00	−.20*	.01	.07	.00	.18**	.01
Gender × popularity	−.14	.00	.26**	.01	.03	.00	.26**	.01	−.05	.00	−.02	.00
Gender × disliking	−.44***	.06	.00	.00	−.12	.02	−.02	.00	.01	.00	.02	.00
Gender × unpopularity	.06	.00	.04	.00	−.21**	.02	−.09	.00	−.11	.00	.04	.00

Note. sr^2 is the squared semipartial correlation coefficient, the percentage of variance accounted for uniquely by the parameter.
*$p < .05$. **$p < .01$. ***$p < .001$.

overt aggression ($\Delta R^2 = .39$, $p < .001$), relational aggression ($\Delta R^2 = .54$, $p < .001$), overt victimization ($\Delta R^2 = .34$, $p < .001$), relational victimization ($\Delta R^2 = .26$, $p < .001$), withdrawal ($\Delta R^2 = .19$, $p < .001$), and prosociality ($\Delta R^2 = .61$, $p < .001$).

The predictors also accounted for a significant proportion of variance in explaining the socio-emotional and academic adjustment variables; loneliness ($\Delta R^2 = .07$, $p < .001$), self-reported overt victimization ($\Delta R^2 = .07$, $p < .001$), self-reported relational victimization ($\Delta R^2 = .04$, $p < .001$), GPA ($\Delta R^2 = .09$, $p < .001$) and reciprocal friendship ($\Delta R^2 = .39$, $p < .001$).

Only two of the 11 models were statistically significant at Step 2; overt aggression ($\Delta R^2 = .11$, $p < .01$) and overt victimization ($\Delta R^2 = .05$, $p < .01$).

Main effects of liking

Consistent with past research, liking uniquely predicted prosociality ($\beta = .72$, $p < .001$), GPA ($\beta = .31$, $p < .001$) and reciprocal friendship ($\beta = .51$, $p < .001$). Liking also negatively predicted loneliness ($\beta = -.13$, $p < .05$).

Main effects of popularity

Consistent with past research, popularity uniquely predicted overt aggression ($\beta = .12$, $p < .05$) and relational aggression ($\beta = .53$, $p < .001$).

Main effects of disliking

Disliking uniquely predicted overt aggression ($\beta = .41$, $p < .001$), relational aggression ($\beta = .37$, $p < .001$) and relational victimization ($\beta = .15$, $p < .01$). Disliking also negatively predicted prosociality ($\beta = -.07$, $p < .05$) and GPA ($\beta = -.14$, $p < .05$).

Main effects of unpopularity

Unpopularity among peers predicted overt victimization ($\beta = .38$, $p < .001$), relational victimization ($\beta = .42$, $p < .001$), withdrawal ($\beta = .41$, $p < .001$), and prosociality ($\beta = .15$, $p < .001$). It also predicted loneliness ($\beta = .18$, $p < .01$) and self-reported relational victimization ($\beta = .15$, $p < .05$) among peers. In addition, unpopularity negatively predicted reciprocal friendship ($\beta = -.10$, $p < .05$).

Moderation by gender

Step 2 explained additional variance for two of the behavioral reputation variables; overt aggression ($\Delta R^2 = .11$, $p < .01$) and overt victimization ($\Delta R^2 = .05$, $p < .01$). Step 2 did not reliably explain any additional variance for any of the models predicting students' socio-emotional and academic adjustment. We ran the regression analyses separately for boys and girls. Also, to aid interpretation, a graph was created for both interactions. The interactions were interpreted by focusing on the differential slopes of the regression lines for girls versus boys. The results of the regression analyses showed that

Table 3
Summary of hierarchical regression analyses predicting the indices of socio-emotional and academic adjustment from gender and the social experience variables.

	Loneliness		Self-Reported overt victimization		Self-Reported relational victimization		GPA		Reciprocal Friendship	
Step and measure	β	sr^2	β	sr^2	β	sr^2	β	sr^2	β	sr^2
Step 1										
Gender	−.11*	.01	−.22***	.04	−.11*	.01	.06	.00	.09*	.01
Liking	−.13*	.01	−.07	.00	−.12	.01	.31***	.05	.51***	.15
Popularity	.03	.00	.04	.00	.10	.00	−.11	.01	.08	.00
Disliking	.00	.00	.01	.00	−.01	.00	−.14*	.01	.00	.00
Unpopularity	.18**	.03	.10	.01	.15*	.02	.00	.00	−.10*	.01
Step 2										
Gender × liking	.10	.00	.28*	.02	.26*	.01	.04	.00	−.01	.00
Gender × popularity	−.15	.00	−.29*	.01	−.18	.01	−.15	.00	−.09	.00
Gender × disliking	.14	.01	.09	.00	.10	.00	−.01	.00	.00	.00
Gender × unpopularity	−.13	.01	−.11	.01	−.12	.01	.04	.00	.04	.00

Note. sr^2 is the squared semipartial correlation coefficient, the percentage of variance accounted for uniquely by the parameter.
*$p < .05$. **$p < .01$. ***$p < .001$.

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disliking was a stronger predictor of overt aggression for boys than girls ($\beta = .68$ vs. $\beta = .13$). Overt victimization was more strongly associated with unpopularity for boys than girls ($\beta = .41$ vs. $\beta = .37$).

In summary, liking was uniquely associated with prosociality, reciprocal friendship, high academic performance and low levels of self-reported loneliness. Popularity was uniquely associated with overt and relational aggression.

Turning to low regard among peers, unpopularity among peers was uniquely associated with overt victimization, relational victimization, withdrawal, and prosociality. Unpopularity was also associated with loneliness, self-reported relational victimization and having low numbers of reciprocated friendships. In contrast, disliking was uniquely associated with overt aggression, relational aggression, relational victimization and low prosociality. Disliking was also associated with low academic performance.

The patterns of relations were generally consistent for both boys and girls with two exceptions — disliking was more strongly associated with overt aggression for boys than girls and overt victimization was more strongly associated with unpopularity for boys than girls.

Discussion

A more nuanced understanding of the social dynamics of adolescent peer groups has emerged over the last decade as researchers have distinguished between two forms of high peer regard; liking and popularity among peers (Cillessen & Mayeux, 2004; Lease, Musgrove et al., 2002; Prinstein & Cillessen, 2003). We sought to build on the existing work by also distinguishing between two dimensions of negative social experiences among peers. We were particularly focused on psychosocial correlates of these two aspects of social difficulties among peers. The results of our analyses are generally supportive of our hypotheses and highlight the differential correlates of disliking and unpopularity in early adolescence.

As predicted, unpopularity and disliking among peers were modestly correlated and were linked with different behavioral reputation variables for both boys and girls. Unpopularity among peers was significantly and uniquely associated with overt victimization, relational victimization, withdrawal, and prosociality. In contrast, disliking was uniquely associated with overt aggression, relational aggression and relational victimization. Disliking was also negatively correlated with prosociality. Also consistent with our hypotheses, disliked adolescents engage in aversive behaviors and are the targets of retaliation whereas unpopular adolescents, although prosocial, are socially withdrawn and encounter mistreatment or victimization by peers. The link between unpopularity and social withdrawal is consistent with other research findings (LaFontana & Cillessen, 2002; Lease, Kennedy et al., 2002; Lease, Musgrove et al., 2002). In the context of these findings, it seems likely that the friendly overtures of unpopular youth are perceived as acquiescence and that these youth are taken advantage of by their peers (Fox & Boulton, 2006).

Conceptually the construct of unpopularity may seem to bear some similarity to classifications that have been present in the literature for some time. Most notably sociometric researchers have described a neglected subgroup. These are youth who are neither well-liked nor disliked, are not generally visible in the peer group, and are characterized by a behavioral profile that includes high social withdrawal and low aggression (Newcomb, Bukowski, & Pattee, 1993). Within the sociometric tradition the neglected status group is operationally defined as students who receive a social impact score of less than −1.0, a positive nomination score of less than 0, and a negative nomination score of less than 0. However, our analyses do not suggest that unpopularity can be linked to neglect. Unpopular youth are highly visible in the peer group. Moreover, unpopularity and disliking have a modest positive correlation.[1] Given the high visibility of peer victimization in the peer group (Pellegrini, 2002) it is not surprising that these youth draw attention from their peers. Indeed their nerdy image may make these youth the favorite targets of bullies.

The behavioral and social reputation variables that are correlated with unpopularity suggest that unpopular youth are more conceptually similar to the submissive-rejected subgroup identified in the sociometric literature (e.g., Boivin et al., 1989; Cillessen et al., 1992; Hymel et al., 1993; Parkhurst & Asher, 1992).

Unpopularity and disliking were correlated with different adjustment indices for both boys and girls. Unpopularity was associated with loneliness, self-reported relational victimization and having low numbers of reciprocated friendships. These findings are consistent with our prediction that unpopularity would be linked with ostracism and perceived mistreatment by peers, and also associated with high levels of internalized distress. Because highly unpopular youth are a social liability they lack friends who can serve a protective function and buffer them against the ill effects of their mistreatment (Schmidt & Bagwell, 2007).

Disliking was linked with low academic performance, a finding consistent with some prior research (Becker & Luthar, 2007; Lease, Musgrove et al., 2002). There are, however, inconsistencies in the literature. Indeed, other research finds that students who work hard at school are not de-valued by their peers (e.g., Luthar, 1995). Future research is needed to clarify the circumstances in which academic performance is associated with liking versus disliking among peers. As Schwartz et al. (2006) posit, it may be important to consider whether academic engagement and high-achievement at school are compatible with the values and behavioral orientations of the larger crowd structure (Brown, Classen, & Eicher, 1986).

Our models did not yield strong evidence to suggest that gender plays a large role in moderating the relations between the social experience variables and the behavioral reputation, socio-emotional and academic adjustment indices. Gender only added incrementally in the prediction of *two* of the behavioral reputation variables. The results showed that disliking was a stronger predictor of overt aggression for boys than girls. In addition, overt victimization was more strongly associated with unpopularity for boys than girls. The finding that unpopularity was more strongly linked with overt victimization for boys compared to girls is consistent with other research (e.g., Rubin et al., 2009). We were surprised that we did not find more in the way of gender differences. Previous investigators have reported considerable differences in the behavioral correlates of high status (Cillessen & Mayeux, 2004) as well as low status (Lease, Kennedy et al., 2002; Lease, Musgrove et al., 2002) among boys and girls. One possible interpretation of the behavioral data is that in early adolescence the behaviors that repel youth are not gender-specific. In terms of the adjustment indices, we found no evidence that gender played a moderating role. It might be the case that the negative social experiences that we focused on (unpopularity and disliking) carry the same risks for boys and girls in early adolescence.

We hesitate to draw strong conclusions about the gender results, however, because the present study only focused on a limited number of peer-reported behavioral reputation variables and indices of adjustment. Future studies would benefit from including a broader array of potential variables that might speak to the possibility that the correlates of low social regard differ for boys and girls. For example, being fashionable and wearing the right clothes, having social savoir faire, or being athletic might be gender-specific correlates of unpopularity. It seems likely that wearing the wrong clothes and

[1] We conducted a correlational analysis examining the relation between unpopularity and the sociometric dimension of social impact, calculated as the sum of standardized "like most" and "like least" nominations. There was a small to moderate positive correlation between unpopularity and social impact among peers, ($r = .25$, $p < .001$).

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lacking social knowledge or savoir faire would be more of a liability for girls than boys (Adler & Adler, 1998; Eder, 1985). In contrast, boys might be more likely than girls to be identified as unpopular if they are not athletic (Becker & Luthar, 2007; Eder & Kinney, 1995) and engage in gender-atypical behaviors (Sebald, 1981). Future research might also consider depressive symptoms, social anxiety and social avoidance as additional risk factors. We might predict that girls who are identified as a social liability because of their unpopular status would experience more social anxiety and seek to avoid social situations more than boys (Crick & Ladd, 1993).

In addition to looking at a wider array of behavioral reputation variables, we might also have found more differences in the behavioral and socio-emotional correlates of low social regard for boys and girls if we had examined race/ethnicity as a moderating variable. Research by Graham, Taylor, and Hudley (1998) shows that the behavioral attributes which early adolescent boys and girls value and admire in their peers vary as a function of both gender and race/ethnicity. They found that whereas both Caucasian boys and girls valued high-achieving students of both genders minority boys least-valued high achieving boys. Future research should, therefore, consider the role that race/ethnicity might play in moderating the relation between gender and behavioral style in predicting unpopularity and disliking among peers. We do not feel that we are in a good position to address this issue because the self-report measure of race/ethnicity that we used in the current study lacked precision. A refined measure of race/ethnicity is needed given that there likely is substantial diversity in belief systems, degree of acculturation, and ethnic self-concepts among students identified as belonging to the same ethnic/racial group (Phinney, 1996).

The finding that unpopularity added incrementally in the prediction of several of the behavioral reputation variables (overt and relational victimization, withdrawal and prosociality), number of reciprocated friends, internalized distress and self-reported relational victimization suggests that unpopularity is distinct from low levels of popularity. These results are consistent with ethnographic studies (Adler & Adler, 1998; Eder, 1995) and research on crowd formation (Brown et al., 1994), which emphasizes a dimension of social experience with peers that is linked to ostracism, mistreatment and low power. This dimension differs from simply not being high status or in the popular crowd. Instead of reflecting a lack of social power and low levels of, say, overt and relational aggression, being unpopular carries with it a host of potential adjustment issues related to having such a low rank in the social hierarchy.

The distinction we are making between unpopularity and low popularity among peers, parallels a distinction made in the literature on the relation between acceptance and rejection (Newcomb & Bukowski, 1983). This research indicates that acceptance and rejection among peers are not antagonistic concepts. In other words, not being liked among peers is not synonymous with being disliked or socially rejected. Additionally, not being disliked among peers is not synonymous with being liked. Recent empirical findings have emphasized this distinction even further (Bukowski, Sippola, Hoza, & Newcomb, 2000).

Before turning to our concluding comments, some potential limitations of this project should be identified. First, the results of our analyses cannot be generalized to developmental stages other than early adolescence. Future research is needed to examine the relation between disliking and unpopularity at different ages and to examine if the behaviors and socio-emotional and academic adjustment indices associated with each change across development. It seems likely that disliking and unpopularity will become increasingly distinct as individuals move from childhood toward pre-adolescence and become increasingly aware of their social standing among peers. When individuals enter early adolescence they are confronted with a more complex peer structure than they experienced earlier in development. In addition to being evaluated in terms of their likeability, group hierarchies are established and some students are identified as high in status and others as low in status. The salience of group hierarchies is coupled with early adolescents' heightened preoccupation with who is liked by whom and where individuals fit in the social hierarchy (Hersch, 1998). It might also be the case that the risks associated with unpopularity wane as individuals grow older and the peer social structure becomes more flexible (Eder, 1995).

Second, the correlational design of the present study did not allow for identification of the causal relations among the variables. One possibility is that students' behavioral reputation directly influences how they are perceived by peers. Alternatively, students' current reputation as unpopular or disliked by peers may influence how peers evaluate and judge their behaviors. It is also possible that students are perceived as unpopular or disliked among peers because of reputations they carried over from earlier grades. This seems especially likely if groups of students make school transitions together. Future research employing longitudinal designs is needed to explore these alternative explanations.

Finally, the present findings indicate a distinctive pattern of behaviors associated with disliking versus unpopularity. However, the same pattern may not emerge in all schools. Much may depend on the community being studied. A number of researchers have begun to examine the important role that contextual factors play in moderating the relation between adolescents' behaviors and their social status among peers (e.g., Becker & Luthar, 2007; Meisinger, Blake, Lease, Palardy, & Olejnik, 2007). For instance, Meisinger et al. (2007) found that the variables associated with perceived popularity varied as a function of the racial composition of the classroom. Drawing on this research, it seems likely that the behaviors associated with unpopularity and disliking will differ somewhat depending on the norms of the community being studied (Graham et al., 1998). The notion that the same behaviors are appraised and evaluated differently in different social contexts is fairly well-established (Wright, Giammarino, & Parad, 1986). Similarly, the relation between academic engagement and disliking might differ across contexts. What seems likely, however, is that unpopularity would be associated with internalized distress (i.e., loneliness), self-reported victimization and friendlessness across different social contexts. In terms of unpopularity, the stigma of affiliating with low status youth and the "sting" of being at the bottom of the social hierarchy would be the same (Prinstein & La Greca, 2002).

One question to consider in future research is the relation between the social standing variables (popularity versus unpopularity among peers) and conformity to the dominant norms of the peer group. Willingness to conform to the peer group and engage in risky behaviors such as substance use and early sexual experimentation may set apart highly popular from highly unpopular youth. Schwartz and Gorman (2011) argue that conformity plays an important role in the social lives of popular youth. Popular youth achieve and maintain their high status and prestige by adopting the values and behavioral orientations of the dominant peer group and to "fit in." Accordingly, "Students who exhibit behaviors that are inconsistent with [the peer group's] established norms will be unlikely to achieve high standing with their elite peers." (p. 247). In fact, we would hypothesize that failure to conform to the dominant peer group is a social liability and strongly predictive of unpopular status among peers.

In summary, our results demonstrate that in early adolescence disliking and unpopularity are partially distinct constructs, associated with different behavioral reputations among peers and different indices of socio-emotional and academic adjustment. A number of recent studies have focused on the "risks" associated with popularity among peers (e.g., Prinstein, Meade, & Cohen, 2003). The present results highlight the importance of treating liking, popularity, disliking and unpopularity as separate constructs in the prediction of risk. They also suggest that popularity is only "risky" in terms of more externalizing behaviors such as substance use (Mayeux, Sandstrom,

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& Cillessen, 2008). When it comes to assessing more internalized risk such as loneliness, the real risk lies in being unpopular (Prinstein & La Greca, 2002). A good deal of effort has been devoted to improving adolescents' experiences at school. A more nuanced understanding of adolescents' negative social experiences will likely help in these efforts.

The present study adds to the literature by moving beyond the research on subgroups of peer-rejected youth and the research on peer perceived popularity, which has tended to use a single status dimension (i.e., *popular*), toward a more refined view of social experiences in the peer group. In our conceptualization, early adolescents' social experiences are best understood using a framework which includes two partially independent preference-based dimensions (i.e., liking and disliking or social rejection among peers) and two partially independent status-based dimensions (popularity and unpopularity among peers).

References

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

Adler, P. A., Kless, S. J., & Adler, P. (1992). Socialization to gender roles: Popularity among elementary school boys and girls. *Sociology of Education*, *65*, 169–187.

Asher, S. R., & Wheeler, V. A. (1985). Children's loneliness: A comparison of rejected and neglected peer status. *Journal of Consulting and |Clinical Psychology*, *53*, 500–505.

Becker, B. E., & Luthar, S. S. (2007). Peer-perceived admiration and social preference: Contextual correlates of positive peer regard among suburban and urban adolescents. *Journal of Research on Adolescence*, *17*, 117–144.

Boivin, M., Thomassin, L., & Alain, M. (1989). Peer-rejection and self-perception among early elementary school children: Aggressive-rejectees vs. withdrawn-rejectees. In B. H. Schneider, G. Attili, J. Nadel, & R. P. Weissberg (Eds.), *Social competence in developmental perspective* (pp. 392–393). Boston, MA: Kluwer Academic.

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

Brown, B. B., Mory, M. S., & Kinney, D. (1994). Casting crowds in a relational perspective: Caricature, channel, and context. In R. Montemayor, G. G. Adams, & T. P. Gullotta (Eds.), *Advances in adolescent development. Personal relationships during adolescence*, *Vol. 6*. (pp. 123–167) Thousand Oaks, CA: Sage.

Bukowski, W. M., & Hoza, B. (1989). Popularity and friendship: Issues in theory, measurement, and outcome. In T. J. Berndt & G.W. Ladd (Eds.), *Peer relationships in child development* (pp. 15–45). Oxford, England: John Wiley & Sons.

Bukowski, W. M., Sippola, L., Hoza, B., & Newcomb, A. F. (2000). Pages from a sociometric notebook: An analysis of nomination and rating scale measures of acceptance, rejection, and social preference. In W. Damon (Series Ed.) and A. N. Cillessen & W. M. Bukowski (Vol. Eds.), *New directions for child and adolescent development: No. 88. Recent advances in the measurement of acceptance and rejection in the peer system* (pp. 11–26). San Francisco, CA: Jossey-Bass.

Bukowski, W. M., Sippola, L., Hoza, B., & Newcomb, A. F. (2002). A conceptual and empirical analysis of the association between the fundamental sociometric dimensions of acceptance, rejection and social preference. In A. H. N. Cillessen & W.M. Bukowski (Eds.), *Recent advances in the measurement of acceptance and rejection in the peer system. New directions in child and adolescent development*, *88*. (pp. 27–53) San Francisco, CA: Jossey-Bass.

Cillessen, A. H. N., & Marks, P. E. L. (2011). Conceptualizing and measuring popularity. In A. H. N. Cillessen, D. A. Schwartz, & L. Mayeux (Eds.), *Popularity in the peer system* (pp. 25–55). New York, NY: Guilford.

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

Cillessen, A. H. N., & Mayeux, L. (2007). Expectations and perceptions at school transitions: The role of peer status and aggression. *Journal of School Psychology*, *45*, 567–586.

Cillessen, A. H. N., & Rose, A. J. (2005). Understanding popularity in the peer system. *Current Directions in Psychological Science*, *14*, 102–105.

Cillessen, A. H., Van Ijzendoorn, H. W., Van Lieshout, C. F., & Hartup, W. W. (1992). Heterogeneity among peer-rejected boys: Subtypes and stabilities. *Child Development*, *63*, 893–905.

Coie, J. D., & Dodge, K. A. (1983). Continuities and changes in children's social status: A five-year study. *Merrill-Palmer Quarterly*, *29*, 261–281.

Coie, J. D., Dodge, K. A., & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. *Developmental Psychology*, *18*, 557–570.

Coie, J. D., Terry, R., Lenox, K., Lochman, J. E., & Hyman, C. (1995). Childhood peer rejection and aggression as predictors of stable patterns of adolescent disorder. *Development and Psychopathology*, *7*, 697–713.

Craig, W. (1998). The relationship among aggression types, depression, and anxiety in bullies, victims, and bully/victims. *Personality and Individual Differences*, *24*, 123–130.

Crick, N. R., & Grotpeter, J. K. (1996). Children's treatment by peers: Victims of relational and overt aggression. *Development and Psychopathology*, *8*, 367–380.

Crick, N. R., & Ladd, G. W. (1993). Children's perceptions of their peer experiences: Attributions, loneliness, social anxiety, and social avoidance. *Developmental Psychology*, *29*, 244–254.

de Bruyn, E. H., & Cillessen, A. H. N. (2006). Popularity in early adolescence: Prosocial and antisocial subtypes. *Journal of Adolescent Research*, *21*, 607–627.

Dill, E. J., Vernberg, E. M., Fonagy, P., Twemlow, S. W., & Gamm, B. K. (2004). Negative affect in victimized children: The roles of social withdrawal, peer rejection, and attitudes towards bullying. *Journal of Abnormal Child Psychology*, *32*, 159–173.

Dodge, K. A. (1983). Behavioral antecedents of peer social status. *Child Development*, *54*, 1386–1399.

Dodge, K.A., Coie, J.D., & Lynam, D. (2006). Aggression and antisocial behavior in youth. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.). *Handbook of child psychology, Vol. 3: Social, emotional, and personality development* (6th ed., pp. 719–788). Hoboken, NJ: Wiley.

Eder, D. (1985). The cycle of popularity: Interpersonal relations among female adolescents. *Sociology of Education*, *58*, 154–165.

Eder, D. (1995). Popularity and unpopularity in middle school. In C. C. Evans, D. Eder, & S. Parker (Eds.), *School talk: Gender and adolescent culture* (pp. 31–59). Newark, N. J: Rutgers University Press.

Eder, D., & Kinney, D. A. (1995). The effect of middle school extracurricular activities on adolescent's popularity and peer status. *Youth and Society*, *26*, 298–324.

Farmer, T., Estell, D., Bishop, J. L., O'Neal, K. K., & Cairns, B. (2003). Rejected bullies or popular leaders? The social relations of aggressive subtypes of rural African American early adolescents. *Developmental Psychology*, *39*, 992–1004.

Fox, C. L., & Boulton, M. J. (2006). Longitudinal associations between submissive/nonassertive behavior and different types of peer victimization. *Violence and Victims*, *21*, 383–400.

Gorman, A. H., Kim, J., & Schimmelbusch, A. (2002). The attributes adolescents associate with peer popularity and teacher preference. *Journal of School Psychology*, *40*, 143–165.

Graham, S., Taylor, A. Z., & Hudley, C. (1998). Exploring achievement among ethnic minority adolescents. *Journal of Educational Psychology*, *90*, 606–620.

Hanisch, L. D., & Guerra, N. G. (2002). A longitudinal analysis of patterns of adjustment following peer victimization. *Development and Psychopathology*, *14*, 69–89.

Haselager, G. J. T., Cillessen, A. H. N., Van Lieshout, C. F. M., Riksen-Walraven, A., & Hartup, W. W. (2002). Heterogeneity among peer-rejected boys across middle childhood: Developmental pathways of social behavior. *Developmental Psychology*, *38*, 446–456.

Hawley, P. H. (2003). Prosocial and coercive configurations of resource control in early adolescence: A case for the well-adapted Machiavellian. *Merrill-Palmer Quarterly*, *49*, 279–309.

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

Hodges, E. V. E., & Perry, D. G. (1999). Personal and interpersonal antecedents and consequences of victimization by peers. *Journal of Personality and Social Psychology*, *76*, 677–685.

Holm, S. (1979). A simple sequentially rejective multiple test procedure. *Scandinavian Journal of Statistics*, *6*, 65–70.

Hymel, S. (1986). Interpretations of peer behavior: Affective bias in childhood and adolescence. *Child Development*, *57*, 431–445.

Hymel, S., Bowker, A., & Woody, E. (1993). Aggressive versus withdrawn unpopular children: Variations in peer and self-perceptions in multiple domains. *Child Development*, *64*, 879–896.

Kelly, B., Schwartz, D., Gorman, A., & Nakamoto, J. (2008). Violent victimization in the community and children's subsequent peer rejection: The mediating role of emotion dysregulation. *Journal of Abnormal Child Psychology*, *36*, 175–185.

Kupersmidt, J. B., & Coie, J. D. (1990). Preadolescent peer status, and school adjustment as predictors of externalizing problems in adolescence. *Child Development*, *61*, 1350–1362.

Kupersmidt, J. B., Coie, J. D., & Dodge, K. A. (1990). The role of peer relationships in the development of disorder. In S. R. Asher, & J. D. Coie (Eds.), *Peer Rejection in Childhood* (pp. 274–305). New York, New York: Cambridge University Press.

Ladd, G. W., & Oden, S. L. (1979). The relationship between peer acceptance and children's ideas about helpfulness. *Child Development*, *50*, 402–408.

LaFontana, K. M., & Cillessen, A. H. N. (1999). Children's interpersonal perceptions as a function of sociometric and peer-perceived popularity. *Journal of Genetic Psychology*, *160*, 225–242.

LaFontana, K. M., & Cillessen, A. H. N. (2002). Children's stereotypes of popular and unpopular peers: A multimethod assessment. *Developmental Psychology*, *38*, 635–647.

Lease, A. M., Kennedy, C. A., & Axelrod, J. L. (2002). Children's social constructions of popularity. *Social Development*, *11*, 87–109.

Lease, A. M., Musgrove, K. T., & Axelrod, J. L. (2002). Dimensions of low social status in preadolescent peer groups: Likability, perceived popularity, and social dominance. *Social Development*, *11*, 508–533.

Luthar, S. S. (1995). Social competence in the school setting: Prospective cross-domain associations among inner-city teens. *Child Development*, *66*, 416–429.

Mayeux, L., Sandstrom, M., & Cillessen, A. H. N. (2008). Is being popular a risky proposition? *Journal of Research on Adolescence*, *18*, 49–74.

Meijs, N., Cillessen, A. H. N., Scholte, R. H. J., Segers, E., & Spijkerman, R. (2010). Social intelligence and academic achievement as predictors of adolescent popularity. *Journal of Youth and Adolescence*, *39*, 62–72.

Meisinger, E. B., Blake, J. J., Lease, A. M., Palardy, G. J., & Olejnik, S. F. (2007). Variant and invariant predictors of perceived popularity across majority-Black and majority-White classrooms. *Journal of School Psychology*, *45*, 21–44.

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Neal, J. W. (2010). Social aggression and social position in middle childhood and early adolescence: Burning bridges or building them? *The Journal of Early Adolescence*, *30*, 122–137.

Newcomb, A. F., & Bukowski, W. M. (1983). Social impact and social preference as determinants of children's group status. *Developmental Psychology*, *19*, 856–867.

Newcomb, A. F., Bukowski, W. M., & Pattee, L. (1993). Children's peer relations: A meta-analytic review of popular, rejected, neglected, controversial, and average sociometric status. *Psychological Bulletin*, *113*, 99–128.

Olweus, D. (1978). *Aggression in the schools: Bullies and their whipping boys.* Washington, DC: Hemisphere.

Olweus, D. (1993). Victimization by peers: Antecedents and long-term outcomes. In K. H. Rubin & J.B. Asendorpf (Eds.), *Social withdrawal, inhibition, and shyness in childhood* (pp. 315–342). Hillsdale, NJ: Lawrence Erlbaum.

Olweus, D. (1997). Tackling peer victimization with a school-based intervention program. In D. P. Fry & K. Björkqvist (Eds.), *Cultural variation in conflict resolution: Alternatives to violence* (pp. 215–231). Hillsdale, NJ: Lawrence Erlbaum.

Parkhurst, J. T., & Asher, S. R. (1992). Peer rejection in middle school: Subgroup differences in behavior, loneliness, and interpersonal concerns. *Developmental Psychology*, *28*, 231–241.

Pedhauzer, E. J., & Pedhauzer Schmelkin, L. P. (1991). *Measurement, design, and analysis: An integrated approach.* Hillsdale, NJ: Erlbaum.

Pellegrini, A. (2002). Bullying, victimization, and sexual harassment during the transition to middle school. *Educational Psychologist*, *37*, 151–163.

Phinney, J. (1996). When we talk about American ethnic groups, what do we mean? *American Psychologist*, *51*, 918–927.

Price, J. M., & Ladd, G. W. (1986). Assessment of children's friendships: Implications for social competence and social adjustment. *Advances in Behavioral Assessment of Children & Families*, *2*, 121–149.

Prinstein, M. J., & Cillessen, A. H. N. (2003). Forms and functions of adolescent peer aggression associated with high levels of peer status. *Merrill-Palmer Quarterly*, *49*, 310–342.

Prinstein, M. J., & La Greca, A. M. (2002). Peer crowd affiliation and internalizing distress in childhood and adolescence: A longitudinal follow-back study. *Journal of Research on Adolescence*, *12*, 325–351.

Prinstein, M. J., Meade, C. S., & Cohen, G. L. (2003). Adolescent oral sex, peer popularity, and perceptions of best friends' sexual behavior. *Journal of Pediatric Psychology*, *28*, 243–249.

Rodkin, P. C., & Hodges, E. V. E. (2003). Bullies and victims in the peer ecology: Four questions for psychologists and school professionals. *School Psychology Review*, *32*, 384–400.

Rose, A. J., Swenson, L. P., & Waller, E. M. (2004). Overt and relational aggression and perceived popularity: Developmental differences in concurrent and prospective relations. *Developmental Psychology*, *40*, 378–387.

Rubin, K. H., Bukowski, W., & Parker, J. (2006). Peer interactions, relationships, and groups. In N. Eisenberg (Ed.), *Handbook of child psychology: Social, emotional, and personality development* (6th ed., pp. 141–180). New York, NY: Wiley.

Rubin, K. H., Coplan, R. J., & Bowker, J. C. (2009). Social withdrawal in childhood. *Annual Review in Psychology*, *60*, 141–171.

Schmidt, M. E., & Bagwell, C. L. (2007). The protective role of friendships in overtly and relationally victimized boys and girls. *Merrill-Palmer Quarterly*, *53*, 439–460.

Schwartz, D., Dodge, K. A., & Coie, J. D. (1993). The emergence of chronic peer victimization in boys' play groups. *Child Development*, *64*, 1755–1772.

Schwartz, D., & Gorman, A. H. (2011). The high price of high status: Popularity as a mechanism of risk. In A. H. N. Cillessen, D. A. Schwartz, & L. Mayeux (Eds.), *Popularity in the peer system* (pp. 245–270). New York, NY: Guilford.

Schwartz, D., Gorman, A. H., Nakamoto, J., & McKay, T. (2006). Popularity, social acceptance, and aggression in adolescent peer groups: Links with academic performance and school attendance. *Developmental Psychology*, *42*, 1116–1127.

Sebald, H. (1981). Adolescents' concept of popularity and unpopularity, comparing 1960 with 1976. *Adolescence*, *16*, 187–193.

Singleton, L. C., & Asher, S. R. (1977). Peer preferences and social interaction among third-grade children in an integrated school district. *Journal of Educational Psychology*, *69*, 330–336.

Steiger, J. H. (1980). Test for comparing elements of a correlation matrix. *Psychological Bulletin*, *2*, 245–251.

Wright, J. C., Giammarino, M., & Parad, H. W. (1986). Social status in small groups: Individual-group similarity and the social "misfit". *Journal of Personality and Social Psychology*, *50*, 523–536.

Xie, H., Cairns, R. B., & Cairns, B. D. (1999). Social networks and configurations in inner-city schools: Aggression, popularity, and implications for students with EBD. *Journal of Emotional and Behavioral Disorders*, *7*, 147–155.

Xie, H., Li, Y., Boucher, S. M., Hutchins, B. C., & Cairns, B. D. (2006). What makes a girl (or a boy) popular (or unpopular)? African American children's perceptions and developmental differences. *Developmental Psychology*, *42*, 599–612.