

Childhood Peer Reputation as a Predictor of Competence and Symptoms 10 Years Later

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This study examined the differential developmental significance of multiple domains of peer reputation in childhood for current and future competence and symptoms. Participants were 205 children from a normative school cohort who completed assessments in grades 3–6 and then again 10 years later. Through re-analysis of original data from the Revised Class Play (RCP; $N = 612$), new narrow-band subscales were examined as distinct correlates and predictors of competence in age-relevant developmental tasks and psychological well being as indexed by internalizing symptoms. Findings support the differentiation of peer exclusion, withdrawal, and sadness within the broad sensitive-isolated domain of reputation, as well as the distinctive meaning of reputations for Popularity-Leadership and Prosocial Behavior within the broad Sociable-Leader domain. When the Sensitive-Isolated predictors were considered, academic and job competence at the 10-year follow-up were predicted uniquely and negatively by peer exclusion, problems in the social and romantic domains were predicted distinctively by withdrawal from peers, and internalizing symptoms were uniquely predicted by childhood reputation as Sad-Sensitive. When the Sociable-Leader predictors were considered, academic and (for ethnic minority youth) job success was predicted by a Prosocial reputation, social success was forecasted by Popularity-Leadership, and romantic competence was predicted positively by Popularity-Leadership and negatively by Prosocial reputation. Negative academic and job outcomes were also predicted by a childhood reputation as Aggressive-Disruptive. Results are discussed in relation to conceptualizing and measuring peer social competence and its relation to later adaptation.

KEY WORDS: peer relations; longitudinal; competence; childhood; emerging adulthood.

Developmental theorists proposed long ago that peer reputation and acceptance have special significance as markers of future adaptation, yet there have been few long-term prospective studies to test this assertion (Hartup, 1970; Kohlberg, LaCrosse, & Ricks, 1972). In developmental task theory, social competence with peers emerges in childhood as a salient issue which takes on new forms and significance over the course of development (Havighurst, 1948; Masten et al., 1995). As a core task of the school-age years in many contemporary soci-

eties, competence in peer relations is expected to forecast success in later-emerging forms of social adaptation, including the adult developmental tasks of romantic relationships and work competence (Roisman, Masten, Coatsworth, & Tellegen, 2004). In developmental psychopathology, peer relations play a prominent role in theory and research linking competence and symptoms. Over the course of childhood and adolescence, through many hypothesized processes, success or difficulty with peers is conceptualized as a cause, consequence, mediator, or moderator of links between competence and symptoms of psychopathology (Bukowski & Adams, 2005; Deater-Deckard, 2001; Dishion, McCord, & Poulin, 1999; Dodge & Pettit, 2003; Gazelle & Ladd, 2003; Masten, 2005; Masten, Burt, & Coatsworth, 2006). The goal of the present study was to test the developmental significance of peer reputation by examining links between narrow-band dimensions of childhood peer reputation in elementary

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school and later psychological well being and competence in salient and emerging developmental tasks during the transition to adulthood.

In social development theory and developmental psychopathology, peer experiences occurring at multiple levels of social complexity and analysis reflect and also contribute to children's social skills, self-evaluations, achievements, and opportunities for socialization experiences (Hartup, 1996; Ladd, 1999; Masten et al., 2006; Roisman et al., 2004; Rubin, Bukowski, & Parker, 1998). Across short time frames within childhood and adolescence, these peer experiences can either foster or undermine well being and competence. On the positive side, social acceptance affords opportunities for friendships (Bukowski, Pizzamiglio, Newcomb, & Hoza, 1996) that can foster self-worth, promote cognitive growth (Hartup, 1996), and serve as protective factors for children dealing with adversity, including peer victimization experiences (Hodges, Boivin, Vitaro, & Bukowski, 1999; Ladd & Troop-Gordon, 2003; Schwartz, Dodge, Pettit, & Bates, 2000). On the negative side, peer rejection, exclusion or victimization can undermine feelings of well being (Crick, 1997), and affiliation with deviant peers can exacerbate externalizing behavior problems and disengagement from school (Dishion, Nelson, & Yasui, 2005).

Childhood peer experiences may continue to have implications during the transition to adulthood due to continuities in salient and emerging developmental tasks. Academic achievement, friendship (i.e., peer social competence) and rule-abiding conduct, for example, are salient developmental tasks during both childhood and the transition to adulthood (Roisman et al., 2004), although the specific challenges within each domain shift over time. For instance, academic efforts shift from mastering basic skills to pursuing additional years of schooling, friendship challenges shift from getting along with assigned classmates to establishing self-constructed social networks, and rule-abiding conduct must be extended to new settings as autonomy increases. Longitudinal studies spanning childhood and the transition to adulthood suggest that there is both continuity and reorganization of these salient tasks over time, with conduct becoming less strongly linked to friendship success, but more strongly linked to academic functioning (Masten et al., 1995). Youth are also expected to begin to engage in paid work and romantic relationships as they move into their late teens and early twenties, but because this period of "emerging adulthood" is marked by prolonged exploration in modern industrialized societies (Arnett, 2000), it is useful to think of these as "emerging" developmental tasks (Roisman et al., 2004). Emerging work and romantic competence has roots in childhood

academic and friendship success, respectively (Masten et al., 1995), but is not yet well established and may not be a good predictor of functioning later in adulthood when these same tasks become more salient (Roisman et al., 2004).

There are several reasons to expect that childhood peer reputations are meaningful markers of peer experiences that may predict adaptation during the transition to adulthood (Bagwell, Newcomb, & Bukowski, 1998). First, peers are expert participant-observers in each other's experiences and may be particularly sensitive to individual differences in skills and competencies that have significance for future adaptation. Second, peers may function as an important "generalized other" in informing self-evaluations and motivated behavior (Harter, 1998; Mead, 1934), as evidenced by the finding that having a peer reputation as a good student predicted improvements in academic self-concept even after controlling for other indicators of academic skills (Gest, Domitrovich, & Welsh, 2005). Finally, peer reputations may be associated with differences in treatment by peers: for example, when presented with hypothetical provocative acts, children are more likely to ascribe hostile intent to classmates with a reputation as aggressive (Dodge, 1980) and are more likely to excuse the behavior of classmates they like most (Hymel, 1986). The long-term significance of peer reputations may derive from the cumulative consequences of transactional processes linking reputations with self- and social-cognitions, patterns of motivated behavior and socialization experiences in the peer group.

The importance ascribed to children's peer reputations received early support from a study indicating that peer nominations for roles in a hypothetical "class play" in childhood predicted presence on adult psychiatric registries (Cowen, Pedersen, Babigian, Izzo, & Trost, 1973). Subsequent research underscores that children can provide remarkably nuanced reports of their classmates' social behavior (Masten, Morison, & Pellegrini, 1985; Pekarik, Prinz, Liebert, Weintraub, & Neale, 1976) and symptoms of psychopathology (Weiss, Harris, & Catron, 2002). Despite the theoretical importance accorded peer relations and the promising predictive power of peer reputation measures, there remains surprisingly little longitudinal data on the long-term significance of peer reputation for later well being or competence. Long-term developmental correlates of peer reputation exist primarily for measures of sociometric liking and disliking (Parker & Asher, 1987), to a lesser degree for broad-band dimensions of social behavior (Masten et al., 1985; Morison & Masten, 1991), and scarcely at all for the increasingly differentiated constructs of interest in research on peer relations (Bukowski & Adams, 2005). Yet there is evidence

that the broad-band dimensions assessed by widely used peer reputation inventories may contain distinct subsets of items (Rubin et al., 1998; Zeller, Vanuatta, Schafer, & Noll, 2003) that are congruent with narrow-band dimensions of current interest (Bukowski & Adams, 2005) and that are relevant to particular domains of salient and emerging developmental tasks during the transition to adulthood. This is particularly true in the domains of withdrawal and sociability.

Linking Childhood Peer Reputation for Withdrawal to Later Competence and Symptoms

Several research groups have made important advances in differentiating among the diverse phenomena often labeled as social withdrawal. One critical distinction is between voluntary *withdrawal from peers* (“passive withdrawal”) and involuntary exclusion from peer interactions (“active isolation”; Rubin & Asendorpf, 1993; Rubin & Cohen, 1986; Younger & Daniels, 1992). Withdrawal from peers may reflect either a personal preference for solitary activities over social activities (“low sociability” or “social disinterest”) or social anxiety that inhibits the initiation of social interactions (“reticent withdrawal” or “conflicted shyness”; Coplan, Prakash, O’Neil, & Armer, 2004; Harrist, Zaia, Bates, Dodge, & Pettit, 1997; Hart et al., 2000). Recent evidence suggests it may be important to make a further distinction between withdrawal from peers and sad or depressed affect. Weiss and colleagues (Weiss et al., 2002) demonstrated that peer reputation for sad affect was empirically distinguishable from other peer-nominated symptom dimensions (see also the Withdrawal and Depressed subscales of the Child Behavior Checklist, Achenbach & Edelbrock, 1983; and the Shyness and Sad subscales on the Children’s Temperament Questionnaire, Rothbart & Ahadi, 1994). The multiple dimensions of competence and well being during the transition to adulthood are likely to be differentially predicted by withdrawal from the peer group, exclusion from the peer group and sad affect.

Social and emerging romantic competence may be undermined by a tendency to withdraw from peers, whereas academic and emerging job competence may be more strongly linked to a history of peer exclusion. To the extent that establishing positive peer relationships increasingly requires taking the initiative to build self-selected peer networks, then persistent childhood withdrawal from peers (Hymel, Rubin, Rowden, & LeMare, 1990; Rubin, Hymel, & Mills, 1989) may predict less social and romantic involvement in emerging

adulthood. It is not clear whether peer exclusion, which often marks a pattern of Aggressive-Disruptive behavior and peer difficulties (Bowker, Bukowski, Zagarpour, & Hoza, 1998; Harrist et al., 1997; Rubin & Mills, 1988), would predict later social and romantic success because the increasingly self-selected nature of social networks means that individuals may choose friends and romantic partners who value or share their behavioral styles. However, a developmental history of being excluded by equal-status peers at school due to interpersonal conflicts may bode poorly for success in academic and emerging job settings that require cooperative interaction with equal-status peers (Bagwell et al., 1998).

To the extent that internalizing symptoms display modest continuity over time (Kovacs & Devlin, 1998; Lewinsohn, Rohde, Klein, & Seeley, 1999), being seen by peers as displaying high levels of sadness may predict similar internalizing symptoms during the transition to adulthood. The proposition that withdrawal from peers also may predict internalizing distress (Bowker et al., 1998; Rubin & Cohen 1986) has been difficult to test because measures of withdrawal from peers so often overlap with measures of internalizing distress.

Linking Childhood Peer Reputation for Sociability to Later Competence and Symptoms

Research on children’s positive social competencies has also become more differentiated, with an early focus on patterns of liking and disliking (Asher & Coie, 1990; Bukowski & Cillessen, 1998) expanding to include additional dimensions of social status. For example, peer-perceived popularity refers to consensual views of which peers are most popular (Cillessen & Mayeux, 2004; Parkhurst & Hopmeyer, 1998; Rose, Swenson, & Waller, 2004), social dominance focuses on differential access to resources, often interpreted as levels of interpersonal influence (Hawley, 1999; Lease, Musgrove, & Axelrod, 2002; Pellegrini & Long, 2003), and social network centrality refers to prominence or visibility in the network of informal social groups (Gest, Graham-Bermann, & Hartup, 2001; Rodkin, Farmer, Pearl, & Van Acker, 2000). Perceived popularity has attracted particularly strong attention because it is only modestly correlated with being liked/disliked and has distinctive behavioral correlates (Cillessen & Mayeux, 2004; LaFontana & Cillessen, 1999, 2002; Parkhurst & Hopmeyer, 1998; Rose et al., 2004), especially in relation to Prosocial behavior (Cillessen & Mayeux, 2004; Gest et al., 2001; Lease et al., 2002). The few studies that examine the unique developmental correlates of

reputations for popularity and Prosocial behavior suggest that the two dimensions have distinct implications for success in different outcome domains.

Social and emerging romantic competence may be most distinctively predicted by perceived popularity, whereas academic and emerging job competence may be uniquely predicted by Prosocial behavior in childhood. A longitudinal study of Chinese youth provides evidence consistent with this view (Chen, Li, Li, Li, & Liu, 2000). Chen and colleagues used hierarchical regression models to predict several dimensions of adaptation at a 2-year follow-up from initial functioning in the outcome domain and two peer reputation scales: one scale described Prosocial behavior and the other scale included peers' perceptions of a child's success in making friends, making it similar to measures of perceived popularity. Positive changes in measures of peer social competence were predicted uniquely by the scale tapping perceived popularity, whereas improvements in indicators of academic functioning were predicted uniquely by peer reputation for Prosocial behavior. Similar longitudinal correlates were reported at the 7-year follow-up (Chen et al., 2002). A reputation for Prosocial behavior in childhood may indicate a self-regulatory capacity and willingness to help others or to facilitate the smooth functioning of the group (Bierman, 2004). These skills may continue to facilitate success in academic settings, and perhaps in work settings in which compliance with rules and cooperative effort are valued. In contrast, perceived popularity in childhood bodes well for continued success in tasks that involve building a socially prominent role within peer social networks, which could facilitate access to potential romantic partners.

Perceived popularity and Prosocial behavior may also differ in their relation to later externalizing behavior problems and internalizing distress. In the study of Chinese youth (Chen et al., 2000), the regression models including both Prosocial reputation and perceived popularity indicated that increases in externalizing behavior problems were predicted uniquely by perceived popularity. Decreases in internalizing behavior were predicted only by Prosocial behavior. In other words, when perceived popularity was not accompanied by Prosocial behavior, it predicted higher levels of interpersonal conflict and externalizing behavior problems.

The Present Study

These issues were examined with the Revised Class Play (RCP; Masten et al., 1985) because it has shown hardy psychometric properties across multiple studies and

cultures, and has shown preliminary evidence of narrow-band scales that could address the conceptual distinctions of interest. Moreover, the original data set was available, including outcome data on psychological well being and competence during the transition to adulthood. Narrow-band scales for the Sensitive-Isolated and Sociable-Leader scales were identified on the basis of confirmatory factor analysis of the original RCP data set ($N=612$), informed by the conceptual distinctions reviewed above and prior factor-analytic studies (Bowker et al., 1998; Casiglia, Lo Coco, & Zappulla, 1998; Chen, Chang, & He, 2003; Chen, Rubin, & Sun, 1992; Krispin, Sternberg, & Lamb, 1992; Luthar & McMahon, 1996; Realmuto, August, Sieler, & Pessoa-Brandao, 1997; Rubin & Cohen, 1986; Younger & Daniels, 1992; Zeller et al., 2003). Examination of the concurrent and 10-year predictive correlates of the narrow band scales were based upon data available from a longitudinal study of 205 youth from the original RCP sample. These analyses built on prior studies from this data set focused on the concurrent and 7-year predictive correlates of the original three broad-band RCP scales (Masten et al., 1985; Morison & Masten, 1991) by clarifying how a wider range of salient and emerging developmental tasks during the transition to adulthood were predicted by more differentiated narrow-band scales.

We hypothesized that: (a) academic and emerging work competence would be predicted negatively by involuntary exclusion from the peer group and positively by Prosocial behavior; (b) friendship and emerging romantic competence would be predicted positively by perceived popularity-leadership and negatively by withdrawal from peers; (c) externalizing problems would be predicted positively by perceived popularity-leadership and negatively by Prosocial behavior; and (d) internalizing symptoms would be predicted by having a peer reputation for displaying high levels of sadness. The Aggressive-Disruptive scale of the RCP, which combines items describing annoying behavior (e.g., bossy, interrupting) and aggressive behavior (e.g., starts fights) was included to clarify the differential patterning and unique predictive validity of the narrow-band scales describing withdrawal and sociability. We explored whether predictive associations varied by grade, sex, or minority status because of evidence that older students may be more sensitive to individual differences in withdrawal (Gest et al., 2001), that withdrawal may be less positive for boys (Crick & Zahn-Waxler, 2003; Rubin & Asendorpf, 1993), and that the correlates of peer experiences may vary by minority status (Hanish & Guerra, 2000; Luthar & McMahon, 1996).

METHODS

Sample and Procedures

Revised Class Play Sample

Participants in the original RCP assessment included all 612, 3rd through 6th grade, students attending two elementary schools serving a diverse but predominantly lower to middle class neighborhood in Minneapolis (Masten et al., 1985). Based on “sight count” procedures, the school district estimated that 27% of all district students and around 40% of the students attending these two schools were ethnic/racial minorities at the time the RCP was administered. The first RCP assessment occurred late in the Fall so that children in classrooms would be familiar with each other. Two follow-up administrations conducted for psychometric purposes involved a subset of the original sample and took place 6 months later (same school year) and 17 months later (the following school year). We use data from the first administration ($N=612$) to identify narrow-band scales and data from the 6-month ($N=161$) and 17-month ($N=163$) follow-ups to describe the temporal stability of the narrow-band scales.

Longitudinal Sample

The longitudinal sample was recruited from a subset of 361 children (59% of the 612 eligible children) whose families participated in a cross-sectional study of competence and life events (see Masten et al., 1995, 1999). Families of 205 children participated in the extensive longitudinal study (114 girls, 91 boys, ages 8–12, mean age 10.0, SD 1.1). There were 26 sibling-pairs, so all analyses were repeated after randomly dropping one sibling from each pair. In all the analyses, results were highly similar with and without siblings, thus data are reported for the full longitudinal sample in the interest of greater power. The longitudinal sample had slightly higher Sociable-Leader scores and slightly lower Aggressive-Disruptive scores than the rest of the school population (mean differences on each scale were less than .22 SD). The longitudinal sample included 29% children of ethnic/racial minority heritage, including biracial children (18% African American, 7% American Indian, 3% Hispanic, 1% Asian). Socioeconomic status ranged from 7 to 92.3 on the 100-point Duncan Socioeconomic Index (Hauser & Featherman, 1977). The sample mean of 43 represents skilled labor and clerical work.

Measurement Procedures

Adjustment scores in childhood and 10 years later assessed multiple dimensions of competence in age-salient developmental tasks and also psychological distress, based on developmental theory and research concerning key domains of adaptation in children and youth (see Masten et al., 1985, 1995, 1999). In childhood, three core domains of external adaptation were assessed: academic achievement, externalizing (antisocial vs. rule-abiding) conduct, and social competence with peers. In emerging adulthood, these three core domains and two newly emerging domains were assessed: romantic and job competence. Internal adaptation was assessed by indicators of internalizing symptoms in childhood and adolescence. Information from multiple methods and informants was combined in a conceptually-informed, empirical data reduction process. Composite scores were formed for each domain by averaging standardized scores on multiple indicators. Childhood assessments included teacher ratings, three in-home interviews of parents, a child interview conducted over two occasions at the school, information gathered from school records, an individual achievement test, and peer assessments. Ten years later, when participants were 17–24 years old ($M=19.8$, $SD=1.6$ years), 98% of the original longitudinal sample (202/205) participated in a follow-up assessment. Methods included (1) researcher ratings based on information provided in Status Questionnaires, completed independently by participant and parent, (2) Competence Rating scales completed by parents, and (3) interviewer ratings based on a 3-hr interview of participants at the university, and (4) interviewer ratings based on a 2-hr interview of parents in their homes.

Measures

Revised Class Play (RCP)

The RCP consisted of 30 roles, 15 positive and 15 negative (Masten et al., 1985). In a group-administered procedure, each child chose one classmate who could best play the part described by each role. The play was “cast” twice, once for boys and once for girls. The number of votes received by each child for each role was tallied and then standardized within classroom and sex to adjust for variations in class size and sex distribution.

Intellectual Ability

The Vocabulary and Block Design subtests of the Wechsler Intelligence scale for Children—Revised

(WISC-R) were administered to the longitudinal sample. This two-subtest short form had shown the highest correlation with full-scale IQ scores ($r = .88$; Silverstein, 1975). Scale scores for Vocabulary ($M = 10.07$, $SD = 2.74$) and Block Design ($M = 10.58$, $SD = 3.47$) were summed to obtain an estimate of intellectual ability.

Academic and Emerging Job Adaptation

In childhood, *Academic Competence* was computed as the average of four indices ($\alpha = .88$): Grade Point Average in academic subjects; the Total score from the Peabody Individual Achievement Test—Revised (PIAT-R; Dunn & Markwardt, 1970), a single item from the Devereux Elementary Behavior Rating Scale (Spivack & Swift, 1967), and three items from the parent interview. At the 10-year follow-up, *Academic Competence* was defined by cumulative years of schooling and quality of academic performance (i.e., grades, academic honors). The composite score was computed as the average of four separate ratings ($\alpha = .90$): two parallel ratings based on information provided independently by the parent and participant on Status Questionnaires, plus parallel ratings by parent and participant interviewers (“How well is X doing in school?”) based on questions about educational attainment and grades. *Job Competence* reflected the extent to which the participant held paid jobs successfully and reliably (e.g., number and duration of paid jobs held, level of responsibility in jobs, history of being fired). This index was computed as the average of five separate variables ($\alpha = .74$): parallel ratings of “How well is X doing holding a job successfully and reliably?” based on parent interviewer ratings and independent ratings of information provided on the parent and participant Status Questionnaires; several ratings by the adolescent interviewer based on more detailed questions about work history, and self-reported job competence.

Social and Emerging Romantic Adaptation

In childhood, *Social Competence* with peers was computed as the average of two highly intercorrelated scales ($r = .75$) derived from child interviewer ratings: a 4-item scale describing the child’s general acceptance by peers; and a 5-item scale describing the extent to which the child formed close friendships. At the 10-year follow-up, *Social Competence* was defined as the degree to which the participant had a positive, active social life with same-sex peers (e.g., frequency of contact with self-selected peers in social or recreational settings) as well as close and confiding relationships (e.g., sharing personal thoughts/concerns

with close friends). The composite score was based on eight indices ($\alpha = .86$): parallel ratings of positive/active social life from the parent and participant questionnaires, parallel ratings of close/confiding relationships from those questionnaires, ratings from participant and parent interviewers, and ratings by parents and participants on the Competence Rating Scales (adapted from early versions of Harter’s self-perception profile for adolescents and college students, in consultation the authors; see Masten, Neemann, & Andenas, 1994). *Romantic Competence* described the degree to which the participant was responsibly establishing and managing romantic relationships (e.g., ease/difficulty in establishing relationships, intimacy in relationships, responsible sexual behavior). The composite index was computed as the average of four indices ($\alpha = .77$) based on the participant interviewer’s separate ratings of intimate romantic involvement and responsible sexuality, and parallel Competence Rating Scales completed by the parent and participant on ease/difficulty of establishing romantic relationships.

Externalizing and Internalizing Behavior Problems

In childhood, an index of *externalizing behavior problems* at home and school was computed as the average of three indices ($\alpha = .78$): a composite teacher rating of Aggressive-Disruptive behavior; and two separate composites derived from the parent interviewer ratings describing the parent’s depiction of the child’s noncompliance to rules at home and at school. *Internalizing Symptoms*, describing symptoms of depression, anxiety, and somatic complaints, were measured with 12 items from a symptom checklist completed by parents ($\alpha = .83$). At the 10-year follow-up, *externalizing behavior problems* described the degree to which the participant was in conflict with the rules and laws at school, the workplace and in the community (e.g., frequency of fighting with peers, suspension/expulsion from school, fired from job, trouble with law). The composite index was computed from five indices ($\alpha = .79$): participant interviewer ratings of the full range of these problems, parent ratings of fighting from the CRS, parent interviewer ratings of trouble with the law, and parallel ratings of trouble with the law based on the separate parent and participant Status Questionnaires. *Internalizing distress* was measured with the Global Severity Index from the Symptom Checklist (SCL90R; Derogatis & Cleary, 1977), $\alpha = .97$. As expected for a sample averaging 20 years of age, observed scores ($M = .65$, $SD = .50$) were lower than those of a normative sample of adolescents averaging 15 years of age ($M = .76$, $SD = .54$), but higher than those of a

normative sample of adults averaging 46 years of age ($M = .31, SD = .31$).

Analysis Plan

First, we present confirmatory factor analyses of the Sensitive-Isolated and Sociable-Leader scales. Preliminary analyses indicated that fit improved substantially when parameters were estimated separately for younger (3rd/4th grades) and older (5th/6th grades) students, but not when parameters were estimated separately for girls and boys. We use model comparisons to arrive at a set of subscales that fit the data and that map onto the constructs of central interest. Second, we examine concurrent correlates of the identified subscales with hierarchical multiple regression models in which the four domains of childhood adaptation serve as dependent variables. Predictors are entered in three steps: (1) grade, sex, minority status, SES and estimated IQ are entered as control variables; (2) narrow-band scales from one broad-band scale are entered as a set to determine the unique predictive power of each narrow-band scale, pitting one against the other; and (3) all 2-way interactions involving grade, sex, and minority status are entered as an exploratory set. Continuous predictors were centered and dichotomous predictors were dummy-coded prior to constructing interaction terms

(Cohen, Cohen, West, & Aiken, 2003). Third, we test whether the narrow-band scales predict relative changes in adaptation across 10 years by entering the control variables as well as adaptation in the most comparable childhood domain at Step 1, followed by the narrow-band scales at Step 2. In a final set of regressions, we use the same strategy to compare the predictive power of the complete set of narrow-band scales to the original set of three broad-band scales.

RESULTS

Identifying Narrow-Band Peer Reputation Scales With Confirmatory Factor Analysis

RCP Sensitive-Isolated scale. Consistent with prior studies of the RCP (Bowker et al., 1998), CFA models indicated that a 2-factor model (Model 2a) fit the data substantially better than a 1-factor model (Model 1), $\Delta\chi^2(4) = 79.0, p < .001$, although the fit of the 2-factor model was not adequate (CFI = .853, RMSEA = .081; see Table I). Fit improved substantially when the item “often left out” was permitted to load on both factors, $\Delta\chi^2(2) = 131.4, p < .001$; RMSEA = .065, which was in the range from .05 to .08 that Browne and Cudeck

Table I. Confirmatory Factor Analysis of Sensitive-Isolated Scale: Fit of 1-, 2-, and 3-Factor Models for Students in 3rd/4th Grades and 5th/6th Grades

	Model 1	Model 2a		Model 2b		Model 3		
	1	1	2	1	2	1	2	3
3rd & 4th Grades								
14. Trouble making friends	.59	.68		.79		.79		
17. Can't get others to listen	.60	.69		.80		.80		
22. Often left out	.83	.81		.34	.58	.35	.56	
11. Feelings get hurt easily	.65		.77		.76		.77	
24. Usually sad	.62		.72		.73		.74	
18. Very shy	.36		.45		.48			.55
3. Rather play alone	.55		.53		.55			.65
5th & 6th Grades								
14. Trouble making friends	.57	.72		.87		.86		
17. Can't get others to listen	.58	.71		.84		.85		
22. Often left out	.78	.80		.30	.57	.28	.59	
11. Feelings get hurt easily	.73		.75		.74		.75	
24. Usually sad	.80		.83		.84		.84	
18. Very shy	.46		.52		.53			.57
3. Rather play alone	.74		.77		.76			.91
$\chi^2(df)$	$\chi^2(68) = 398.9$	$\chi^2(64) = 319.9$		$\chi^2(62) = 188.5$		$\chi^2(56) = 162.7$		
$\chi^2(df)$: improvement in fit	NA	$\chi^2(4) = 79.0^{***}$		$\chi^2(2) = 131.4^{***}$		$\chi^2(6) = 25.8^{***}$		
CFI	.810	.853		.907		.939		
RMSEA	.089	.081		.065		.056		

Note. Italicized loadings for Model 3 indicate the items scored on the three narrow-band scales.

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

(1993) describe as indicating a reasonable fit; and CFI = .907, which was above the .90 threshold described as acceptable (Kline, 1998). In a final model, the hypothesized 3-factor model fit substantially better than the 2-factor model, $\Delta\chi^2(6) = 25.8$, $p < .001$ (CFI = .939, RMSEA = .056). Prior research had suggested that “often left out” would load on a “peer isolation” factor (Bowker et al., 1998; Rubin & Cohen, 1986; Younger & Daniels, 1992), but these data on over 600 youth do not support that scoring approach. Consequently, we constructed three two-item subscales labeled Peer Isolation, Sad-Sensitive, and Shy-Withdrawn. Each scale displayed robust 6-month stability (within school year) and 17-month stability (across different school years): Sad-Sensitive $r_6 = .72$, $r_{17} = .60$; Peer Isolation $r_6 = .61$, $r_{17} = .48$; Shy-Withdrawn $r_6 = .49$, $r_{17} = .56$.

RCP Sociable-Leader Scale

Consistent with prior factor-analytic studies of the RCP, CFA models indicated that a 2-factor model fit the data far better than a 1-factor model, $\chi^2(4) = 382.6$, $p < .001$, with the fit of the 2-factor model falling short of acceptable by one measure (CFI = .888), but reasonable by another index (RMSEA = .057). Based on modification indices, two items hypothesized to belong on the Prosocial factor were permitted to load on both factors. This model led to a substantial improvement in fit, $\chi^2(4) = 123.6$, $p < .001$, with these two items loading evenly across factors among older students, and the overall fit acceptable (CFI = .905, RMSEA = .053). A close examination of the highest-loading items on the first factor suggested that six items describing peer-perceived popularity and leadership anchored the factor (see Table II; items are listed in order of their mean loading across younger and older students). Farmer, Estell, Bishop, O’Neal, and Cairns (2003) also found popularity and leadership items to load together in a factor analysis. Three of the remaining items that loaded on the first factor appeared to tap sociability (likes to play with others) and positive affect (usually happy; good sense of humor) rather than popularity and leadership per se. The final item (good ideas for things to do) loaded more weakly among older students. Consequently, we created two subscales that were conceptually and empirically distinct: a 6-item Popular-Leader scale that resembles many current efforts to measure peer-perceived popularity; and a 3-item Prosocial scale. Both scales had robust 6-month and 17-month stability: Popular-Leader, $r_6 = .72$, $r_{17} = .61$; Prosocial $r_6 = .65$, $r_{17} = .65$, respectively.

Predicting Competence and Symptoms From Three Narrow-Band Withdrawal Scales

Childhood Adaptation

Academic competence was correlated negatively with Sad-Sensitive and Peer-Isolated (see Table III), social competence was correlated negatively with all three narrow-band scales, externalizing behavior problems were correlated positively with Peer Isolation and negatively with Shy-Withdrawn, and internalizing symptoms were correlated with Peer-Isolated. In multiple regression models that included all three narrow-band dimensions (as well as control variables for sex, grade, IQ, SES, and minority status), almost all of these associations remained statistically reliable (see Table IV), except that social competence was only uniquely associated with Peer-Isolated.

Predicting Changes in Adaptation From Childhood to the 10-Year Follow-Up

Academic and work competence at the 10-year follow-up were both negatively predicted by childhood Peer-Isolated scores (Table III); social and romantic competence were each predicted negatively by all three narrow-band scales; externalizing behavior problems were predicted by Peer-Isolated; and self-reported internalizing symptoms were predicted by a reputation for showing high levels of sad affect in childhood. Next, adaptation at the 10-year follow-up was predicted in multiple regression models that took into account the control variables (sex, age, IQ, minority status), childhood competence in the most comparable domain and all three narrow-band scales (Table V). After controlling for childhood academic competence, academic competence during the transition to adulthood was predicted marginally and negatively by Peer-Isolated ($p = .051$) and marginally and positively by Sad-Sensitive ($p = .056$); job competence was predicted negatively by Peer-Isolated. After controlling for childhood social competence, social and romantic relationships at the 10-year follow-up were uniquely and negatively predicted by a childhood reputation as Shy-Withdrawn. Finally, after controlling for the indicator of childhood internalizing symptoms, self-reported internalizing symptoms at the 10-year follow-up were uniquely and positively predicted by a childhood reputation for displaying high levels of sadness.

Table II. Confirmatory Factor Analysis of RCP Sociable-Leader Scale: Fit of 1- and 2-Factor Models for Students in 3rd/4th Grades and 5th/6th Grades

	Model 1		Model 2a		Model 2b	
	1	1	2	1	2	
3rd & 4th Grades						
25. Everyone likes to be with	.89	.89		.89		
9. Has many friends	.86	.88		.87		
1. Good leader	.92	.92		.92		
20. Makes new friends easily	.85	.84		.84		
26. Can get things going	.81	.81		.81		
12. Everyone listens to	.82	.82		.82		
16. Good sense of humor	.86	.83		.84		
4. Good ideas for things to do	.83	.79		.79		
30. Likes to play with others	.78	.75		.75		
28. Usually happy	.73	.68		.68		
7. Someone you can trust	.85		.88	.34	.56	
23. Helps other people	.83		.84	.39	.48	
19. Polite	.83		.90		.92	
13. Plays fair	.79		.81		.80	
10. Will wait their turn	.64		.70		.73	
5th & 6th Grades						
25. Everyone likes to be with	.90	.92		.92		
9. Has many friends	.90	.93		.92		
1. Good leader	.83	.82		.82		
20. Makes new friends easily	.84	.85		.85		
26. Can get things going	.84	.86		.85		
12. Everyone listens to	.77	.81		.80		
16. Good sense of humor	.74	.72		.72		
4. Good ideas for things to do	.70	.68		.68		
30. Likes to play with others	.59	.60		.59		
28. Usually happy	.53	.61		.61		
7. Someone you can trust	.70		.80	.46	.44	
23. Helps other people	.70		.77	.44	.43	
19. Polite	.53		.79		.86	
13. Plays fair	.52		.74		.78	
10. Will wait their turn	.27		.54		.64	
$\chi^2(df)$	$\chi^2(388) = 1524.9$	$\chi^2(384) = 1142.3$		$\chi^2(380) = 1018.7$		
$\chi^2(df)$: improvement in fit	NA	$\chi^2(4) = 382.6^{***}$		$\chi^2(4) = 123.6^{***}$		
CFI	.832	.888		.905		
RMSEA	.069	.057		.053		

Note. Italicized loadings for Model 2b indicate the items scored on the two narrow-band scales.

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

Predicting Competence and Symptoms From Two Narrow-Band Sociability Scales

Concurrent Adaptation

Academic and social competence were correlated positively with both Popular-Leader and Prosocial reputations, and internalizing symptoms were correlated negatively with both dimensions (Table III). externalizing behavior problems were more strongly and negatively correlated with Prosocial ($r = -.50$) than with Popular-Leader ($r = -.17$), $t_{diff}(196) = 12.65$, $p < .001$.

In multiple regression analyses (Table VI), externalizing behavior problems were uniquely and positively associated with a reputation as a Popular-Leader. Effects that were moderated by minority status are discussed below.

Predicting Changes in Adaptation From Childhood to the 10-Year Follow-Up

Academic and job competence at the 10-year follow-up were each predicted by both Popular-Leader and

Table III. Correlations of Childhood Peer Reputation With Concurrent and 10-year Follow-up Adaptation

	RCP Scales										10-Year follow-up adaptation					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
RCP Peer Reputation Scales																
1. Sad-Sensitive	–															
2. Peer Isolated	.44	–														
3. Shy-Withdrawn	.61	.30	–													
4. Popular-Leader	–.39	–.38	–.35	–												
5. Prosocial	–.08	–.31	.12	.53	–											
6. Aggressive-Disruptive	–.13	.38	–.18	.01	–.40	–										
Concurrent adaptation																
7. Academic	–.26	–.37	–.09	.32	.32	–.17	–									
8. Social	–.19	–.24	–.17	.21	.19	–.12	.19	–								
9. Externalizing	.01	.38	–.17	–.17	–.50	.60	–.30	–.30	–							
10. Internalizing	.04	.15	–.06	–.14	–.13	.16	–.04	–.08	.24	–						
10-Year follow-up adaptation																
11. Job	–.08	–.28	–.02	.20	.27	–.21	.28	.29	–.40	–.12	–					
12. Academic	.02	–.22	.10	.20	.33	–.26	.42	.42	.12	–.46	–.19	.54	–			
13. Social	–.19	–.20	–.25	.23	.10	–.08	.21	.43	–.15	–.13	.37	.25	–			
14. Romantic	–.26	–.09	–.23	.16	–.01	.01	.10	.26	–.01	–.01	.15	.03	.36	–		
15. Externalizing	–.05	.21	–.10	–.07	–.31	.36	–.17	–.19	.62	.22	–.48	–.57	–.19	.05	–	
16. Internalizing	.19	.11	.09	–.12	–.14	.08	–.26	–.14	.14	.09	–.27	–.20	–.18	–.21	–.20	–

Note. Correlations that are not reliable at $p < .05$ are italicized. For all other entries, $p < .05$.

Table IV. Associations Between Measures of Childhood Adaptation and Concurrent Peer Reputation as Sad-Sensitive, Peer-Isolated, and Shy-Withdrawn

	Academic	Social	Externalizing	Internalizing
1				
Sex	.06	.11	-.37***	-.04
Grade	.05	.07	-.02	.08
IQ	.54***	.10	-.10	.01
SES	.18**	.07	-.09	-.08
Minority status	-.01	-.03	.12	-.16*
R ²	.46***	.06*	.22***	.04
2				
Sad-Sensitive	-.16 ^M	-.05	.05	.03
Peer-Isolated	-.12*	-.15*	.42***	.20*
Shy-Withdrawn	.06	-.07	-.28***	-.16
ΔR ²	.04**	.04*	.17***	.04**

Note. Each column represents results from a hierarchical multiple regression model. Row entries are final standardized beta weights obtained after Step 2. All possible 2-way interactions between grade, sex, and minority status and each RCP dimension were tested at Step 3. Significant interactions with minority status are indicated by the superscript M.

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

Prosocial reputations in childhood (Table III). Social and romantic competence were predicted by a reputation as a Popular-Leader. Externalizing behavior problems were predicted negatively by a Prosocial reputation. Multiple regression analyses models parallel to those reported for the withdrawal scales were tested to clarify how changes

Table VI. Associations Between Popular-Leader and Prosocial Reputations and Concurrent Adaptation

	Academic	Social	Externalizing	Internalizing
1				
Sex	.08	.13	-.34***	-.03
Grade	.06	.08	-.02	.08
IQ	.57***	.14	-.14*	-.01
SES	.15*	.05	-.08	-.07
Minority status	.03	.01	.08	-.15
R ²	.46***	.06*	.22***	.04
2				
Popular-Leader	.10 ^M	.13	.16*	-.08
Prosocial	.12	.07	-.52*** ^M	-.09
ΔR ²	.03**	.03*	.18***	.02

Note. Each column represents results from a hierarchical multiple regression model. Row entries are final standardized beta weights obtained after Step 2. All possible 2-way interactions between grade, sex, and minority status and each RCP dimension were tested at Step 3. Significant interactions with minority status are indicated by the superscript M.

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

in each domain of functioning were uniquely predicted by the two narrow-band sociability scales (Table VII). Changes in academic competence were uniquely and positively predicted by a childhood reputation as Prosocial, and changes in social competence were uniquely and positively predicted by a childhood reputation as a Popular-Leader. After controlling for childhood social competence, romantic competence was uniquely and positively

Table V. Associations Between Sad-Sensitive, Peer-Isolated, and Shy-Withdrawn Reputations and Relative Changes in Adaptation Between Childhood and 10-Year Follow-up

	Work functioning		Social functioning		Behavior problems	
	Job	Academic	Social	Romantic	Ext	Int
1						
Sex	.16*	.21**	-.15*	-.01	-.04	.10
Grade	.11	.05	-.14*	.02	-.03	-.13
IQ	.23**	.32***	.04	.01	-.06	-.18*
SES	.07	.15*	.14*	.06	.02	.00
Minority status	-.11	.09	-.04	-.02	-.06	.11
Time 1 adaptation	.04	.16	.39***	.21**	.62***	.11
R ²	.18**	.27***	.26***	.08*	.38***	.09**
2						
Sad-Sensitive	.05	.16 ^a	-.01	-.15	-.12	.20*
Peer-Isolated	-.20**	-.14 ^b	-.02	.10	.01	-.06
Shy-Withdrawn	.05	.10	-.27**	-.19*	.05 ^M	.02
ΔR ²	.03	.04*	.07***	.07**	.01	.03

Note. Each column represents results from a hierarchical multiple regression model. Row entries are final standardized beta weights obtained after Step 2. All possible 2-way interactions between grade, sex, and minority status and each RCP dimension were tested at Step 3. Significant interactions with minority status are indicated by the superscript M.

^ap = .056. ^bp = .051

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

Table VII. Associations Between Popular-Leader and Prosocial Reputations and Relative Changes in Adaptation Between Childhood and 10-Year Follow-up

	Work functioning		Social functioning		Behavior problems	
	Job	Academic	Social	Romantic	Ext.	Int.
1						
Sex	.15*	.18**	-.12	.02	-.04	.07
Grade	.11	.04	-.14*	.03	-.02	-.14*
IQ	.26**	.33***	.07	.04	-.05	-.20*
SES	.06	.15*	.12	.04	.01	.02
Minority status	-.10	.08	-.03	-.02	-.06	.05
Time 1 adaptation	.02	.10	.42***	.24**	.59***	.09
R^2	.18***	.27***	.26***	.08*	.38***	.09**
2						
Popular-Leader	-.04 ^M	-.07 ^M	.19*	.25**	.09 ^M	-.06
Prosocial	.16 ^M	.24**	-.14	-.26**	-.07	-.05
ΔR^2	.03*	.04**	.02*	.05**	.01	.01

Note. Each column represents results from a hierarchical multiple regression model. Entries are final standardized beta weights obtained after Step 2. All possible 2-way interactions between grade, sex, and minority status and each RCP dimension were tested at Step 3. Significant interactions with minority status are indicated by the superscript M.

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

predicted by Popular-Leader and uniquely and *negatively* predicted by Prosocial. Several other effects were moderated by minority status and are discussed below.

Aggressive-Disruptive

At the 10-year follow-up, academic and job competence were negatively predicted by childhood reputation as Aggressive-Disruptive, and externalizing behavior problems were positively predicted by such a reputation. In regression analyses controlling for childhood academic competence, academic ($\beta = -.21, p < .01$) and job competence ($\beta = -.14, p < .05$) were each uniquely and negatively predicted by Aggressive-Disruptive scores.

Variations by Minority Status

With alpha set at .05, there were more interactions than one would expect by chance for minority status ($11/56 = 19.6\%$). Interactions clustered within particular narrow-band scales: they were most common for the Popular-Leader and Prosocial scales ($7/20 = 35\%$) and for the Aggressive-Disruptive scale ($2/6 = 33\%$), and were uncommon for the Sad-Sensitive, Peer Isolation, and Shy-Withdrawn scales ($2/30 = 6.7\%$). When these interactions were plotted (Cohen et al., 2003), it was clear that Prosocial scores were associated with better adaptation for both majority and minority youth, but these effects were stronger for minority youth in two instances. Aggressive-

Disruptive scores were correlated negatively with academic and social competence at the 10-year follow-up for majority youth, but not for minority youth. Four of the five interactions involving the Popular-Leader scale suggested that Popular-Leader reputations functioned neutrally or positively for minority youth, but neutrally or negatively for majority youth. The three such interactions involving 10-year follow-up adaptation are illustrated in Fig. 1. There were no more interactions than one would expect by chance for sex ($3/56 = 5.3\%$) and grade ($2/56 = 3.5\%$).

Comparing the Overall Predictive Power of Broad-Band and Narrow-Band RCP Scales

To compare the overall predictive power of the broad-band and narrow-band RCP scales, we examined two sets of regression models predicting changes in adaptation over 10 years. For one set, at Step 1 we entered the same control variables as in the longitudinal regression models (including competence in the most comparable childhood domain, Tables V and VII), and at Step 2 we entered the five RCP narrow-band scales plus the broad-band Aggressive-Disruptive scale. In the other set, Step 1 included the same control variables, but Step 2 included the three original RCP broad-band scales. For each outcome domain, we compared the increment in variance explained at Step 2 by the two models, using Adjusted- R^2 (Adj- R^2) to correct for the different numbers of

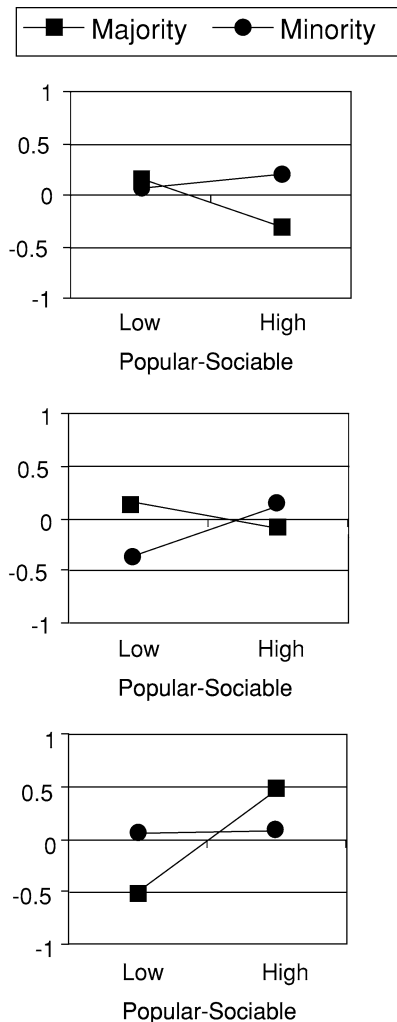


Fig. 1. Two-way interaction effects between Minority Status and RCP Popular-Leader scores in childhood as predictors of Academic Competence, Job Competence, and Externalizing Behavior Problems at the 10-year follow-up.

predictors and focusing on instances in which the difference in Adjusted- R^2 was greater than 1%. The narrow-band scales accounted for more variance than the broad-band scales for academic competence ($\Delta\text{Adj-}R^2 = .069$ vs. $.055$), social competence ($\Delta\text{Adj-}R^2 = .056$ vs. $.043$) and romantic competence ($\Delta\text{Adj-}R^2 = .071$ vs. $.031$). The predictive power of the narrow-band and broad-band scales differed by less than 1% for the other three outcome measures.

In models including the narrow-band scales and the Aggressive-Disruptive scale, three unique predictive relations remained significant across 10 years: social competence was predicted negatively by a Shy-Withdrawn reputation ($\beta = -.24, p < .01$), romantic competence was

predicted negatively by a Prosocial reputation ($\beta = -.24, p < .05$), and internalizing distress was predicted by a Sad-Sensitive reputation ($\beta = .21, p < .05$).

DISCUSSION

Well being and competence in salient and emerging developmental tasks during the transition to adulthood were predicted in unique and theoretically expected ways by multiple narrow-band dimensions of childhood peer reputation measured 10 years earlier. Results add to a small number of long-term longitudinal studies supporting the long-held notion that childhood peer experiences lay a foundation for later developmental accomplishments (Hartup, 1970; Kohlberg et al., 1972) and are consistent with models of developmental psychopathology that suggest multiple processes link peer experiences with later adaptation (Deater-Deckard, 2001; Masten, 2005). The specificity of predictive associations between narrow-band dimensions of sociability and withdrawal and later adaptation underscores the need to move toward more differentiated perspectives on childhood peer experiences (Bukowski & Adams, 2005).

Academic and emerging job competence at the 10-year follow-up assessment were most distinctively associated with childhood reputations for Prosocial behavior and low peer exclusion. Both domains of competence were predicted positively by childhood Prosocial behavior and popularity-leadership and negatively by social withdrawal and peer exclusion, but unique predictive associations were clarified in multiple regression models that controlled for childhood academic functioning and estimated IQ. In those models, Prosocial behavior and peer exclusion were the only dimensions of “sociability” and “withdrawal,” respectively, to demonstrate unique predictive associations. (The predictive association between peer exclusion and changes in academic competence was marginally unreliable, $p = .051$.)

Chen and colleagues (Chen et al., 2000, 2002) also reported that Prosocial reputations positively predicted a range of later academic outcomes, but the present results provided a more stringent test by controlling for estimated IQ and childhood achievement. The fact that Prosocial skills made a distinctive contribution to children’s long-term educational and job success, above and beyond their cognitive skills and history of achievement, suggests that a reputation as Prosocial may reflect well-developed social skills and a self-regulatory capacity that facilitates success in academic and job settings in which compliance with rules and cooperative effort are valued. One other longitudinal study found peer rejection in childhood to predict

poorer adult job adjustment (Bagwell et al., 1998), but this is the first study to document such a link while taking into account past academic competence and two closely related dimensions of social withdrawal. This suggests that the same interpersonal styles that contribute to peer isolation in childhood may lead to maladaptive peer interactions in the workplace that undermine job success.

Social and romantic competence were correlated positively with a childhood peer reputation for being a Popular-Leader. These findings are consistent with Chen and colleagues' (Chen et al., 2002) finding that childhood sociability was associated with greater peer integration and less loneliness 7 years later, but it extends that finding by controlling for indices of childhood social competence and by predicting emerging romantic competence. These enduring correlates of popularity-leadership suggest that the self-assertive skills that bring social status in childhood may also facilitate success in self-selected social relationships during the transition to adulthood.

Social and romantic competence correlated negatively with all three narrow-band dimensions of childhood withdrawal, but most distinctively with withdrawal from peers. In the multiple regression models, withdrawal from peers was the only unique predictor of lower than expected social and romantic competence, and this predictive association remained significant when all six RCP scales were considered in the model. The social competence measure at the 10-year follow-up placed equal emphasis on having an active, positive social life (e.g., frequency of social contact) and having close and confiding friendships, so this association could reflect a continuation of childhood patterns of infrequent social contact (Hymel et al., 1990; Rubin et al., 1989) or a link between childhood withdrawal and less intimate friendships 10 years later. Having a less active social life could account for the link to emerging romantic competence because individuals who are less engaged in social networks may find fewer opportunities to meet potential romantic partners. The fact that these associations remained significant after controlling for childhood social competence and peer exclusion suggests that the tendency to withdraw from peers may remain salient as children move from the adult-constructed social worlds of elementary school to the self-constructed social worlds of adolescence and adulthood.

Self-reported internalizing distress at the 10-year follow-up was predicted by having a childhood reputation for displaying high levels of sad affect. This predictive association remained significant even after taking into account parents' reports of childhood internalizing distress, and even when all other RCP scales were considered. This is consistent with reports of modest continuity in internalizing distress across the transition into

adolescence and the emerging adulthood years (Kovacs & Devlin, 1998; Lewinsohn et al., 1999) and with evidence that peers provide developmentally informative reports on classmates' affective states (Weiss et al., 2002). It extends those findings by demonstrating the unique predictive validity of peer-perceived sad affect across a 10-year period. Withdrawal from peers did not predict internalizing distress, suggesting that the established association between "passive withdrawal" and subsequent internalizing distress may be accounted for by passive withdrawal items that describe sad affect (Rubin & Mills, 1988).

Externalizing behavior problems at the 10-year follow-up were predicted positively by a childhood peer reputation for Aggressive-Disruptive behavior and peer exclusion, and negatively by a reputation for Prosocial behavior. The concurrent and predictive associations between peer exclusion and externalizing behavior problems are consistent with a large literature linking aggressive behavior with peer rejection (Asher & Coie, 1990). The failure of any peer reputation scales to predict *changes* in externalizing behavior problems may reflect the considerable continuity in such behavior.

Within the broad domain of social withdrawal, findings build upon past research highlighting the important distinction between "active isolation" (exclusion) from the peer group and "passive withdrawal" from peers (Bowker et al., 1998; Rubin & Cohen, 1986; Rubin & Mills, 1988; Younger & Daniels, 1992) by demonstrating that passive withdrawal can be subdivided into withdrawal from peers and sad affect. Peer exclusion was uniquely associated with lower academic and job competence, withdrawal from peers was uniquely associated with lower social and romantic competence, and Sad-Sensitive affect was uniquely associated with higher internalizing distress. The existence of three narrow-band scales on the 7-item Sensitive-Isolated scale underscores the complexity of social withdrawal and the need to develop new measures that allow for a more differentiated understanding of these phenomena. Younger and colleagues, for example, developed a 16-item inventory that distinguishes Inhibited/Wary from Self-Conscious patterns of withdrawal (Younger, Schneider, Wadson, Guirguis, & Bergeron, 2000), both of which resemble the RCP Shy-Withdrawn scale in assessing social motivation rather than Peer Isolation or Sad-Sensitive affect. Similarly, Coplan and colleagues (Coplan et al., 2004) developed a measure to distinguish "conflicted shyness" from "social disinterest," both of which are grouped together on the present Shy-Withdrawn scale.

Within the broad domain of sociability, the Popularity-Leadership and Prosocial behavior scales closely mirror scales identified in other factor-analytic

studies of the RCP (Casiglia et al., 1998; Krispin et al., 1992; Luthar & McMahon, 1996; Realmuto et al., 1997; Zeller et al., 2003). The moderate correlation between the two scales is consistent with the view that many children achieve popularity-leadership through Prosocial behavioral styles, but regression models in which each scale's contribution was adjusted for the presence of the other highlight their distinctive correlates. In these models, Prosocial reputations uniquely predicted positive changes in academic competence over a 10-year period; whereas popularity-leadership was *positively* associated with concurrent externalizing behavior problems, but predicted positive changes in social competence and emerging romantic competence over a 10-year period. The correlates of popularity-leadership were strikingly similar to those identified for perceived popularity (Cillessen & Mayeux, 2004; LaFontana & Cillessen, 1999, 2002; Parkhurst & Hopmeyer, 1998; Rose et al., 2004). This is not surprising because both measures require respondents to identify classmates held in high regard *by peers* rather than by the nominator, resulting in a consensual social construction of perceived social status. From this perspective, some students perceived as popular may achieve status with coercive interpersonal strategies that are perhaps disliked by many students, but which may be supported by friends and afford a general reputation for being socially prominent or "cool" (Farmer et al., 2003; Rodkin et al., 2000).

There were some differences in the correlates of the RCP scales for students according to ethnic-racial majority/minority status. Popularity-leadership was associated with lower job and academic competence and higher externalizing behavior problems for Caucasian/non-Hispanic majority youth, but not for racial/ethnic minority youth. Conversely, Prosocial reputations were more strongly associated with positive adaptation for minority youth in two instances. In other words, popularity-leadership and Prosocial behavior were unambiguously positive developmental predictors for minority youth (even after accounting for socioeconomic status). No other studies of the RCP have tested for such effects. These ethnic-racial differences could indicate that some youth in the racial/ethnic majority may achieve social status through aversive interpersonal strategies that ultimately undermine job and academic functioning and contribute to externalizing problems, whereas minority youth may be more dependent on Prosocial strategies to facilitate adaptation. This would be consistent with evidence that the racial composition of schools can moderate the correlates of peer experiences. For example, peer victimization for African American youth was lower in racially integrated schools than in nonintegrated schools, whereas the

reverse pattern was obtained for White children (Hanish & Guerra, 2000).

The positive correlates of Popular-Leader and Prosocial reputations for minority youth contrast with other studies of urban minority youth that have linked social status with aggression and high academic achievement with low peer acceptance (Luthar & McMahon, 1996), perhaps reflecting an effort by minority youth to seek self-definitions that are distinct from and opposed to the majority culture (Ogbu, 1978; Comer, 1974). The fact that this did not occur among the urban minority youth in the present study may reflect the more diverse socioeconomic or racial/ethnic make-up of the participating school communities. More broadly, these findings underscore the importance of considering how the cultural context of schools and communities may alter the developmental meaning of specific dimensions of social reputation (Casaglia et al., 1998; Chen et al., 2002; Krispin et al., 1992).

In several instances the broad-band scales accounted for as much variance in future adaptation as the narrow-band scales, suggesting that broad-band scales may continue to be useful in studies requiring a parsimonious summary of social competence. However, for three of the six outcome domains, the narrow-band scales accounted for more variance than the broad-band scales, and each narrow-band scale had unique and theoretically expected correlates. A focus on narrow-band predictors is important for theory development and may be particularly critical when the outcome measures are comparably narrow in focus (Bukowski & Adams, 2005). If a subset of RCP items must be chosen to reduce administration time, the narrow-band scales may help to ensure that the abbreviated scales capture the full range of RCP item content.

The present nonclinical, community sample supports the relevance of peer experiences for variations in adaptation within the normative range, but does not establish the utility of the RCP as a predictor of clinically significant psychopathology. More studies are also necessary to determine whether the *narrow-band* structure of the RCP is sensitive to variations in student grade, ethnicity, and school context. Other studies suggest that at least some cross-cultural similarities exist: there are striking similarities in the way the sociable-leader divides into two factors across a number of studies spanning different cultures, and the present correlates of the Popular-Leader and Prosocial scales are very similar to those identified in a study of Chinese youth (Chen et al., 2002). Efforts to replicate the present narrow-band scales, even if unsuccessful, are likely to illuminate developmental and contextual influences on children's social reputations. Future studies could also aim for more specific developmental

predictions. For example, does withdrawal from peers in childhood predict self-reported shyness in adulthood (Cheek & Buss, 1981)? Is inhibition (Gest, 1997; Kagan, Reznick, Clarke, Snidman, & Garcia-Coll, 1984) the mediator of this link? Does Prosocial behavior predict specific facets of later romantic relationship quality such as intimacy and conflict management that might result in more stable adult relationships or marriages?

The present study illustrates the limits of examining peer inventories within existing data sets. For example, the RCP Sensitive-Isolated items do not permit a distinction between “social disinterest” and “conflicted shyness” (Coplan et al., 2004). New or expanded peer inventories that allow for finer theoretical distinctions will play the major role in future studies of the significance of children’s reputation among peers (e.g., Salmivalli, Lagerspetz, Bjorkqvist, Osterman, & Kauklainen, 1996; Weiss et al., 2002; Younger et al., 2000). Similarly, the present participants were all within the developmental period characterized as “emerging adulthood” (Arnett, 2000) at the 10-year follow-up, but variation in their ages (17–24 years) may have been related to variations in the salience of the emerging developmental tasks (Roisman et al., 2004) and thus diminished the chances of finding specific predictive associations. Until more differentiated measures and new longitudinal studies based on them become available, much can be gleaned from the data available in ongoing long-term longitudinal studies like this one that included peer assessments.

These findings affirm the view that peer reputation during middle childhood is a marker of processes associated with subsequent well being and success in major developmental tasks (Hartup, 1970; Kohlberg et al., 1972). The numerous links between narrow-band dimensions of peer reputation and specific aspects of later adaptation suggest that diverse developmental processes are likely at work (Bukowski & Adams, 2005; Deater-Deckard, 2001; Masten, 2005). These long-term developmental findings lend importance to ongoing efforts to understand these processes such as continuity in dispositions that underlie both peer reputation and later adaptation, and possible transactional effects of peer reputation on self- and social cognition and socialization experiences.

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