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# A Multiperspective Comparison of Peer Sociometric Status Groups in Childhood and Adolescence

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HATZICHRISTOU, CHRYSÉ, and HOPF, DIETHER. *A Multiperspective Comparison of Peer Sociometric Status Groups in Childhood and Adolescence*. CHILD DEVELOPMENT, 1996, 67, 1085–1102. This study explores the sociometric status group differences in psychosocial adjustment and academic performance in various domains using multiple sources of information (teacher-, peer-, self-ratings, achievement data) and 2 age groups (elementary and secondary school students) in a different educational and cultural context. Gender differences in the profiles of the sociometric groups were also examined. The sample consisted of 1,041 elementary school (mean age = 11.4 years) and 862 secondary school (mean age = 14.3 years) students in public schools in Greece. Findings extended previous descriptions of rejected, neglected, and controversial groups based on the perceptions of all raters. Gender and age differences were found in the profiles of rejected and controversial groups, which were markedly distinguished from the other groups based on all data sets. Neglected children at both age levels were differentiated to a weaker degree.

The behavioral correlates of sociometric status in children have been extensively investigated in the relevant literature, but only a few studies have examined *age* differences in the psychosocial correlates of sociometric status in childhood and adolescence. Findings have indicated that there are age-related differences in children's perceptions of their peers' behavior (Coie, Dodge, & Coppotelli, 1982; Hatzichristou & Hopf, 1992a) and that aggression represents a well-defined category of maladjusted behavior for children at all ages, while social withdrawal becomes a more clearly defined and disliked behavior with increasing age and is more likely then to result in peer rejection (Rubin & Mills, 1988; Younger & Daniels, 1992; Younger, Schwartzman, & Ledingham, 1985, 1986). Results of two recent studies investigating the behavioral correlates of sociometric groups in adolescence (Frentz, Gresham, & Elliott, 1991; Parkhurst & Asher, 1992) suggested a continuity with previous studies of younger children in the behavioral characteristics associated with status. In the present study, status group profiles were examined in childhood and adolescence, including two age groups of students (elementary and secondary school). Based on the

above findings, we expected older children to differentiate more distinctly between their peers by being able to utilize more differentiated, dispositional characteristics than younger children. We hypothesized that the groups of rejected (and controversial) young adolescents would include individuals who were aggressive and exhibited other distinct patterns of nonaccepted behavior.

There has also been a lack of investigation in the relevant literature of *gender* differences in the behavioral profiles of the sociometric groups. Studies have either included exclusively male groups or have examined combined male-female groups, which, due to insufficient number of children within each sociometric group, were not explored in terms of gender differences. Relevant findings suggest that there are gender differences in the types of prosocial and agonistic behavior patterns of children in the various sociometric groups (Ladd, 1983). French (1990) has further found that aggression is not strongly associated with deviance in rejected girls. Gender differences in the profiles of the extreme sociometric groups were expected, with boys exhibiting more

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frequently externalizing problems and girls exhibiting more frequently internalizing problems.

Only a few studies on the behavioral bases of children's peer status have also used *multiple sources* of information, especially where self-reports are concerned (Parker & Asher, 1987). Most recently, only three studies in the relevant literature aimed at exploring various aspects of children's self-perceptions in elementary school as related to peer status (Boivin & Begin, 1989; Hymel, Bowker, & Woody, 1993; Patterson, Kuper-smidt, & Griesler, 1990). Differences in self-concept were found among subgroups of rejected children, while neglected children reported lower social competence with peers. Available evidence further suggests the importance of using a multimethod assessment approach (teacher, peer, and self-ratings and/or behavioral observations) of children's behavioral patterns and competence across various domains (Asher & Hymel, 1981; Coie & Dodge, 1988; Hatzichristou, 1987). Status group differences in multiple domains were assessed in the present study. The questions were raised which ratings better predict sociometric group membership and whether the evaluations of the various raters discriminate equally effectively between the sociometric groups. In addition, based on the perceptions of all raters, consistently maladaptive students were identified and described.

The present study differs also from other relevant studies in the aspect of *cultural and educational context*; the sample consists of Greek students attending public schools in Greece. By extending this research to a different context, we hope to acquire a broader understanding of children's peer relations and social functioning in their environment, since children's behavioral patterns are connected to particular demands and experiences within specific settings (Epstein, 1989; Ladd, 1989). American and other Western cultures are considered to be more individualistic cultures, while Greece is considered to be a collectivist culture with more group-oriented members and a greater role differentiation based on age and gender (Triandis, Vassiliou, & Nassiakou, 1968). Despite changes in various realms and in family values, there is still a clear sex discrimination against females in nearly every aspect of life (Kantartzi, 1991). Thus, we expected to find strong gender-related differences in various aspects of children's psychosocial functioning.

The Greek school system consists of a 6-year elementary school followed by a 3-year junior high school (*Gymnasio*) and a 3-year high school (*Lykio*). A unique feature of the Greek educational system is the high percentage of male teachers in primary education (50.7%; secondary education: 43.5% male teachers; Schümer, 1992) in comparison to all European countries and Canada, Japan, and the United States as well. We expected nonnegligible effects of the teacher gender variable on student measures which are usually attributed to the students alone.

It has been argued that five major conditions in schools affect the social exchange among students (Epstein, 1989): architectural features of the school building, equipment and supplies, demographic factors, instructional methods, and the organization of nonacademic activities. Several of these conditions limit the social interactions of students in Greek schools, for example, there is usually not any kind of small group activity within a class that encourages children to work together and help each other; the curriculum is fully prescribed for every grade and every school of the country; teachers usually follow the traditional method of instruction that discourages students from interacting with their classmates; there are no lunchrooms (there is not a lunch break since school lasts only until about 1:30 P.M.), where most unstructured activities in American schools take place; there are no particular sports opportunities or extracurricular activities. Under these conditions, students' opportunities for greater visibility in the school and the community, which normally serve as avenues for attaining peer status, are limited; academic achievement is usually the most important avenue available in the Greek schools as well as in the Greek society. Greek parents put a lot of emphasis on the education of their children, which is connected to social elevation aspirations of the family (Katakis, 1984). This societal norm was also found to be reflected in the children's self-perceptions, where school performance was connected to many dimensions of self-concept and parental attitudes (Hatzichristou & Hopf, 1992c). Students with learning problems were found to be less accepted and more rejected by their peers in the Greek schools (Hatzichristou & Hopf, 1993). Thus, we expected school achievement to play a critical role in determining whether peers would accept or reject a fellow student.

## Method

### Sample

The sample consisted of two age groups: (a) 10–12-year-old ( $M = 11.4$ ,  $SD = 0.65$ ) elementary school pupils (fifth and sixth grades, 37 classes,  $N = 1,041$ ) and (b) 13–16-year-old ( $M = 14.3$ ,  $SD = 0.91$ ) secondary school students (first, second, third grades of junior high school and first grade of high school, 30 classes,  $N = 862$ ). Of the 1,041 children in group A, 49.7% were boys ( $N = 517$ ) and 50.3% were girls ( $N = 524$ ), and of the 862 adolescents in group B, 52.2% were boys ( $N = 450$ ) and 47.8% were girls ( $N = 412$ ). The students attended public schools in various towns and cities in northern Greece. Both elementary and secondary school students have classes with 28 peers on average who remain together during school hours. Following the official guidelines and procedures of the Greek Ministry of Education for conducting research in the Greek schools, the permission for students' and teachers' participation was obtained. The participation of the teachers and the students was voluntary. All teachers and students asked agreed to participate. There were 82% male and 18% female teachers in the elementary school sample (due to the usual trend of male teachers teaching at fifth and sixth grade) and 30% male and 70% female teachers in the secondary school sample.

### Instruments and Procedures

The instruments of the study had to be translated into Greek for the purpose of this study, and they were analyzed for their psychometric features. The classical factor solution method followed by VARIMAX rotation was used for the factor analysis of the instruments, and indices and scales to be used for group comparisons were determined. Missing cases in this phase of data analysis were excluded either listwise or pairwise. Reliabilities of scales were computed using Cronbach's alpha coefficient. Detailed descriptions of the adaptation and analyses of the instruments are included in previous papers (Hatzichristou & Hopf, 1991, 1992a, 1992b, 1992c; Hopf & Hatzichristou, 1994).

**Peer nomination assessment.**—The students in each classroom were asked to list three classmates whom they "like the most"

and three whom they "like the least." The sociometric status group classification was based on the procedure and criteria described by Coie et al. (1982). The total number of "liked most" (LM) and "liked least" (LL) peer nominations received by each student was tallied and standardized within each classroom. The social preference ( $SP = LM - LL$ ) and the social impact ( $SI = LM + LL$ ) scores were then computed, and the children were classified into the five sociometric groups.

By following the above procedure, 15.7% ( $N = 153$ , males ( $M$ ) = 93, females ( $F$ ) = 60) of elementary school children were classified as *popular*, 13.4% ( $N = 130$ ,  $M = 72$ ,  $F = 58$ ) as *rejected*, 17.3% ( $N = 168$ ,  $M = 95$ ,  $F = 73$ ) as *neglected*, 9.4% ( $N = 91$ ,  $M = 29$ ,  $F = 62$ ) as *controversial*, and 44.3% ( $N = 431$ ,  $M = 195$ ,  $F = 236$ ) as *average*. In secondary school, 13.0% ( $N = 102$ ,  $M = 57$ ,  $F = 45$ ) of the children were classified as *popular*, 14.6% ( $N = 115$ ,  $M = 63$ ,  $F = 52$ ) as *rejected*, 15.2% ( $N = 119$ ,  $M = 73$ ,  $F = 46$ ) as *neglected*, 13.1% ( $N = 103$ ,  $M = 45$ ,  $F = 58$ ) as *controversial*, and 44.1% ( $N = 346$ ,  $M = 163$ ,  $F = 183$ ) as *average*.

The students were also asked to name two classmates who best fit each of seven behavioral descriptions (see Table 1) (Coie et al., 1982). The total number of first choice nominations<sup>1</sup> received by each student for each behavioral description was standardized within each classroom. The factor analysis of these peer behavioral variables yielded three factors. For the elementary school group: Factor 1, Popular/Prosocial Behavior ( $\alpha = .66$ ); Factor 2, Antisocial/Aggressive Behavior ( $\alpha = .67$ ); and Factor 3, Introverted Behavior; the factors explain 66.6% of the variance. For the secondary school group: Factor 1, Aggressive Behavior ( $\alpha = .75$ ); Factor 2, Popular/Prosocial Behavior ( $\alpha = .60$ ); Factor 3, Nonaccepted Behavior ( $\alpha = .67$ ); the factors explain 67.7% of the variance (Hatzichristou & Hopf, 1992a).

**Teacher rating.**—Teachers completed a revised and translated version of the Pupil Behavior Rating Scale (PBRs; Lambert & Bower, 1962), which consists of 11 attributes (school-related behavior; five-point Likert-type scale; see Table 2), for each student in every class. Three factors were extracted by

<sup>1</sup> The particular items were selected based on their relevance to the Greek educational context. Only the first choices were used further because the instruction of the questionnaire did not force the students to name more than one peer in each question. This was done, after pretesting, in order not to endanger the willingness of the students to cooperate in the study.

the factor analysis of the 11 variables which are similar to the factors found in American research and explain 75.4% and 70.7% of the variance for elementary and secondary school samples, respectively (Hatzichristou & Hopf, 1991, 1992b). Factor 1 consists of the items relevant to successful learning (*Classroom Adaptation*; elementary school:  $\alpha = .91$ , secondary school:  $\alpha = .92$ ). Factor 2 consists of the items assessing interpersonal and social skills (*Interpersonal Behavior*; elementary school:  $\alpha = .79$ , secondary school:  $\alpha = .86$ ). Factor 3 consists of the items assessing intrapersonal and psychological factors (*Intrapersonal Behavior*; elementary school:  $\alpha = .71$ , secondary school:  $\alpha = .71$ ).

*Achievement.*—Elementary school teachers were asked to evaluate their students' general school performance on a scale of 1 (poor) to 4 (excellent). Achievement data (teacher grades: grade point average) on language, mathematics, and history courses from the end of the academic year were also obtained from school records (elementary school: grades A, B, C; secondary school: grades 1–20: 10 = pass grade, 20 = excellent).

*Self-rating.*—Students also completed a translated version of the Self-Description Questionnaire<sup>2</sup> (SDQ) (five-point Likert-type scale). The factor analysis of SDQ I for elementary school pupils (Marsh, Parker, & Smith, 1983) yielded eight factors, which explain 46.8% of the variance (Hatzichristou & Hopf, 1992c). The eight factors were labeled as follows: F1, Mathematics ( $\alpha = .91$ ); F2, Physical Appearance–Self-Concept ( $\alpha = .88$ ); F3, Interest in Learning and School Subjects ( $\alpha = .87$ ); F4, Physical Abilities/Sports ( $\alpha = .81$ ); F5, School Performance–Self-Concept ( $\alpha = .78$ ); F6, Learning Ability ( $\alpha = .80$ ); F7, Relationships with Parents ( $\alpha = .64$ ); and F8, Relationships with Peers ( $\alpha = .70$ ). The SDQ II for secondary school students (Marsh & Barnes, 1982; Marsh, Parker, & Barnes, 1985) consists of 102 items (five-point Likert-type scale). The factor analysis yielded 10 factors, which explain 42.9% of the variance (Hatzichristou & Hopf, 1992c). The 10 factors were labeled as follows: F1, Physical Abilities ( $\alpha = .91$ ); F2, School

Achievement–Verbal Competence ( $\alpha = .85$ ); F3, Physical Appearance–Self-Concept ( $\alpha = .86$ ); F4, Mathematics ( $\alpha = .89$ ); F5, Relations with Opposite Sex Peers ( $\alpha = .82$ ); F6, General Self ( $\alpha = .73$ ); F7, Relations with Parents ( $\alpha = .75$ ); F8, Emotional Stability ( $\alpha = .77$ ); F9, Academic Motivation ( $\alpha = .77$ ); and F10, Relations with Same Sex Peers ( $\alpha = .67$ ).

## Results

Adjustment differences across sociometric status groups were assessed by multivariate analyses of variance (using Wilks's procedure), computed separately for the variables within each data source (peer, teacher, achievement, self) for each age group.<sup>3</sup> Subsequent unbalanced univariate ANOVAs (for unequal cell sizes) within each data set were computed, followed by Newman-Keuls multiple range tests to assess between-group differences. The interactions between sociometric status and gender were tested for both age groups. The question of whether status has different correlates at different grade levels in secondary school has been addressed by testing the interaction effects. The interactions between sociometric status and teacher's gender were also examined for the teacher-rating factors. Discriminant function analyses were further performed for each age group in order to compare the predictive power of each data set (peers, teachers, and self) separately for boys and girls. Finally, a second-order factor analysis was conducted on the factors of all measures for each age group in order to identify and describe the consistently maladaptive group of students combining the perspectives of all raters. Due to multiple data sources many interesting results were obtained, out of which only a limited number can be reported; tables should be inspected for additional information.

### Elementary School

*Peer assessment.*—Chi-square tests were performed to examine whether boys and girls were differentially selected to the five status groups. The tests were significant for popular and controversial groups. Boys were more likely to be selected to the popu-

<sup>2</sup> Concerning the self-rating, the instruments used differ from the English versions of the questionnaires (of 1982/1983) in some aspects. For details, see Hatzichristou and Hopf (1992c).

<sup>3</sup> All analyses were done within the two age groups, elementary and secondary school students, separately, since not all instruments were identical for the two samples. The assessment of age effects was, therefore, done within each age group. The separate analysis was also regarded as more appropriate, due to the structural and administrative differences of primary and secondary education levels in Greece.

lar group,  $\chi^2 = 7.66$ ,  $p < .006$ , girls to the controversial group,  $\chi^2 = 11.45$ ,  $p < .001$ .

The multivariate analysis of the seven peer assessment variables yielded a significant multivariate effect for sociometric status. Subsequent ANOVAs showed significant main effects of sociometric status for all peer assessment variables and factors, except the "shy and sensitive" variable and the Introverted Behavior factor (see Table 1).

Furthermore, a significant multivariate interaction effect between status and gender for the peer-rating variables was found,  $F(28, 3,416) = 2.97$ ,  $p < .001$ . Significant univariate interaction effects were also found for the variable "leader in school," where popular and controversial boys obtained about twice as many nominations as girls. Girls in the controversial group were most visible by trying to behave "in a proper way to gain the teacher's approval." Concerning the Antisocial/Aggressive Behavior factor, rejected and controversial boys scored especially high on this factor.

*Teacher rating and achievement.*—Significant multivariate and univariate main effects of sociometric status were obtained for all teacher-rating variables and factors as well as for achievement variables (see Table 2).

Significant univariate interaction effects between status and gender were found for the Interpersonal Behavior factor,  $F(4, 963) = 3.90$ ,  $p < .004$ , and the Intrapersonal Behavior factor,  $F(4, 963) = 2.32$ ,  $p < .05$ . Rejected boys exhibited the most interpersonal difficulties, while rejected girls were evaluated as having the most (and controversial boys least) intrapersonal difficulties.

A significant interaction between status and teacher's gender was further found for the Intrapersonal Behavior factor,  $F(9, 963) = 2.70$ ,  $p < .03$ , which showed that female teachers perceived rejected children as having most problems.

*Self-rating.*—A significant multivariate status main effect was obtained for the self-rating factors, and significant univariate effects were found for two factors: Relationships with Peers and School Performance–Self-Concept (see Table 3).

Significant univariate interaction effects between status and gender were found for

the School Performance–Self-Concept factor,  $F(4, 963) = 3.02$ ,  $p < .017$ , and for the Learning Ability factor,  $F(4, 963) = 3.10$ ,  $p < .015$ . Rejected girls showed especially low school performance and learning ability self-concept, while controversial girls scored particularly high in these factors.

*Peer assessment, teacher rating, and self-rating.*—A stepwise discriminant function analysis was performed investigating the 14 variables (three teacher-rating, three peer-rating, and eight self-rating factors) *separately for boys and girls*. Two significant functions were found for each gender group (boys: canonical correlations of .38 and .31, Wilks's lambda of .74 and .86; girls: canonical correlations of .43 and .32, Wilks's lambda of .69 and .85).

Function 1 most clearly differentiated the rejected children from the other groups; this was true for boys as well as for girls. Rejected *boys* were characterized<sup>4</sup> by this function by lack of prosocial behavior (PF1), low classroom adaptation (TF1), negative physical appearance self-concept (SF2), and high peer antisocial/aggressive behavior (PF2). Rejected *girls* were characterized by a negative self-concept regarding achievement (SF5), lack of peer popular/prosocial behavior (PF1), and negative intrapersonal behavior and classroom adaptation (TF3 and TF1).

Function 2 segregated the controversial children most clearly from the other sociometric groups; this was again true for boys as well as for girls. Controversial *boys* were described by popular/prosocial *and* antisocial/aggressive behavior toward peers (PF1 and PF2), negative self-concept regarding achievement, especially mathematics (SF5 and SF1), and negative self-concept concerning peer relationships (SF8). For boys, the teacher-rating instrument did not have discriminating power. Controversial *girls*, on the other hand were described best again by antisocial/aggressive *and* popular/prosocial behavior toward peers (PF2 and PF1), by negative classroom adaptation (TF1), negative intrapersonal behavior (TF3), but positive interpersonal behavior (TF2).

The accuracy of classification was similar for boys and girls: in both groups, the rejected children were the most visible group, and the average children had a low

<sup>4</sup> These predictors had standardized canonical discriminant function coefficients in excess of 0.20.

TABLE 1

ELEMENTARY SCHOOL: MANOVA AND ANOVA EFFECTS AND STANDARDIZED MEANS FOR PEER NOMINATIONS BY SOCIOMETRIC STATUS GROUP  
(Means for Peer Nominations by Group and Gender—Males, Females—in Parentheses)

CRITERION AND VARIABLES	SOCIOMETRIC STATUS GROUP						F
	Popular	Rejected	Neglected	Controversial	Average		
MANOVA .....	...	...	...	...	...	...	7.05**
1. Leader in school .....	2.08 <sub>ace</sub> (2.8, 1.0)	.28 <sub>ab</sub> (.37, .17)	.40 <sub>cd</sub> (.43, .36)	2.13 <sub>bdf</sub> (3.0, 1.7)	.77 <sub>ef</sub> (.69, .84)		16.21**
2. Quarrels often with other students .....	.63 <sub>ab</sub> (.62, .63)	1.49 <sub>aceg</sub> (2.0, .86)	.77 <sub>ef</sub> (1.1, .38)	2.11 <sub>bdfg</sub> (2.8, 1.8)	.75 <sub>cd</sub> (.86, .66)		11.00**
3. Shy and sensitive .....	.97 ( .75, 1.3)	1.13 (.94, 1.4)	.95 (.73, 1.2)	.89 (.62, 1.0)	.86 (.73, .98)		.66
4. Liked by everybody and helps everybody .....	1.84 <sub>ch</sub> (1.5, 2.4)	.15 <sub>abc</sub> (.12, .17)	.40 <sub>def</sub> (.43, .37)	1.60 <sub>beg</sub> (1.2, 1.8)	.90 <sub>adgh</sub> (.67, 1.1)		22.54**
5. Snobbish and arrogant .....	.69 <sub>a</sub> (.78, .53)	1.05 <sub>d</sub> (1.12, .95)	.78 <sub>b</sub> (.91, .60)	1.65 <sub>abcd</sub> (1.4, 1.7)	.83 <sub>c</sub> (.84, .83)		7.24**
6. Tries to behave in a proper way to gain the teacher's approval .....	.95 <sub>d</sub> (.59, 1.6)	.45 <sub>a</sub> (.60, .27)	.59 <sub>b</sub> (.48, .73)	2.35 <sub>abcd</sub> (1.5, 2.7)	.81 <sub>c</sub> (.44, 1.1)		17.60**
7. Gets into trouble with the teacher .....	.88 <sub>c</sub> (.98, .73)	1.72 <sub>abc</sub> (2.9, .29)	.62 <sub>b</sub> (.87, .29)	1.26 (2.9, .50)	.61 <sub>a</sub> (1.0, .27)		5.35**
PF1, Popular-Prosocial Behavior (items 4, 1, 6) <sup>1</sup> .....	.40 <sub>beg</sub> (.35, .48)	-.42 <sub>abc</sub> (-.42, -.41)	-.27 <sub>def</sub> (-.28, -.25)	.63 <sub>cfhi</sub> (.42, .72)	-.04 <sub>adgh</sub> (-.19, .09)		26.34**
PF2, Antisocial/Aggressive Behavior (items 2, 7, 5) <sup>1</sup> .....	-.19 <sub>ab</sub> (-.14, -.25)	.34 <sub>ace</sub> (.67, -.08)	-.09 <sub>ef</sub> (.04, -.26)	.49 <sub>bdf</sub> (.87, .32)	-.11 <sub>cd</sub> (-.01, -.19)		12.67**
PF3, Introversed Behavior (item 3) <sup>1</sup> .....	-.11 (-.32, .20)	.10 (-.02, .26)	.02 (-.11, .19)	.07 (-.33, .26)	-.03 (-.15, .06)		1.13

NOTE.—Means with the same subscript are significantly different from each other ( $p < .05$ ) in a Newman-Keuls multiple-range test for that criterion variable.

<sup>1</sup> Items with highest loadings.

\*  $p < .05$ .

\*\*  $p < .01$ .



TABLE 2

ELEMENTARY SCHOOL: MANOVA AND ANOVA EFFECTS AND MEANS FOR TEACHER RATINGS OF CHILDREN'S ADJUSTMENT BY SOCIOMETRIC STATUS GROUP (Means for Teacher Ratings by Group and Gender—Males, Females—in Parentheses)

CRITERION AND VARIABLES	SOCIOMETRIC STATUS GROUP						F
	Popular	Rejected	Neglected	Controversial	Average		
<b>Teacher:</b>							
MANOVA .....	...	...	...	...	...	...	2.34**
1. Quarrels with others more often .....	3.87 (3.6, 4.3)	3.67 <sub>a</sub> (3.3, 4.2)	3.86 (3.5, 4.3)	3.89 (3.1, 4.2)	4.03 <sub>a</sub> (3.7, 4.3)	3.18**	
2. Difficulty in following directions ....	4.07 <sub>de</sub> (3.9, 4.3)	3.09 <sub>abcd</sub> (3.0, 3.2)	3.71 <sub>ae</sub> (3.6, 3.8)	3.91 <sub>b</sub> (3.6, 4.0)	3.93 <sub>c</sub> (3.7, 4.1)	15.43**	
3. Immature/inappropriate re- sponses .....	4.48 <sub>b</sub> (4.3, 4.7)	4.01 <sub>abcd</sub> (3.8, 4.3)	4.40 <sub>a</sub> (4.2, 4.6)	4.52 <sub>c</sub> (4.3, 4.6)	4.56 <sub>d</sub> (4.4, 4.7)	10.06**	
4. Isolated .....	4.63 <sub>d</sub> (4.6, 4.6)	4.24 <sub>abcd</sub> (4.4, 4.0)	4.44 <sub>a</sub> (4.4, 4.4)	4.58 <sub>c</sub> (4.7, 4.5)	4.49 <sub>b</sub> (4.4, 4.5)	4.33**	
5. Distracted .....	4.27 <sub>de</sub> (4.1, 4.5)	3.35 <sub>abcd</sub> (3.3, 3.5)	3.93 <sub>ae</sub> (3.8, 4.1)	4.03 <sub>b</sub> (3.7, 4.2)	4.06 <sub>c</sub> (3.8, 4.2)	14.05**	
6. Dangerous behavior .....	4.60 <sub>a</sub> (4.4, 4.8)	4.36 <sub>abcd</sub> (4.0, 4.7)	4.62 <sub>b</sub> (4.4, 4.9)	4.72 <sub>d</sub> (4.4, 4.9)	4.70 <sub>c</sub> (4.5, 4.8)	5.47**	
7. Does not like school/no enthusi- asm .....	4.51 <sub>d</sub> (4.3, 4.8)	3.65 <sub>abcd</sub> (3.5, 3.9)	4.21 <sub>a</sub> (4.1, 4.4)	4.31 <sub>b</sub> (4.2, 4.3)	4.36 <sub>c</sub> (4.2, 4.5)	14.31**	
8. Difficulty in learning .....	4.30 <sub>de</sub> (4.1, 4.6)	3.31 <sub>abcd</sub> (3.3, 3.3)	3.86 <sub>ae</sub> (3.8, 3.9)	4.15 <sub>c</sub> (4.1, 4.2)	4.10 <sub>b</sub> (3.9, 4.2)	15.14**	
9. Sick or stays home when prob- lems .....	4.68 <sub>b</sub> (4.6, 4.8)	4.43 <sub>ab</sub> (4.5, 4.4)	4.51 (4.5, 4.4)	4.56 (4.6, 4.5)	4.65 <sub>a</sub> (4.6, 4.7)	3.64**	
10. Unhappy/depressed .....	4.71 <sub>d</sub> (4.7, 4.7)	4.28 <sub>abcd</sub> (4.5, 4.0)	4.54 <sub>a</sub> (4.6, 4.5)	4.59 <sub>b</sub> (4.6, 4.5)	4.60 <sub>c</sub> (4.5, 4.6)	5.82**	
11. Not obedient .....	4.81 <sub>c</sub> (4.8, 4.9)	4.55 <sub>abcd</sub> (4.3, 4.8)	4.72 <sub>a</sub> (4.6, 4.9)	4.75 <sub>b</sub> (4.7, 4.8)	4.81 <sub>d</sub> (4.7, 4.9)	5.45**	
TF1, Classroom Adaptation (items 2, 8, 5, 7) <sup>1</sup> .....	.25 <sub>de</sub> (.09, .48)	-.55 <sub>abcd</sub> (-.58, -.51)	-.06 <sub>ae</sub> (-.12, .01)	.08 <sub>c</sub> (-.07, .16)	.07 <sub>b</sub> (-.11, .21)	13.65**	
TF2, Interpersonal Behavior (items 1, 6, 11, 3) <sup>1</sup> .....	-.09 (-.27, .20)	-.25 <sub>a</sub> (-.75, .39)	-.04 (-.33, .35)	-.00 (-.50, .23)	.11 <sub>a</sub> (-.12, .31)	3.79**	
TF3, Intrapersonal Behavior (items 4, 10, 9) <sup>1</sup> .....	.17 <sub>a</sub> (.24, .07)	-.19 <sub>a</sub> (.11, -.57)	-.05 (.08, -.22)	.03 (.36, -.12)	.02 (.10, -.03)	2.49*	
<b>Achievement:</b>							
MANOVA .....	...	...	...	...	...	6.41**	
General school performance <sup>2</sup> .....	3.18 <sub>de</sub> (3.0, 3.4)	2.18 <sub>abcd</sub> (2.2, 2.2)	2.83 <sub>ae</sub> (2.9, 2.8)	3.07 <sub>c</sub> (2.8, 3.2)	2.97 <sub>b</sub> (2.8, 3.09)	24.96**	
Language <sup>3</sup> .....	1.48 <sub>abcd</sub> (1.5, 1.4)	1.89 <sub>def</sub> (1.9, 1.9)	1.68 <sub>fg</sub> (1.7, 1.6)	1.61 <sub>bf</sub> (1.7, 1.6)	1.60 <sub>ae</sub> (1.7, 1.5)	13.89**	
History <sup>3</sup> .....	1.40 <sub>a</sub> (1.4, 1.4)	1.77 <sub>abcd</sub> (1.8, 1.7)	1.54 <sub>cd</sub> (1.5, 1.6)	1.52 <sub>c</sub> (1.5, 1.5)	1.50 <sub>b</sub> (1.5, 1.4)	11.98**	
Mathematics <sup>3</sup> .....	1.51 <sub>abcd</sub> (1.5, 1.5)	1.93 <sub>def</sub> (1.9, 2.0)	1.70 <sub>fg</sub> (1.6, 1.7)	1.69 <sub>bf</sub> (1.7, 1.7)	1.65 <sub>ae</sub> (1.7, 1.6)	12.42**	

NOTE.—Teacher rating scale: 1 = always, 5 = never (no problem). Means with the same subscript are significantly different from each other ( $p < .05$ ) in a Newman-Keuls multiple-range test for that criterion variable.

<sup>1</sup> Items with highest loadings.

<sup>2</sup> Scale: 1 = poor, 4 = excellent.

<sup>3</sup> Grades: 1 = A, 2 = B, 3 = C.

\*  $p < .05$ .

\*\*  $p < .01$ .

TABLE 3

ELEMENTARY SCHOOL: MANOVA AND ANOVA EFFECTS AND MEANS FOR SELF-RATING FACTORS BY SOCIOMETRIC STATUS GROUP  
(Means for Self-Rating Factors by Group and Gender—Males, Females—in Parentheses)

SELF-RATING FACTORS <sup>1</sup>	SOCIOMETRIC STATUS GROUP						F
	Popular	Rejected	Neglected	Controversial	Average		
MANOVA .....	...	...	...	...	...	...	2.92**
SF1, Mathematics .....	.07 (.10, .02)	-.14 (-.15, -.13)	-.02 (.11, -.19)	-.16 (.01, -.24)	.08 (.17, .00)		2.05
SF2, Physical Appearance—Self- Concept .....	.15 (.22, .03)	-.08 (-.09, -.05)	-.02 (.12, -.21)	.14 (.41, .02)	-.05 (.03, -.12)		1.72
SF3, Interest in Learning and School Subjects .....	-.09 (-.25, .16)	.05 (-.14, .29)	-.03 (-.21, .20)	-.09 (-.29, .01)	.06 (-.11, .19)		.96
SF4, Physical Abilities/Sports .....	.16 (.42, -.23)	.06 (.40, -.36)	.07 (.45, -.43)	-.09 (.42, -.33)	-.08 (.33, -.41)		2.14
SF5, School Performance—Self- Concept .....	-.19 <sub>a</sub> (-.14, -.25)	.55 <sub>abcd</sub> (.34, .79)	.09 <sub>b</sub> (.07, .11)	-.14 <sub>c</sub> (.16, -.28)	-.11 <sub>d</sub> (-.06, -.15)		13.50**
SF6, Learning Ability .....	-.05 (-.01, -.12)	-.09 (.10, -.33)	-.06 (-.21, .14)	.24 (.10, .30)	.04 (.04, .04)		1.93
SF7, Relationships with Parents .....	.08 (.07, .10)	.02 (-.19, .27)	.05 (.02, .08)	-.04 (-.05, -.03)	-.01 (-.07, .04)		.35
SF8, Relationships with Peers .....	.11 <sub>a</sub> (.15, .06)	-.24 <sub>abcd</sub> (-.21, -.27)	.09 <sub>b</sub> (.22, -.09)	.07 <sub>c</sub> (.17, .01)	.02 <sub>d</sub> (.01, -.05)		2.82*

NOTE.—Means with the same subscript are significantly different from each other ( $p < .05$ ) in a Newman-Keuls multiple-range test for that criterion variable.

<sup>1</sup> Except factor 5, items of the other factors have positive loadings.

\*  $p < .05$ .

\*\* $p < .01$ .

visibility. A clear difference was found concerning the popular children: while the instruments had the least accuracy for popular boys (32.3%), the popular girls were easily detected (50.0%). This might be the explanation why in some studies difficulties were reported in differentiating the popular children (Rogosch & Newcomb, 1989).

In order to explore further the special features of children with problems (and at the same time the power of the three instruments), *consistently maladaptive children* were selected on the basis of the three data sets. A second-order factor analysis was performed on the 14 factors of the three instruments. Three second-order factors were obtained, which explained 33.5% of the variance. Each factor contained significant loadings of all three instruments. The first second-order factor emphasized positive classroom adaptation, social behavior, and achievement self-concept; the second second-order factor described good interpersonal behavior as observed by teachers and peers, paired with a low physical abilities self-concept; the third second-order factor described good intrapersonal behavior as seen by teachers and peers and a positive physical abilities self-concept. These factors were stable over various solutions with different numbers of factors extracted.

When selecting consistently maladaptive children out of the whole sample according to the second-order factor scores, 83 children (8.2%) were found who scored below the mean of all three factor scores at the same time. Of these, 59% were boys (as compared to 48.8% in the group of the remaining 929 children;  $\chi^2 = 3.22, p < .073$ ). They were differently distributed over the five sociometric groups,  $\chi^2 = 17.1, p < .002$ , with particularly high frequency in the rejected group (27.3% as compared to 12.2%) and low frequency in the popular group (9.1% as compared to 16.3%). More children were coming from divorced families (see Hatzichristou, 1993) (11.9% as compared to 3.9%),  $\chi^2 = 5.81, p < .016$ . Children in need of special education (see Hatzichristou & Hopf, 1993) were also overrepresented in the group of the consistently maladaptive children (26.9% as compared to 7.6%),  $\chi^2 = 10.1, p < .001$ . Achievement was also substantially lower for the maladaptive children: general school performance,  $t = 9.04, p < .000$ , mathematics,  $t = -6.75, p < .000$ , language,  $t = -7.32, p < .000$ , and history achievement,  $t = -5.47, p < .001$ .

### Secondary School

*Peer assessment.*—Chi-square tests were performed to examine whether boys and girls were differentially selected to the status groups. Only one test was significant: boys were more likely to be selected to the neglected group than were girls,  $\chi^2 = 4.90, p < .027$ . A significant multivariate main effect of sociometric status was found for the pool of the seven peer-rating variables. The univariate main effects of sociometric status for all peer assessment variables and factors were also significant (see Table 4).

A significant multivariate interaction effect between status and gender was found for peer assessment variables,  $F(28, 2,665) = 1.48, p < .05$ . Significant univariate interactions showed that "leader in school" nominations were given mostly to popular boys, but also to controversial girls. In the Popular/Prosocial Behavior factor again controversial girls scored much higher than boys, while controversial (and rejected) boys dominated in the Aggressive Behavior factor.

*Teacher rating and achievement.*—Significant multivariate effects of sociometric status were obtained for teacher-rating variables and for achievement variables. Significant univariate effects for status were found for eight teacher-rating variables, the Classroom Adaptation factor, and for achievement variables (see Table 5).

A significant interaction effect between status and teacher's gender was found for the Classroom Adaptation factor,  $F(4, 775) = 2.98, p < .018$ . While male teachers evaluated rejected children as having very good classroom adaptation (actually the best of all groups), female teachers evaluated them as having the worst classroom adaptation.

Significant univariate interaction effects between status and grade were further found for the Classroom Adaptation factor,  $F(12, 765) = 3.17, p < .001$ , and the Intrapersonal Behavior factor,  $F(12, 765) = 2.83, p < .001$ . There is a steady improvement in class behavior and intrapersonal behavior over the 3 years of junior high school. Rejected and controversial adolescents show substantial problems in the first grade of junior high school and controversial students also in the first grade of high school.

A significant univariate interaction effect between status and student's gender was further found for math achievement,  $F(4, 713) = 2.89, p < .022$ , with girls in the

TABLE 4

SECONDARY SCHOOL: MANOVA AND ANOVA EFFECTS AND STANDARDIZED MEANS FOR PEER NOMINATIONS BY SOCIOMETRIC STATUS GROUP  
(Means for Peer Nominations by Group and Gender—Males, Females—in Parentheses)

CRITERION AND VARIABLES	SOCIOMETRIC STATUS GROUP						F
	Popular	Rejected	Neglected	Controversial	Average		
MANOVA .....	...	...	...	...	...	...	2.59**
1. Leader in school .....	1.57 <sub>ace</sub> (2.1, .84)	.31 <sub>ab</sub> (.51, .08)	.43 <sub>cd</sub> (.44, .41)	1.86 <sub>bdf</sub> (1.3, 2.3)	.51 <sub>ef</sub> (.47, .54)		9.34**
2. Quarrels often with other students .....	.43 <sub>ab</sub> (.60, .22)	1.25 <sub>b</sub> (1.4, 1.0)	.92 ( .88, 1.0)	1.21 <sub>a</sub> (1.8, .72)	.72 (1.0, .45)		3.18**
3. Shy and sensitive .....	.71 <sub>a</sub> (.77, .64)	1.44 <sub>abc</sub> (1.5, 1.4)	1.21 (1.2, 1.2)	.73 <sub>b</sub> (.64, .79)	.77 <sub>c</sub> (.86, .69)		3.90**
4. Liked by everybody and helps everybody .....	1.75 <sub>bdf</sub> (1.72, 1.80)	.32 <sub>ab</sub> (.28, .36)	.71 <sub>ef</sub> (.51, 1.0)	1.52 <sub>ace</sub> (.60, 2.24)	.61 <sub>cd</sub> (.32, .86)		12.55**
5. Snobbish and arrogant .....	.53 <sub>a</sub> (.60, .44)	.92 <sub>d</sub> (1.1, .73)	.54 <sub>b</sub> (.66, .35)	1.55 <sub>abcd</sub> (1.95, 1.24)	.67 <sub>c</sub> (.81, .54)		5.32**
6. Tries to behave in a proper way to gain the teacher's approval ....	.71 <sub>b</sub> (.56, .89)	.86 <sub>d</sub> (.54, 1.25)	.50 <sub>a</sub> (.49, .52)	1.70 <sub>abcd</sub> (1.24, 2.05)	.72 <sub>c</sub> (.45, .96)		4.55**
7. Gets into trouble with the teacher .....	.41 ( .72, .02)	1.23 (1.79, .56)	.53 ( .67, .30)	1.18 (2.4, .26)	.70 (1.0, .41)		2.68*
PF1, Aggressive Behavior (items 2, 7) <sup>1</sup> .....	-.21 <sub>ab</sub> (-.09, -.35)	.15 <sub>a</sub> (.32, -.05)	-.07 (-.04, -.13)	.17 <sub>b</sub> (.65, -.20)	-.03 (.12, -.17)		2.88*
PF2, Popular/Prosocial Behavior (items 1, 4) <sup>1</sup> .....	.46 <sub>bdf</sub> (.56, .34)	-.33 <sub>ab</sub> (-.33, -.34)	-.16 <sub>cd</sub> (-.22, -.07)	.43 <sub>ace</sub> (.01, .75)	-.10 <sub>ef</sub> (.22, .01)		16.21**
PF3, Nonaccepted Behavior (items 5, 6, 3) <sup>1</sup> .....	-.17 <sub>ab</sub> (-.21, -.13)	.13 <sub>a</sub> (.09, .19)	-.07 <sub>d</sub> (-.05, -.10)	.28 <sub>bcd</sub> (.26, .30)	-.09 <sub>c</sub> (-.10, -.08)		4.68**

NOTE.—Means with the same subscript are significantly different from each other ( $p < .05$ ) in a Newman-Keuls multiple-range test for that criterion variable.

<sup>1</sup> Items with highest loadings.

\*  $p < .05$ .

\*\*  $p < .01$ .

TABLE 5

SECONDARY SCHOOL: MANOVA AND ANOVA EFFECTS AND MEANS FOR TEACHER RATINGS OF CHILDREN'S ADJUSTMENT BY SOCIOMETRIC STATUS GROUP (Means for Teacher Ratings by Group and Gender—Males, Females—in Parentheses)

CRITERION AND VARIABLES	SOCIOMETRIC STATUS GROUP						F				
	Popular		Rejected		Neglected			Controversial		Average	
Teacher:											
MANOVA .....	...		...		...		...		...		2.12**
1. Quarrels with others more often ...	4.25	(4.1, 4.4)	4.05	(3.8, 4.3)	4.16	(4.0, 4.4)	3.99	(3.5, 4.3)	4.20	(3.9, 4.4)	1.42
2. Difficulty in following directions .....	3.99 <sub>def</sub>	(3.8, 4.2)	3.17 <sub>abcd</sub>	(3.1, 3.3)	3.49 <sub>ac</sub>	(3.3, 3.8)	3.74 <sub>c</sub>	(3.2, 4.1)	3.63 <sub>bf</sub>	(3.4, 3.8)	7.05**
3. Immature/inappropriate responses .....	4.55 <sub>bcd</sub>	(4.4, 4.7)	3.96 <sub>ab</sub>	(3.8, 4.2)	4.22 <sub>d</sub>	(4.0, 4.6)	4.12 <sub>c</sub>	(3.6, 4.5)	4.36 <sub>a</sub>	(4.1, 4.6)	6.44**
4. Isolated .....	4.58	(4.7, 4.4)	4.28	(4.3, 4.2)	4.33	(4.3, 4.3)	4.35	(4.4, 4.4)	4.32	(4.2, 4.4)	1.76
5. Distracted .....	4.13 <sub>a</sub>	(4.0, 4.3)	3.60 <sub>a</sub>	(3.4, 3.8)	3.80	(3.6, 4.1)	3.95	(3.4, 4.4)	3.91	(3.6, 4.2)	3.16**
6. Dangerous behavior .....	4.75	(4.6, 4.9)	4.52	(4.3, 4.8)	4.61	(4.4, 4.9)	4.51	(4.1, 4.8)	4.69	(4.5, 4.8)	2.48**
7. Does not like school/no enthusiasm .....	4.27 <sub>de</sub>	(4.1, 4.5)	3.47 <sub>abcd</sub>	(3.3, 3.7)	3.81 <sub>ac</sub>	(3.6, 4.1)	3.99 <sub>c</sub>	(3.4, 4.5)	3.95 <sub>b</sub>	(3.6, 4.3)	6.23**
8. Difficulty in learning .....	4.09 <sub>def</sub>	(3.9, 4.2)	3.22 <sub>abcd</sub>	(3.1, 3.3)	3.60 <sub>ac</sub>	(3.5, 3.7)	3.86 <sub>c</sub>	(3.3, 4.3)	3.67 <sub>bf</sub>	(3.4, 3.9)	7.34**
9. Sick or stays home when problems .....	4.67 <sub>a</sub>	(4.6, 4.7)	4.38 <sub>a</sub>	(4.2, 4.5)	4.54	(4.4, 4.7)	4.57	(4.4, 4.7)	4.61	(4.5, 4.7)	2.52*
10. Unhappy/depressed .....	4.63 <sub>a</sub>	(4.7, 4.6)	4.27 <sub>a</sub>	(4.3, 4.2)	4.37	(4.3, 4.5)	4.51	(4.3, 4.7)	4.38	(4.3, 4.5)	2.74*
11. Not obedient .....	4.75	(4.6, 4.9)	4.52	(4.3, 4.7)	4.49	(4.3, 4.8)	4.52	(4.2, 4.7)	4.57	(4.4, 4.7)	1.90
TF1, Classroom Adaptation (items 8, 2, 7, 5) <sup>1</sup> .....	.28 <sub>de</sub>	(.16, .43)	-.35 <sub>abcd</sub>	(-.40, -.30)	-.07 <sub>ac</sub>	(-.15, .06)	.16 <sub>c</sub>	(-.26, .50)	.02 <sub>b</sub>	(-.21, .22)	6.77**
TF2, Interpersonal Behavior (items 6, 11, 1, 3, 9) <sup>1</sup> .....	.12	(-.05, .35)	-.07	(-.39, .32)	-.01	(-.27, .38)	-.19	(-.64, .17)	.08	(-.11, .26)	2.07
TF3, Intrapersonal Behavior (items 4, 10) <sup>1</sup> .....	.21	(.36, .02)	-.02	(.08, -.15)	.02	(.01, .03)	.09	(.14, .04)	-.00	(-.04, .03)	1.17
Achievement:											
MANOVA .....	...		...		...		...		...		2.42**
Language .....	15.03 <sub>cef</sub>	(14.7, 15.5)	12.98 <sub>abc</sub>	(12.7, 13.3)	13.61 <sub>de</sub>	(13.2, 14.3)	14.55 <sub>bd</sub>	(13.1, 15.7)	14.02 <sub>df</sub>	(13.2, 14.7)	7.86**
History .....	15.97 <sub>ab</sub>	(15.8, 16.2)	14.37 <sub>a</sub>	(14.3, 14.4)	14.84 <sub>b</sub>	(14.5, 15.4)	15.37	(14.1, 16.3)	15.11	(14.4, 15.7)	3.89**
Mathematics .....	15.17 <sub>def</sub>	(15.3, 15.0)	12.88 <sub>abcd</sub>	(12.8, 13.0)	13.97 <sub>bf</sub>	(13.6, 14.5)	14.48 <sub>c</sub>	(13.2, 15.4)	13.96 <sub>ac</sub>	(13.3, 14.6)	7.68**

NOTE.—Teacher rating scale: 1 = always, 5 = never (no problem). Achievement: Grades: 0–20, 10 = passing grade, 20 = excellent. Means with the same subscript are significantly different from each other ( $p < .05$ ) in a Newman-Keuls multiple-range test for that criterion variable.

<sup>1</sup> Items with highest loadings.

\*  $p < .05$ .

\*\*  $p < .01$ .

controversial group having a much higher achievement than boys.

**Self-rating.**—A significant multivariate sociometric status main effect for the self-rating factors and significant univariate effects were found for four self-rating factors: School Achievement—Verbal Competence, Relations with Opposite Sex Peers, General Self, and Emotional Stability (see Table 6).

**Peer assessment, teacher rating, and self-rating.**—Stepwise discriminant function analyses were performed investigating the 16 variables (three teacher-rating factors, three peer-rating factors, 10 self-rating factors) as possible discriminators of the sociometric groups *separately for boys and girls*. One significant function was found for each gender group (boys: canonical correlation of .40, Wilks's lambda of .73; girls: canonical correlation of .38, Wilks's lambda of .73).

Different groups of the two genders were characterized best by the discriminant function: For *boys*, the *popular* group was most clearly differentiated, with a contribution of factors of each instrument. They were high on prosocial behavior (PF2), low in aggressive behavior (PF1), had a positive math ability self-concept (SF4), did not exhibit nonacceptable behavior (PF3), and showed a good physical abilities self-concept (SF1). This group was also the most visible of all groups (accuracy of 47.4%).

As far as *girls* are concerned, rejected and controversial groups were best described by the discriminant function. *Rejected* girls in the secondary school age were low in classroom adaptation (TF1), exhibited lack of prosocial behavior (PF2), had problematic relations with opposite sex peers (SF5), had a high self-concept concerning physical appearance (SF3), and a positive mathematics self-concept (SF4). *Controversial* girls were characterized by the same variables, but with reversed sign. The accuracy of classification of the rejected girls was 42.3% and of the controversial group 39.7%.

Similarly to the elementary school sample, *consistently maladaptive adolescents* were selected on the basis of the three data sets. A second-order factor analysis was performed on the 16 factors of the three instruments. Three second-order factors were obtained which explained 29.5% of the variance. Each factor contained significant loadings of all three data sets. The first second-order factor emphasized good classroom behavior and achievement self-concept,

paired with some social interaction problems; the second second-order factor described lack of prosocial behavior and of interest in school, paired with being conceited; the third second-order factor consisted of problematic intrapersonal and interpersonal behavior, particularly as far as opposite sex peers were concerned. These factors were stable over various solutions with different numbers of factors extracted.

When selecting consistently maladaptive adolescents out of the whole sample according to the second-order factor scores, 81 adolescents (9.9%) were found who scored below the mean of the first and above the mean of the (negative) second and third factor scores at the same time. Of these, 75.3% were boys (as compared to 48.6% in the group of the remaining 739 adolescents;  $\chi^2 = 20.9, p < .000$ ). On the other hand, maladaptive adolescents were not differently distributed over the five sociometric groups,  $\chi^2 = 3.27, p < .51$ . Students were differently adapted in different grades,  $\chi^2 = 23.7, p < .000$ : while a higher percentage of maladaptive adolescents than in the remaining group was found in grades 1 and 2 of the junior high school, in grade 3 the direction was reversed. The same was true for the corresponding age groups,  $\chi^2 = 40.9, p < .000$ . Achievement was substantially lower for the maladaptive adolescents: general school performance,  $t = 17.01, p < .000$ , mathematics,  $t = 9.92, p < .000$ , language,  $t = 10.8, p < .000$ , and history achievement,  $t = 7.86, p < .000$ . In all subgroups of high-achieving students, hardly any of the maladaptive adolescents was found.

## Discussion

The main goals of the study were as follows: First, to achieve a broad examination of the profiles of peer status groups across multiple domains of psychosocial and academic competence by combining and comparing the evaluation of peers, teachers, and self. Rejected, neglected, and controversial status groups were of special interest. Second, age and gender differences were examined. Third, the fact that the present study was conducted in a different cultural and educational context offered the opportunity for looking at similarities and differences of children's behavior patterns in a different context. Finally, based on all data sets (teacher, peer, and self-rating), a subgroup of consistently maladaptive students most at risk in school was identified.

TABLE 6

SECONDARY SCHOOL: MANOVA AND ANOVA EFFECTS AND MEANS FOR SELF-RATING FACTORS BY SOCIOMETRIC STATUS GROUP  
(Means for Self-Rating Factors by Group and Gender—Males, Females—in Parentheses)

SELF-RATING FACTORS <sup>1</sup>	SOCIOMETRIC STATUS GROUP						F
	Popular	Rejected	Neglected	Controversial	Average		
MANOVA .....	...	...	...	...	...	...	1.54**
SF1, Physical Abilities .....	.08 (.42, -.35)	-.11 (.18, -.47)	.06 (.29, -.32)	-.18 (.06, -.36)	.07 (.22, -.05)		1.83
SF2, School Achievement—Verbal Competence <sup>1</sup> .....	-.13 <sub>a</sub> (-.13, -.12)	.35 <sub>abcd</sub> (.46, .22)	-.03 <sub>b</sub> (.05, -.15)	-.24 <sub>c</sub> (-.09, -.35)	.00 <sub>d</sub> (.15, -.12)		5.30**
SF3, Physical Appearance—Self- Concept .....	-.04 (.19, -.32)	.07 (.00, .15)	.01 (.09, -.11)	-.11 (.22, -.36)	-.00 (.15, -.14)		.44
SF4, Mathematics <sup>1</sup> .....	-.19 (-.47, .17)	.09 (-.01, .21)	-.15 (-.23, -.02)	-.03 (.02, -.06)	.06 (-.12, .22)		2.04
SF5, Relations with Opposite Sex Peers <sup>1</sup> .....	-.13 <sub>c</sub> (-.10, -.17)	.23 <sub>bc</sub> (.17, .30)	.09 <sub>a</sub> (.02, .20)	-.25 <sub>ab</sub> (-.22, -.27)	-.02 (.01, -.04)		3.61**
SF6, General Self <sup>1</sup> .....	-.13 <sub>a</sub> (-.19, -.06)	-.08 (-.12, -.03)	.22 <sub>a</sub> (.15, .34)	.07 (.26, -.07)	-.05 (.02, -.11)		2.38*
SF7, Relationships with Parents .....	-.04 (.07, -.18)	-.15 (.05, -.39)	.03 (.03, .04)	-.02 (.21, -.21)	.04 (.20, -.11)		.80
SF8, Emotional Stability <sup>1</sup> .....	-.05 <sub>b</sub> (-.22, .16)	-.06 <sub>a</sub> (-.22, .13)	-.00 <sub>c</sub> (-.18, .29)	.30 <sub>abcd</sub> (.12, .43)	-.05 <sub>d</sub> (-.12, .02)		2.51*
SF9, Academic Motivation .....	-.09 (-.25, .10)	-.06 (-.20, .11)	-.01 (-.20, .30)	.01 (-.30, .25)	.04 (-.16, .23)		.48
SF10, Relations with Same Sex Peers .....	-.05 (-.06, -.03)	.03 (.12, -.09)	.10 (.01, .23)	-.01 (.01, -.02)	-.03 (-.07, .01)		.42

NOTE.—Means with the same subscript are significantly different from each other ( $p < .05$ ) in a Newman-Keuls multiple-range test for that criterion variable.

<sup>1</sup> Items of these factors (F2, F4, F5, F6, F8) have negative loadings.

\*  $p < .05$ .

\*\*  $p < .01$ .

*Peer status groups.*—General findings, irrespective of age and gender, indicated that *rejected* students were markedly distinguished from children in the other groups and experienced the most significant adjustment problems. These findings are in agreement with relevant studies from American cultural contexts (Asher & Wheeler, 1985; Coie et al., 1982; Parker & Asher, 1987). They extend previous descriptions of the rejected group by showing that rejected children have strong academic difficulties and low achievement scores in various subjects and that the children themselves do acknowledge their academic and peer relationship difficulties.

The profile of *neglected* students has been found not to differ greatly from that of the average students. Neglected children were lacking in prosocial behavior and had some learning difficulties, which also affected their self-concept. Neither peers nor teachers consider neglected children as being shy/withdrawn. Thus, the profile of neglected groups still remains puzzling. Based on the discriminant analyses, neglected students were found to be most easily misclassified. One can assume that this is mainly due to the low visibility of this group, which makes it more difficult for others (teachers, peers) to detect subtle differences in their behavioral patterns.

*Controversial* students were best described by peer rating factors and items like arrogance and snobbishness. Additional peer and self-related problems were found varying according to age and gender. Contrary to peers, teachers evaluated controversial children as not experiencing any particular problems and as having good school performance. They in fact had a profile similar to the average group regarding all aspects of behavior. The finding that teachers did not report any antisocial behavior in controversial children (especially in elementary school, where peers' perceptions were exactly the opposite) may be connected to the relation between achievement and teacher ratings of classroom behavior (Bursuck & Asher, 1986) and the subsequent underestimation of negative behavior in children with good or at least average performance.

*Age and gender* differentiation offered additional information for the status groups. As far as the *rejected* group is concerned, adolescents are perceived by their peers as being shy and sensitive. This is in accordance with our hypothesis that older chil-

dren differentiate more distinctly and qualitatively between their peers. This attribute, connected with the rejected adolescents' negative self-concept regarding opposite sex relationships, seems to reflect the "passive withdrawal" pattern (Rubin & Mills, 1988; Younger & Daniels, 1992), which includes descriptions of shyness, anxiety, oversensitivity, or negative self-perceptions of social competence. Furthermore, rejected adolescents experience learning and achievement problems (as evaluated by teachers and acknowledged by themselves). It seems that, with increasing age, these behavioral characteristics, combined with academic problems, result in peer rejection. Younger and Daniels (1992) have speculated that, across age, passive withdrawal may result in active isolation by the peers and converge in older children's peer perceptions. Our findings point to this direction and underscore the importance of future studies to explore older children's perceptions of distinct characteristics of passive withdrawal and active isolation in peer behavior. The findings also point to the value of refining current peer assessment instruments in order to detect more subtle differences in rejected adolescents' psychosocial competence, since it has been argued that passive-anxious withdrawal suggests a prognosis of later internalizing problems, including anxiety, loneliness, and depression (Rubin & Mills, 1988).

Our findings further revealed distinct gender differences in the profiles of rejected children, indicating that the usual description of this group in the relevant literature rather reflects the profile of rejected young boys. Even though teacher, peer, and self factors were discriminating for both boys and girls, a different contribution of the variables was found: While strong learning and achievement difficulties (reported by teacher and self) and self-reported peer relationship problems were common characteristics of all rejected children, interpersonal behavior problems (aggressive and antisocial patterns) were a distinguishing characteristic of rejected boys (based on teacher and peer ratings) and intrapersonal behavior problems (shy/isolated, unhappy, based on teacher evaluation) and a negative self-concept with reported parental disappointment were distinguishing characteristics of rejected girls. Thus, in addition to the common academic problems, overt misconduct was mainly associated with rejected boys and internalized problems with rejected girls. These findings are in agreement with



our hypothesis and with findings of studies by French (1988, 1990). The above described differences call for the use of differential selection procedures—distinct for boys and girls—in combination with sociometric data when trying to identify high-risk rejected children for intervention purposes. Future research should focus on a more detailed assessment of the internalizing disorders exhibited by peer-rejected girls. It should further focus on the distinction of the different predictors of later maladjustment for boys and girls using a multidimensional approach.

*Neglected* adolescents and children showed, as reported above, some academic and social difficulties, but they were not found to differ significantly from average adolescents, similar to the findings of Parkhurst and Asher (1992). No gender differences in the profiles of neglected children were found, except that in secondary school boys were more likely to be selected to the neglected group than were girls. It seems plausible that these boys are not interested in school and that they are involved in other activities and peer groups outside of the school, which is easier for male than female adolescents in Greek society.

Concerning the *controversial* group, besides the peer rating factors being descriptive of all students, self-concept factors were most discriminating for boys and teacher-rating factors for girls. In elementary school, it was boys in particular who exhibited aggressive behavior, but they were also the leaders in the school. Controversial girls—who were more likely to be selected to the controversial group than were boys—exhibited other kinds of prosocial behavior, for example, they tried to behave properly in class. In secondary school, controversial boys and girls exhibited different behavioral patterns than in elementary school. While boys showed aggressive behavior, controversial girls were perceived as being leaders in school and liked by their peers. It seems that younger children are more gender-stereotypic in their evaluations of their peers. Boys' disruptive and aggressive behavior reflects their gender-role behavior. Consequently, it is an "acceptable" and "expectable" pattern of behavior, and boys were also more likely to be selected to the popular group, possibly reflecting further the general societal stereotypes. On the other hand, the controversial younger girls were perceived as being prosocial and at the same time as arrogant and snobbish. This

combination suggests a visible role of controversial girls in a more clique-like structure of the girls' peer group. These findings are in agreement with relevant findings in other countries, showing that elementary school children have fairly traditional gender-role expectations for the behavior of their peers (Morine-Dershimer, 1985). As the children move into adolescence, their perceptions of their peers become less gender-stereotypic and acquire more gender-role flexibility. The adolescents themselves reported having good relationships with peers of the opposite sex but also as having low emotional stability (depression, nervousness, tension, and anxiety). Our findings document various gender and age differences in the profiles of controversial children; the usual description of this group in the relevant literature again rather reflects the behavioral patterns of younger boys. Future research should aim at exploring other types of behavior that may characterize this group.

*Context variables.*—Many of the present findings in the Greek context are consistent with the general patterns in other countries, although the school system and the societal context are markedly different, as described in the introduction. On the other hand, in agreement with our hypotheses based on the strong emphasis on school *achievement* in Greek society, academic performance has been found to be clearly related to peer sociometric status and psychosocial competence. Learning problems (based on teacher and self-evaluation) and lack of prosocial behavior mainly segregated the rejected group at both age levels. Academic difficulties were also a characteristic of the neglected group. The most "maladaptive" children based on the combination of the perceptions of all raters had further substantially lower achievement in all subjects assessed. On the other hand, the good school performance of the controversial children was reflected in their self-concept. We consider it also to be a structural effect of the Greek school that during the 3 years of junior high school Classroom Adaptation, Interpersonal, and Intrapersonal Behavior were substantially improving, and variance between the status groups decreased. The closer the students get toward the end of compulsory schooling and to the transfer to the high school (*Lykio*), the more they seem to avoid difficulties and to obey to the pressure for good grades and high achievement.

Contrary to elementary school, secondary school teachers did not perceive the students as showing problems in the interpersonal or intrapersonal factors. Several explanations for this finding may be plausible. Since teachers in Greek secondary schools usually teach only one or two subjects in each class and are expected to follow a very structured curriculum, they have little opportunity to observe the psychosocial aspects of students' behavior. The finding could also be attributed to the different quantity and quality of the interactions that children engage in with their peers and teachers (Ledingham & Younger, 1985).

Interaction effects between status and grade showed that some students experience difficulties when entering a new type of school (junior high and high school, respectively). Rejected and neglected children in particular show intrapersonal difficulties in the first grade of junior high school and again of high school, after a substantial decrease of their problems during the junior high school years. Similar findings were obtained concerning Classroom Adaptation. The transition from one school type to another seems to be particularly stressful for children belonging to these status groups.

Furthermore, as expected, strong gender-related differences, based on the perceptions of all raters, were found in the profiles of rejected and controversial groups mainly reflecting the desirable and undesirable masculine and feminine traits and the traditional gender-role expectations in Greek society.

Finally, *teacher's gender* was found to be relevant for teachers' perceptions of students' behavior. For example, female teachers, in contrast to male teachers, perceived rejected children as having intrapersonal problems. It seems possible that male teachers deal mainly with the overt misconduct of students, while female teachers are more attentive and can more easily identify subtle intrapersonal behavior difficulties, as shyness, isolation, and unhappiness. Also, only female teachers described rejected adolescents as having very negative classroom adaptation. Possibly male teachers encounter students' disobedient and disruptive behavior less frequently than their female colleagues, controlling it more easily from the very beginning. It could also be possible that the students, going through the stages of adolescence, exhibit indeed more problems in the classes with female teachers, be-

lieving that female teachers are more tolerant with these patterns of behavior. In any case, our findings indicate the need to use teacher's gender as a variable in future research. Findings which are reported from educational contexts with a high degree of feminization in the teaching profession may turn out to be substantially different when only the classrooms with male teachers are studied.

*Consistently maladaptive students.*—When selecting children who were consistently maladaptive according to all three data sets (teacher, peer, and self-rating) interesting findings were obtained. In both school types, maladaptive students were predominantly male and exhibited strong deficits in all achievement measures. There were also differences between the school types: At the elementary stage, children with special needs (learning problems, children from divorced families) were clearly overrepresented in the maladaptive group; this could also have been true for the secondary stage, but no similar data were available. Maladaptive adolescents were also overrepresented in grades 1 and 2 of secondary school; this was not the case in grade 3 because of high achievement pressure at the end of junior high school.

Of special interest is the finding that maladaptive children were unevenly distributed in the sociometric groups only in elementary school, not in secondary school. Only in elementary school maladaptive children were, as expected, overrepresented in the rejected and underrepresented in the popular group. It seems that the grouping of children according to peer ratings only—as it is usually the case in the relevant literature—results in an incomplete picture, especially concerning secondary school students. Additional information for selecting children with problems in school which are based on teacher and self-ratings seems to contribute to the validity of such assessments. This finding should be taken into account for future research and the development of intervention programs.

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