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## **Adolescents' Experiences, Perceptions and Attitudes Towards Bullying**

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The present study investigated student-level (sex, age, and cultural-background) and school-level (school-type and school climate) influences on adolescents' bullying experiences, perceptions, and attitudes. 1403 high school students responded to the School Safety Survey (SSS). Results from the study indicate that, of the student-level factors, sex was most strongly associated with students' experiences of bullying, but that students' age and cultural-background were most strongly associated with their perceptions of, and attitudes towards, bullying. Of the school-level factors, school-type and school climate interacted to influence students' bullying attitudes and perceptions, but school-type alone appeared to influence students' experiences of bullying. This differential pattern of results indicates that a consideration of student- and school-level factors may be important in future bullying-related research and practice.

### **Purpose**

The extent and impact of bullying amongst students in schools has been a subject of much recent interest in both the research literature, and in public discourse. Moreover, many recent studies (e.g. Glover, Cartwright, & Gleeson, 1998; Maxwell & Carroll-Lind, 1997; Mellor, 1990; Rigby, 1999, 1996; Tattum, 1992) have sought to quantify students' experiences of bullying in schools. Despite this, very few studies have attempted to systematically investigate adolescents' experiences of bullying conjointly with their perceptions of, and attitudes towards, bullying. Fewer still (in fact, we are aware of none) have attempted to explicitly and systematically identify how adolescents' bullying experiences, perceptions, and attitudes may be related to student-level factors such as students' age, sex, and cultural background, or school-level factors such as school type and climate.

The present study attempts to address these deficiencies in the literature. Specifically, the present study attempts to (a) conjointly quantify students' bullying experiences, perceptions, and attitudes (b) demonstrate how these experiences, perceptions and attitudes are related (if at all) to student-level factors such as students' age, sex and cultural background, and (c) demonstrate how students' bullying experiences, perceptions and attitudes are related (if at all) to school-level factors such as the type and climate of the school they attend.

### **Introduction**

During the last decade, bullying of and by children of all ages has become a prominent social, educational, legal and media issue. Not least this is because this issue forms part of wider discussion of exactly what constitutes violence in contemporary society. More specifically, bullying is an issue of concern to educators because it has the potential to seriously affect students' academic and social development (Banks, 1997; Griffiths, 1996; Rigby, 1996). Alternatively, a secure environment, free from fear, is necessary for optimum learning to take place (Cumming, 1998). For these reasons, schools have moral and legal (as well as academic) obligations to ensure they provide safe places of learning for all students. Despite this, bullying at school is one of the top three

concerns for both boys and girls aged between 5 and 14 (Tattum, 1992). Moreover, this bullying can, and does, have destructive relational, educational and health consequences in both the short and long term (Batsche & Knoff, 1994; Tattum & Tattum, 1992; Olweus, 1993; Rigby, 1999).

### Definition

Various researchers have defined bullying differently. However, common elements present in various definitions are:

- (a) deliberate, other-directed, harmful verbal, physical and psychological behaviors (Tattum & Tattum, 1992; Olweus, 1993; Rigby, 2000);
- (b) which are repeated over an extended period of time (Olweus, 1993; Farrington 1993; Smith and Sharp, 1994; Batsche and Knoff, 1994; Rigby, 2000);
- (c) in the context of an imbalance of power between the bully or bullies and the victim (Farrington, 1993; Smith and Sharp, 1994; Rigby, 2000).

Most of the researchers cited above also add that bullying is to be considered separate from the normal conflict that occurs between peers.

## **Students' Experiences of Bullying in Schools**

### Frequency

A surprising degree of consistency is evident in the international literature regarding the extent of bullying in high schools. Typically, between ten and seventeen percent of students report being bullied on a regular basis. For example, Olweus (1993) reports that 17% of Norwegian students were bullied more than once per week. In the same category Alasker and Bruner (1999) identify 12% of Swiss students, Fonzi, Genta, Menesini, Bacchini, Bonino, & Constable (1999) 9.5% of Italian students, Besag (1989) at least 10% of British students, and Maxwell and Coaroll-Lind (1997) 10% of New Zealand students. However, recent studies in Australia (e.g. Rigby, 1996) have identified that up to 25% of children may be in the regularly-bullied category. These later results may be anomalous. Alternatively, it is possible that the frequency of regular bullying is greater in Australia than elsewhere.

### Frequency by Type of Specific Bullying Behaviors

The Gatehouse Project (Glover et al, 1998) has provided data on the frequency of specific bullying behaviors amongst Year 8 students from a number of Australian schools. Specifically, 44% of students reported having been teased, 21% reported having rumors spread about them, 14.5% had experienced social exclusion, and 12.5% had been physically threatened or hurt. These results are congruent with those reported by Rigby (1997) who also found that verbal bullying was the most common form of bullying (23.9% for boys and 22.1% for girls), far more common than actual physical bullying (boys 5.9% and girls 2.9%) or being threatened with harm (boys 5.4% and girls 3.2%) Moreover, being deliberately excluded (boys 5.8% and girls 9.5%) was more likely to occur than either being physically threatened or physically attacked, especially for girls. These findings are also consistent with findings from countries other than Australia (see Mellor, 1990, for one example).

### Location

In his survey of more than 900 Scottish secondary students, Mellor (1990) found (for the whole sample) that the most common locations for bullying were the playground (48%), outside of school (29%), or corridors and toilets (20%). Only 8% reported being bullied in the classroom. When Mellor separated the views of those students who classified themselves as recent victims of school bullying, the corresponding figures were 44%, 18%, 10% and 28%. This suggests that bullied students may be more vulnerable in the classroom than less bullied students. Slee's (1995) study of the play environments of children at school also suggested that the children felt most unsafe in the playground because that was where bullying was most likely to occur.

## **Students' Bullying Perceptions and Attitudes**

### Reasons and Responses

Bullied students have identified a number of perceived reasons for their victimization including ethnicity, resisting pressure to behave in a certain way, physical differences, high achievement, being new to a school, sexual orientation and socio-economic background (Rigby, 1996). Bullied students have also reported that they felt worse about themselves after being bullied, that they have stayed away from school because of bullying, that their health has been adversely affected by being bullied, and even that they have had recurring ideas of suicide as a result of bullying (Batsche & Knoff, 1994; Maxwell & Carroll-Lind, 1997; Rigby 1996, 1997). For example, victims of bullying in one New Zealand study told researchers that the only thing worse than being bullied was the death of someone close (Maxwell & Carroll-Lind, 1997). Conversely, small numbers of students report feeling better about themselves after being bullied (Rigby, 1996).

### Reporting and Helping

Students are often reluctant to report incidents of bullying because they are afraid of being labeled, they think it will make the situation worse, or they perceive that teachers are unable or unwilling to stop the bullying (Healey, 2001; Fuller, 1998). Froschl & Gropper (1999) found that teachers did, in fact, ignore incidences of bullying. Moreover, some teachers are perceived to be bullies themselves (Healey, 2001). Fuller (1998) found that although victims want bullying to stop, they often feel powerless to change the situation, and don't feel teachers can do anything to prevent it.

Rigby (1997) found that girls were more likely to report bullying than boys, that older students were less likely to report than younger students, and that friends were the most likely to be informed about bullying, followed by mothers, fathers, and lastly teachers. About half the students in Rigby (1997) study reported that there was no improvement in the situation after they had reported it, and 9% said it had actually got worse.

## **Covariates of Bullying: Student- and School-Level Factors**

### Student-Level Factors

Age. Direct bullying seems to increase through the years of primary schooling, peaking in the early years of high school, and declining during the later years of high school (Rigby & Slee, 1995). For example, an analysis of 7000 calls received by the Kids Help Line in Australia during 1994 showed that 16% of calls were from 5-9 year olds, 75% were from 10-14 year olds and the remaining 9% were from 15-19 year olds (Rigby, 1996). Moreover, while direct physical bullying tends to decrease with age, the level of verbal bullying appears to remain constant (Banks, 1997).

Sex. Boys appear to engage in bullying behavior more frequently than girls. Froschl and Gropper (1999) found amongst children in K-3 classes, that boys initiated three times as many incidents of bullying as girls. Boys also appear to be the victims of bullies more frequently than girls (Banks, 1997; Rigby & Slee, 1995).

Bullying of girls tends to be more psychological and indirect, and is often perpetrated by groups employing methods such as social exclusion and spreading rumours (Tulloch, 1995). In contrast, bullying of boys is more physical and direct, and is more likely to be carried out by individuals (Owens, 1996; Rigby, 1996). The rate of verbal bullying being very similar for both boys and girls. (Smith & Sharp, 1994; Gumpel & Meadan, 2000). Research with students who admit to having engaged in bullying shows a higher incidence and a later decline for males than it does for females. For example, Rigby & Slee (1993) showed that bullying peaked at 17% at age 15 for males in groups, and 14% at age 13 for individuals. Conversely, girls' bullying peaked at 12% at age 14 in groups, and 9% at age 13 for individuals.

Cultural background. The literature concerning the effect of cultural background on the incidence of bullying in schools is scant. However, Olweus (1993) found that there were some who became the victims of bullying because of a social or physical characteristic, for example, their race, religion, appearance or sexual preference.

#### School-Level Factors

Type of school. Some studies have suggested that the size of a school, and whether or not it is single-sex or co-educational, or government or non-government, makes no significant difference to the amount of bullying in schools. For example, Rigby (1996) found that that the prevalence of bullying was the same in single sex schools as it was in co-educational schools. However, Martin (1993) found that girls were bullied more frequently by boys in co-educational schools, than was the reverse. Rigby (2001) also found that differences in levels of bullying may revolve around school ethos rather than external social distinctions. Thus, the size and setting of the school, and the racial mix of students, does not seem of themselves to make a significant difference in the occurrence of bullying (see also Banks, 1997).

School climate. According to one respected study, less than 20% of Australian school children say they feel safe from bullying at school (Glover et al, 1998). Rigby (1997) also indicates that one third of children who are bullied at least weekly saw their schools as "never or hardly ever" being a safe place to be. For these reason, researchers have identified the need for schools to devise "a comprehensive intervention plan that involves all students, parents and school staff to ensure that all students can learn in a safe and fear-free environment" (Banks, 1997, p4). Despite these findings and recommendations, there is still little data in the literature which directly assessed the effects of school climate on the perceptions of bullying.

#### **Research Questions**

Given the above, the research questions that guided the present research were.

- (a) What are students' experiences of bullying at school, particularly with regard to the frequency and type of bullying they have experienced?
- (b) What are students' perceptions of, and attitudes towards, bullying at school? (e.g. Do students perceive bullying to be a problem in their school? Would they report bullying if they saw it occurring? Would they help a victim of bullying?).
- (c) Do student-level factors (age, sex or cultural background) influence bullying experiences, perceptions and attitudes?
- (d) Do school-level factors (school type and school climates) influence bullying experiences, perceptions, and attitudes?

## Method

### Participants

1403 Students from Years 7 to 12 at two Sydney secondary schools participated in the study. The first school was a co-educational state high school ( $n = 623$ , including 367 males and 256 females). The second school was a non-systemic Catholic girls' school ( $n = 780$ ). Across the total sample, the number and proportion of participants in each Year group from 7 to 12 was 285 (20.3%), 292 (20.8%), 306 (21.8%), 205 (14.6%), 189 (13.5%) and 126 (9.0%) respectively. 183 students (13.0%) reported being born outside Australia, 252 (18.0%) had one parent only born outside Australia and 428 (30.5%) had both parents born outside Australia.

### Measures

The School Safety Survey (SSS) was used to measure students bullying experiences, perceptions and attitudes, as well as a relevant demographic and other data. The SSS consisted of ten questions, requiring a mixture of quantitative and qualitative responses. The quantitative data collected was coded for analysis, and this paper is based on the results of the analyses of that data.

Students' experiences of bullying were measured by a series of questions which asked students to nominate the particular kinds of bullying behavior(s) they had experienced, and the frequency of these bullying behaviours. The behaviors included teasing and name calling, being left out, being threatened, being hit, punched or kicked, being forced to give money or belongings to someone, being touched in unwanted ways, or having personal property damaged or touched on purpose. Students' nominated how often they experienced these types of bullying on a graduated five-point response schedule ranging from 'never' to 'daily'.

Two questions ascertained students' bullying-related perceptions. The first question asked students how frequently they perceived bullying to have occurred on basis of their family, cultural or religious background or, alternatively or additionally, on the basis of their looks. Students' responded to this question on a five-point scale from 'never' to 'daily'. The second question asked students to whether they thought bullying was a problem in their school. Students responded to this question in a six-point scale with the ends of this scale labeled 'not a problem' and 'a major problem'.

Two questions ascertained students' bullying-related attitudes. The first question asked whether students would report incidents of bullying to teachers, the second whether they would "help someone who was being bullied". Both these questions were answered in yes/no format.

Finally, School Climate was measured by a question that asked whether their school "helped students feel good about themselves". Student responded to this question on a four-point scale ranging from "very few feel good" to "all feel good". Thus, the focus of this question was not on whether individual students felt the school made them "feel good about themselves". Rather, the question ascertained the extent to which individual students perceived that the school as a whole made students feel good about themselves.

### Analyses

Descriptive statistics were used to summarize students' experiences of bullying (i.e. how and how often they had been bullied), their perceptions of bullying (i.e. why they thought they were bullied and whether they thought bullying was a problem) and attitudes towards bullying (i.e. whether they would report bullying, and whether they would help someone who was being bullied).

Multivariate Analyses of Variance (MANOVAs) were used to determine whether student-level factors (age, sex, and cultural-background) and school-level factors (school type and climate)

effected students' bullying experiences, perceptions, and attitudes. Specifically, four MANOVAs were conducted i.e.:

- (a) bullying experiences with student-level factors (MANOVA 1),
- (b) bullying perceptions and attitudes with student-level factors (MANOVA 2),
- (c) bullying experiences with school-level factors (MANOVA 3), and
- (d) bullying perceptions and attitudes with school-level factors (MANOVA 4).

The MANOVAs were divided in this way in order to include as many variables as possible in each analyses (thus reducing the probability of finding significant differences by chance), whilst staying within the limit of independent variables (usually about eight independent variables) tolerated by the MANOVA estimation procedures. Finally, one-way ANOVAs (using Tukey's Honestly Significant Different post-hoc comparisons) were used to decompose significant effects identified in the MANOVAs.

## Results

### Experiences of Bullying

The number and frequency of specific bullying behaviors reported by students are recorded in Table 1.

Table 1 indicates that, when considering responses in the 'weekly', 'most days', and 'daily' columns, teasing and name-calling (verbal bullying) were the most frequently reported form of bullying behavior, followed by being left-out.

Table 1  
Frequency of Students' Experience of Specific Bullying Behaviors

|   | <u>Frequency</u>      |                           |                        |                           |                       |
|---|-----------------------|---------------------------|------------------------|---------------------------|-----------------------|
|   | <b>Never</b><br>N (%) | <b>Occasion.</b><br>N (%) | <b>Weekly</b><br>N (%) | <b>Most Days</b><br>N (%) | <b>Daily</b><br>N (%) |
| <u>Behavior</u>                                 |                       |                           |                        |                           |                       |
| Teasing/Name calling                            | 575 (41.0)            | 652 (46.5)                | 58 (4.1)               | 55 (3.9)                  | 63 (4.5)              |
| Left out  | 953 (68.0)            | 383 (27.3)                | 21 (1.5)               | 22 (1.6)                  | 24 (1.7)              |
| Threatened                                      | 1177 (83.9)           | 182 (13)                  | 13 (0.9)               | 14 (1.0)                  | 17 (1.2)              |
| Hit, punched or kicked                          | 1126 (80.3)           | 215 (15.3)                | 14 (1.0)               | 20 (1.4)                  | 28 (2.0)              |
| Forced to give money or belongings to someone   | 1319 (94.0)           | 56 (4.0)                  | 1 (0.1)                | 10 (0.7)                  | 17 (1.2)              |
| Touched in unwanted ways                        | 1313 (93.6)           | 67 (4.8)                  | 5 (0.4)                | 9 (0.6)                   | 9 (0.6)               |
| Personal property damaged or touched on purpose | 1043 (74.4)           | 301 (21.5)                | 17 (1.2)               | 13 (0.9)                  | 29 (2.1)              |

Note: Occasion. = occasionally.

### Perceptions of Bullying

Perceived reasons for bullying. Table 2 records (in aggregate form) students nominated reasons for why they were bullied.

Table 2 indicates that that almost one student in ten received regular (at least weekly) unwanted comments which they attributed to their personal appearance. Fewer students perceived regular bullying to be based on attributes such as family, race, and religion.

Bullying as a problem. When students were asked whether they perceived bullying as a problem at their school 36.9% responded ‘not a problem’, whilst 16.5% responded ‘a major problem’. The remaining 46.6% felt that bullying was a moderately significant problem.

Table 2  
Frequency of Bullying on Perceived Grounds of Appearance or Family Background.

| <u>Reason</u>          | <u>Frequency</u>       |                              |
|------------------------|------------------------|------------------------------|
|                        | <b>At least weekly</b> | <b>Occasionally or never</b> |
| Looks                  | 130 (9.3)              | 1273 (90.7)                  |
| Family, race, religion | 60 (4.3)               | 1342 (95.7)                  |

Attitudes Towards Bullying

80.4% of all students reported that they would be willing to help someone they saw being bullied. A lesser proportion, 66.1%, said they would be prepared to report incidents of bullying to teachers (which means that one third of students wouldn't!).

Differences in Experiences of Bullying: Student-Level Factors

The first MANOVA examined the effect of student-level factors (i.e. sex, age and cultural background) on students’ experiences of bullying. None of the three way (age x sex x culture) or two way (sex x age, sex x culture, or age x culture) interaction effects were significant. In the absence of significant multivariate interaction effects, the main effects for individual factors on students’ experiences of bullying were examined. There was a significant multivariate main effect for sex ( $F = 2.23$ ,  $df = 7$ , sig.  $F = .029$ ) on students’ experiences of bullying. Follow-up one-way ANOVAs were used to determine specifically where significant sex differences existed. The results of these ANOVAs are recorded in Table 3.

Table 3 indicates that females reported being teased, threatened and hit significantly more than the males in the study. Males reported that they were left out significantly more than did the females in the study. The counter-intuitive nature of these findings (e.g. one might expect males to be hit and threatened more than females, and females to be left out more than males) is interesting and will be discussed later. There were no significant sex differences for the other types of bullying examined.

The multivariate main effect for age ( $F = 1.26$ ,  $df = 35$ , sig.  $F = .139$ ) was not significant. However, the associated univariate F-tests (with [5, 1368]df) indicated that students’ experiences of property damage ( $F = 2.52$ ,  $p = .028$ ) did vary significantly according to their year at school, with students in Years 7, 9 and 10 reporting significantly more property damage than students in Year 8. (Maybe Year 8 students were the culprits!)

Table 3  
Main Effects of Sex on Bullying Experiences

| Type of Bullying | Females           |           | Males             |           |
|------------------|-------------------|-----------|-------------------|-----------|
|                  | <u>M</u>          | <u>SD</u> | <u>M</u>          | <u>SD</u> |
| Teased           | 2.00 <sup>a</sup> | 1.11      | 1.77 <sup>b</sup> | .96       |
| Left-out         | 1.29 <sup>a</sup> | .73       | 1.45 <sup>b</sup> | .79       |
| Threat           | 1.29 <sup>a</sup> | .76       | 1.19 <sup>b</sup> | .59       |
| Hit              | 1.57 <sup>a</sup> | .98       | 1.19 <sup>b</sup> | .63       |
| Forced           | 1.10              | .59       | 1.10              | .53       |
| Touched          | 1.10              | .59       | 1.09              | .43       |
| Property         | 1.32              | .82       | 1.34              | .74       |

Note: Reading across the rows of Table 3, different superscripts indicate significantly different means at, at least, the 0.05 level. Mean differences were estimated using Tukey's Honestly Significant Difference post-hoc test of significance.

The overall main effect for cultural background ( $F = 1.28$ ,  $df = 14$ , sig.  $F = .210$ ) was not significant, and univariate F-tests (with [2, 1368]df) indicated that no individual variables displayed a main effect for culture either. Thus, main effect of sex on students' experiences of bullying was the only significant multivariate effect in the first MANOVA.

#### Differences in Bullying Perceptions and Attitudes: Student-Level Factors

The second MANOVA examined the effects of individual factors (sex, age and culture) on students' perceptions of, and attitudes towards, bullying.

Interaction Effects. There was a significant multivariate three-way interaction (sex x age x culture) effect on students' perceptions and attitudes towards bullying ( $F = 1.75$ ,  $df = 45$ , sig.  $F = .002$ ). The associated univariate F-tests (with [9,1368]df) indicated, however, that only students' perceptions that their family background was associated with their experiences of bullying demonstrated a significant three-way interaction ( $F = 5.35$ ,  $p = .000$ ).

Tables 4 and 5 report the results of the follow-up one-way ANOVAs which decomposed the three-way interaction effect.

Tables 4 and 5 indicate that students who had at least one parent born overseas were more likely to attribute bullying to their family background. Moreover, in each case, students in Years 10, 11 and 12, that is, older students perceived that cultural background was associated with bullying more often than students in the younger years. Finally, this age x culture interaction was more pronounced for females than males (hence, the three-way interaction).

The three-way interaction effect takes precedence over the two-way and main effects. However, it may be interesting to note that the two-way interaction effects (sex x age,  $F = 2.80$ ,  $df = 25$ , sig.  $F = .000$ ; and age x cultural background,  $F = 1.47$ ,  $df = 50$ ,  $p = .017$ ) were significant. So too were the main effects for age ( $F = 4.77$ ,  $df = 25$ , sig.  $F = .000$ ) and cultural background ( $F = 5.07$ ,  $df = 10$ , sig.  $F = .000$ ).

Table 4  
Three-Way Interaction Effect on the Perception that Family Cultural Background is Associated with Bullying (Females)

|                       | <u>Cultural Background</u> |           |                   |           |                   |           |
|-----------------------|----------------------------|-----------|-------------------|-----------|-------------------|-----------|
|                       | No NESB Parents            |           | One NESB Parent   |           | Two NESB Parents  |           |
|                       | <u>M</u>                   | <u>SD</u> | <u>M</u>          | <u>SD</u> | <u>M</u>          | <u>SD</u> |
| <u>Year at School</u> |                            |           |                   |           |                   |           |
| <b>Year 7</b>         | 1.20 <sup>a</sup>          | .72       | 1.06 <sup>a</sup> | .24       | 1.31 <sup>a</sup> | 1.14      |
| <b>Year 8</b>         | 1.11 <sup>a</sup>          | .51       | 1.35 <sup>a</sup> | .61       | 2.67 <sup>b</sup> | 1.83      |
| <b>Year 9</b>         | 1.47 <sup>a</sup>          | 1.01      | 1.38 <sup>a</sup> | .50       | 1.90              | .99       |
| <b>Year 10</b>        | 1.53                       | .76       | 1.33 <sup>a</sup> | .52       | 1.29 <sup>a</sup> | .47       |
| <b>Year 11</b>        | 1.39 <sup>a</sup>          | .98       | 1.00 <sup>a</sup> | .00       | 1.14 <sup>a</sup> | .69       |
| <b>Year 12</b>        | 1.00 <sup>a</sup>          | .41       | N/A               | N/A       | 2.00              | .63       |

Note: Reading across the rows and down the columns of Table 4, means with completely different superscripts only i.e. not including means with shared superscripts, indicate significantly different means at, at least, the 0.05 level. Mean differences were estimated using Tukey's Honestly Significant Difference post-hoc test of significance.

Table 5  
Three-Way Interaction Effect on the Perception that Family Cultural Background is Associated with Bullying (Males)

|                       | <u>Cultural Background</u> |           |                   |           |                    |           |
|-----------------------|----------------------------|-----------|-------------------|-----------|--------------------|-----------|
|                       | No NESB Parents            |           | One NESB Parent   |           | Two NESB Parents   |           |
|                       | <u>M</u>                   | <u>SD</u> | <u>M</u>          | <u>SD</u> | <u>M</u>           | <u>SD</u> |
| <u>Year at School</u> |                            |           |                   |           |                    |           |
| <b>Year 7</b>         | 1.04 <sup>b</sup>          | .20       | 1.11 <sup>b</sup> | .38       | 1.18 <sup>b</sup>  | .49       |
| <b>Year 8</b>         | 1.10 <sup>b</sup>          | .57       | 1.06 <sup>b</sup> | .33       | 1.26               | .72       |
| <b>Year 9</b>         | 1.12 <sup>b</sup>          | .36       | 1.22 <sup>c</sup> | .42       | 1.25               | .47       |
| <b>Year 10</b>        | 1.19 <sup>c</sup>          | .70       | 1.23              | .43       | 1.63 <sup>ac</sup> | 1.08      |
| <b>Year 11</b>        | 1.19 <sup>c</sup>          | .60       | 1.48              | .89       | 1.47               | .76       |
| <b>Year 12</b>        | 1.13 <sup>b</sup>          | .34       | 1.67 <sup>a</sup> | 1.20      | 1.38               | .74       |

Note: Reading across the rows and down the columns of Table 5, means with completely different superscripts only i.e. not including means with shared superscripts, indicate significantly different means at, at least, the 0.05 level. Mean differences were estimated using Tukey's Honestly Significant Difference post-hoc test of significance.

Differences in Experiences of Bullying: School-Level Factors

The third MANOVA examined the effect of school factors (i.e. school type and school climate) on students' experiences of bullying. Interaction Effect. There was a significant two-way multivariate interaction effect (school type x school climate) on students' experiences of bullying (F= 1.74, df = 21, p = .018). Univariate F-tests (with [3,1395]df) indicated a two-way interaction effect for students' experiences of being left-out of things on purpose (F= 3.35, p= .019; see Table 6 for decomposition), being forced to give money or belongings to someone without wanting to (F=

2.97,  $p = .031$ ; see Table 7 for decomposition), and being touched in ways that were uncomfortable ( $F = 8.58$ ,  $p = .000$ ; see Table 8 for decomposition).

Table 6  
Interaction Effect (School Type by School Climate) on Being Left-Out

|                      | School Climate     |           |                    |           |                   |           |                   |           |
|----------------------|--------------------|-----------|--------------------|-----------|-------------------|-----------|-------------------|-----------|
|                      | Poor               |           | Moderately Good    |           | Good              |           | Very Good         |           |
| School Type          | <u>M</u>           | <u>SD</u> | <u>M</u>           | <u>SD</u> | <u>M</u>          | <u>SD</u> | <u>M</u>          | <u>SD</u> |
| <b>Single-Sex</b>    | 1.77 <sup>a</sup>  | 1.36      | 1.38 <sup>c</sup>  | .72       | 1.20 <sup>c</sup> | .58       | 1.04 <sup>b</sup> | .20       |
| <b>Co-education.</b> | 1.57 <sup>ac</sup> | .92       | 1.51 <sup>ac</sup> | .79       | 1.38 <sup>c</sup> | .65       | 1.20 <sup>c</sup> | .41       |

Note: Reading across the rows and down the columns of Table 6, means with completely different superscripts only i.e. not including means with shared superscripts, indicate significantly different means at, at least, the 0.05 level. Mean differences were estimated using Tukey's Honestly Significant Difference post-hoc test of significance.

Table 6 indicates that in both the single-sex (girls) and the co-ed school, students were more likely to report being left out if they perceived the school climate to be poor, with the result being more exaggerated in the girls-only school. Putting this another way, the more comfortable within, and supported by, the school students felt, the less likely they were to report being left out, especially in the single-sex (girls) school.

Table 7  
Interaction Effect (School Type by School Climate) on Being Forced to Give Money or Possessions

|                      | School Climate    |           |                 |           |                   |           |                   |           |
|----------------------|-------------------|-----------|-----------------|-----------|-------------------|-----------|-------------------|-----------|
|                      | Poor              |           | Moderately Good |           | Good              |           | Very Good         |           |
| School Type          | <u>M</u>          | <u>SD</u> | <u>M</u>        | <u>SD</u> | <u>M</u>          | <u>SD</u> | <u>M</u>          | <u>SD</u> |
| <b>Single-Sex</b>    | 1.35 <sup>a</sup> | 1.09      | 1.10            | .55       | 1.07 <sup>b</sup> | .48       | 1.00 <sup>b</sup> | .00       |
| <b>Co-education.</b> | 1.10              | .58       | 1.09            | .46       | 1.07 <sup>b</sup> | .44       | 1.10              | .55       |

Note: Reading across the rows and down the columns of Table 7, means with completely different superscripts only i.e. not including means with shared superscripts, indicate significantly different means at, at least, the 0.05 level. Mean differences were estimated using Tukey's Honestly Significant Difference post-hoc test of significance.

Table 7 indicates that students in the single-sex (girls) school who perceived that the school climate was poor, were more likely to report being forced to give money or other possessions to other students more frequently than students who had a more positive view of the school climate.

Table 8  
Interaction Effect (School Type by School Climate) on Being Touched

|                      | School Climate    |           |                   |           |                   |           |                   |           |
|----------------------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|
|                      | Poor              |           | Moderately Good   |           | Good              |           | Very Good         |           |
| School Type          | <u>M</u>          | <u>SD</u> | <u>M</u>          | <u>SD</u> | <u>M</u>          | <u>SD</u> | <u>M</u>          | <u>SD</u> |
| <b>Single-Sex</b>    | 1.44 <sup>a</sup> | 1.14      | 1.13 <sup>b</sup> | .53       | 1.00 <sup>b</sup> | .25       | 1.00 <sup>b</sup> | .00       |
| <b>Co-education.</b> | 1.11 <sup>b</sup> | .59       | 1.07 <sup>b</sup> | .37       | 1.06 <sup>b</sup> | .24       | 1.00 <sup>b</sup> | .00       |

Note: Reading across the rows and down the columns of Table 8, means with completely different superscripts only i.e. not including means with shared superscripts, indicate significantly different means at, at least, the 0.05 level. Mean differences were estimated using Tukey's Honestly Significant Difference post-hoc test of significance.

Table 8 indicates that, in both types of schools, students were more likely to report being touched by other students in ways that they didn't want to be touched if they perceived the school climate to be poor, with the result being significantly more pronounced in the single-sex (girls) school.

Overall, it would appear that students who found their school climate poor were more likely to report being bullied, especially in the single-sex (girls) school. Disaffection, particularly in the single-sex (girls) school, made a difference in the level of bullying.

Main Effects. Although the interaction effect above takes precedence, it may be interesting to note that there was a significant multivariate main effect for school type ( $F = 5.82, df = 7, p = .000$ ) on students' experiences of bullying. There was also a significant multivariate main effect of school climate on students' experiences of bullying ( $F = 5.03, df = 21, p = .000$ ).

Differences in Perceptions of Bullying: School-Level Factors

The fourth MANOVA examined the effect of school factors (school type and school climate) on students' perceptions of, and attitudes towards, bullying.

There was no significant multivariate interaction effect (school type x school climate) on students' perceptions of bullying ( $F = 1.34, df = 15, p = .166$ ). The associated univariate F-tests (with [3,1395]df) indicated that no individual variables displayed a significant school type x school climate interaction effect. In the absence of a significant interaction effect, the main effects may be examined more closely. There was a significant multivariate main effect for school type on perceptions of, and attitudes towards, bullying ( $F = 3.87, df = 5, p = .002$ ). Univariate F-tests (with [1,1395]df) indicated main effects of school type on the perception of family background as a correlate of bullying ( $F = 6.07, p = .014$ ), bullying as a problem ( $F = 8.56, p = .003$ ), and students' being willing to help victims of bullying ( $F = 4.25, p = .039$ ). In all cases, students' at the girls school reported higher means.

There was also a significant multivariate main effect of school climate on students' perceptions of and attitudes towards bullying ( $F = 8.20$ ,  $df = 15$ ,  $p = .000$ ). The associated univariate F tests (with [3,1395]df) indicated a significant main effect of school climate on all individual variables in the analysis, that is, that family background ( $F = 10.83$ ,  $p = .000$ ), and physical appearance ( $F = 9.82$ ,  $p = .000$ ) were associated with bullying; and that students perceived bullying to be a problem ( $F = 13.39$ ,  $p = .000$ ), that they would report bullying ( $F = 14.13$ ,  $p = .000$ ), and that they would help others to deal with bullying ( $F = 5.26$ ,  $p = .001$ ). Follow up one-way ANOVAs were used to determine specifically where differences on these variables existed. Results of these one-way ANOVAs are reported in Table 9 below.

Table 9  
Main Effects of School Climate on Perceptions and Attitudes Towards Bullying  
Perceptions of Causes of Bullying

|                  | Family             |           | Looks    |           | Problem  |           | Report   |           | Help     |           |
|------------------|--------------------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|
|                  | <u>M</u>           | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> |
| <u>Climate</u>   |                    |           |          |           |          |           |          |           |          |           |
| <b>Poor</b>      | 1.45 <sup>b</sup>  | 0.99      | 1.87     | 1.23      | 3.45     | 1.77      | 1.47     | 0.50      | 1.29     | 0.45      |
| <b>Moderate</b>  | 1.32 <sup>bc</sup> | 0.73      | 1.71     | 0.91      | 3.24     | 1.38      | 1.39     | 0.49      | 1.19     | 0.39      |
| <b>Good</b>      | 1.18 <sup>ac</sup> | 0.56      | 1.54     | 0.88      | 2.86     | 1.35      | 1.27     | 0.45      | 1.18     | 0.39      |
| <b>Very Good</b> | 1.07 <sup>a</sup>  | 0.26      | 1.28     | 0.46      | 2.50     | 1.50      | 1.14     | 0.35      | 1.09     | 0.29      |

Note: Reading down the columns of Table 9, means with completely different superscripts only i.e. not including means with shared superscripts, indicate significantly different means at, at least, the 0.05 level. Mean differences were estimated using Tukey's Honestly Significant Difference post-hoc test of significance.

Family = bullying attributed to family background; Looks = bullying attribute to looks; Problem = bullying perceived as problem at school; Report = student would report bullying if they saw it; Help = students would seek help if they were bullied.

Table 9 indicates that the pattern for the first four variables was identical. In each case the one-way ANOVA showed that the more students felt the school climate contributed to their sense of well-being, the less likely they were to report being bullied because of family background or appearance, the less of a problem they perceived bullying to be at school and the less likely they would be to report incidents of bullying to teachers. Interestingly, those with the poorest perception of the school climate were also those who indicated they would be the most willing to help someone else who was being bullied.

## Discussion

### Summary of Findings

The findings above can be summarized as follows. First, sex (but not age or cultural background) was associated with students' experiences of bullying i.e. females and males reported different experiences of bullying. In contrast, age and culture (but not sex per se) were associated with students' perceptions of, and attitudes towards, bullying. These findings suggest that males and females have similar bullying perceptions and attitudes despite having different experiences of bullying. Conversely, students of different ages and cultural backgrounds have differing bullying perceptions and attitudes despite having similar experiences of bullying. These suggestions may also imply that bullying perceptions and attitudes may be relatively independent of students' actual experiences of bullying.

Second, school type and climate interacted to effect students' bullying perceptions and attitudes. However, these variables did not interact to effect students' bullying experiences. Thus, school type (notwithstanding variations in perceptions of school climate) influenced experiences of bullying, whereas both school climate and school type influenced bullying perceptions and attitudes.

Taken together the results summarized above appear to indicate that sex and school type are the most salient influences on experiences of bullying, whereas age, cultural background, school type and school climate are the most salient influences on bullying perceptions and attitudes.

With the above summary in mind, we now focus our discussion on some of the more important findings of the research.

### Experiences of Bullying

The finding (from the first MANOVA) that females experienced being threatened and hit significantly more than boys, and that boys experienced being left-out (ie. psychological bullying) more than girls is interesting. This is because it runs counter to previous studies (eg. Glover, et al, 1998; Mellor, 1990; Rigby, 1997) and, perhaps, 'accepted wisdom'. These studies and wisdom suggest that boys engage in threatening behavior and physical bullying more than girls, and that the reverse is true of psychological bullying. It may be that the bullying experiences of participants in the present study are peculiar to this sample. However, even if this is so, these findings suggest that sex based differences in types of bullying may be, at least in part, context dependent. For this reason, it is important not to automatically assume that boys and girls will engage in particular types of bullying behavior. It may be that in some cases, such as the present, that typical sex differences in bullying are moderated, or even reversed.

Another possible explanation for these reversals of typical expectations might be that boys generally see the more physical forms of behavior as normal modes of interaction, and are therefore less likely to consider it to be bullying. Similarly, girls may use and view ostracism as a means of resolving normal peer conflict and not as a means of bullying. Hence, it may be that unfamiliarity (or non-'normal') behavior is a characteristic of what students perceive and report as bullying behavior. This would mean that commonly experienced behaviors (which researchers and teachers might perceive as bullying!) may not be reported as bullying. This explanation may also account for the surprise that some nominated bullies express when confronted with their nomination as a 'bully'. Thus, bullying may be as much in the eyes of the givers and receivers as it is in the eyes of the onlooker.

The above noted, our research is still consistent with other research that suggests that, across sexes, verbal bullying (teasing, name-calling etc) is the most common form of bullying reported. Also consistent with previous research (e.g. Olweus, 1993) is that cultural background appears to have relatively little impact on students' experiences of bullying. This finding is still worthy of note, however, as the constrained effect of cultural background on students' experiences of bullying was not replicated in their perceptions of bullying. More will be said about this below.

### Perceptions of Bullying

As indicated immediately above, there was an effect of culture on students' perceptions of bullying. More specifically, the second MANOVA indicates that older students with at least one parent born overseas were more likely to perceive that bullying was based on their family background. Moreover, this interaction effect appears to be more pronounced for females than males (hence the three-way interaction). This somewhat complex set of interactions may be explained by suggesting that although (from the first MANOVA) students' experiences of bullying do not significantly vary according to age culture, yet older students from non-Australian

backgrounds, and of these older female students in particular, may be particularly sensitive to bullying which they attribute to their family-background. In other words, there may not be significant age and cultural difference between experiences of bullying, but there does appear to be interacting age and cultural differences in sensitivities towards bullying.

If true, this is interesting because it highlights that perceptions matter, whatever students experiences of bullying may be. This is also consistent with other research from the resiliency literature (e.g. Criss, Pettit, Bates, Dodge, & Lapp, 2002; Cunningham, Brandon, & Frydenberg, 1999; Davis & Paster, 2000) which suggests that students' perceptions of, and responses to, adversity may be as important as their actual experiences of that adversity.

The above discussion is also supported by the descriptive findings of the research. For example, although the majority of students reported never or rarely being subjected to most of the specific types of bullying behaviors investigated here (see Table 1), only 36.9% said that bullying wasn't a significant problem at their school. This may indicate that students are generally sensitive to the issues of bullying. This would accord with the recent focus on bullying at school, system, and wider community levels.

It may also be that students implicitly included a broader range of behaviours when they considered whether or not bullying was a problem in their school (that is, when they considered the issue in relation to other people) as opposed to when they reported on their own experiences of bullying. Whatever the case it would be interesting to further examine why experiences and perceptions of bullying appeared to divergent in the present study.

### School Climate and Type

Experiences. The results indicate that school-climate and type interact to influence students' experiences of bullying across a range of bullying types. The pattern of these interactions is somewhat complex. However, the important point to note is that students' bullying experiences may vary considerably according to both school type and climate. For this reason, it is important not to assume that students' experiences will of necessity be similar across schools. For this reason also, interventions to address bullying will probably need to be targeted towards the needs of students' specific schools. In other words, because students' experiences of bullying may vary across schools, so should the interventions designed to address these experiences.

Perceptions and attitudes. The finding that students' experiences of bullying are (at least here) influenced by school type is mirrored by the fact that bullying perceptions are also effected by school type. Specifically, students at the girls school reported more strongly that bullying was associated with family background, that bullying was a problem, and that they would help a bullied student. These findings suggest that students at the girls school may be more sensitive to the correlates of bullying (e.g. family background) and the problematic nature of bullying. For these reasons, they may be more willing to help someone being bullied. The reverse may be the case at the so-educational school. Whatever the case is, however, these findings suggest again that bullying interventions may need to be adjusted according to the type of school in which these interventions take place.

As might be expected on the basis of at least some previous work (e.g. Banks, 1997; Rigby, 2001) school climate substantially influenced students' bullying perceptions and attitudes. Those who believed that their school didn't, in general, support and nurture students at the school were most likely to perceive being bullied on the basis of their family background and their appearance. Also of interest, is that, in a climate of lower psycho-emotional support students were more likely to report incidents of bullying in schools to teachers. Thus may suggest that in less-supportive school climates, students' feel the need to seek teachers' assistance with bullying. However, students reporting a less supportive school climate also reported a significantly greater desire to help

someone else who was being bullied. Thus, in (what are perceived to be) less supportive environments, students may feel the need to do something about bullying, whether with the assistance of a teacher, or by themselves. Conversely, students in (what are perceived to be) more supportive schools may feel less need to report bullying, or to help others (whom they may perceive are really “OK” anyway).

These are all speculations, of course. Hence, further research needs to be carried out to determine more closely how school climate may effect students’ bullying perceptions and attitudes, as well a their experiences of it.

### **Summary and Conclusion**

The present study has demonstrated that both student-level and school-level factors may influence students’ bullying experiences, perceptions, and attitudes. This is important because few studies to date have attempted to investigate these two levels of effects on either bullying experiences alone, or bullying experiences in combination with bullying perceptions and attitudes. The pattern of results reported in this study is somewhat complex. However, the breadth of significant results associated student- and school level effects in the present study ought to alert researchers and practitioners to the potentially widespread influence of these factors. In this way, both future research and future practitioner interventions may (we think, fruitfully) take these factors into account.

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