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### Abstract

Given their ubiquitous presence as witnesses to school yard bullying, the role of the ‘bystander’ has been studied extensively. The prevalence and behaviour of bystanders to *cyberbullying*, however, is less understood. In an anonymous, school based questionnaire, 716 secondary school students from South-East Queensland reported whether they had witnessed traditional and/or cyberbullying, and how they responded to each type. Overlap in bystander roles between online and offline environments were examined, as was their relationship to age and gender. Students who witnessed traditional bullying were more likely to have witnessed cyberbullying. Bystanders’ behaviour was sometimes similar in both contexts of traditional and cyberbullying, mainly if they were outsiders but half of the 256 students who reported witnessing both traditional and cyberbullying, acted in different roles across the two environments. The implications of the findings are discussed in the context of previous research on cyberbullying and traditional-bystanders. Future research should further explore the role of bystanders online, including examining whether known predictors of traditional-bystander behaviour similarly predict cyber-bystander behaviour.

*Keywords:* Participant roles, cyberbullying, traditional bullying, bystanders

Despite ongoing efforts of governments, schools and researchers, bullying among school students seems to be as significant a problem for school students today (Hemphill et al., 2011) as it was 20 years ago (Rigby & Slee, 1991). The positive association between victimisation and poor psychosocial outcomes, including higher rates of suicidal ideation (Baldry & Winkel, 2003; Rigby & Slee, 1999; van der Wal et al., 2003) and suicide attempts (Kaltiala-Heino, Rimpelä, Marttunen, Rimpelä, & Rantanen, 1999; Klomek et al., 2009; Patchin & Hinduja, 2010), has been a major catalyst for the significant body of research that has sought to understand and alleviate the problem. The conceptualisation of bullying evolved from a dyadic interaction between a ‘bully’ and a ‘victim’ to incorporate a third party – the bystander – and the potential of bystanders to affect the bullying dynamic where traditional interventions concentrating on the student who bullied and/or the student who was victimised could not (Ttofi & Farrington, 2011). In short, there has been increasing emphasis on encouraging bystanders to reduce bullying behaviours. Concurrently, an additional way of bullying has evolved; in the new era of technological immersion, cyberbullying is now the topic de jour.

### **The Bullying Triad**

Though traditionally concerned with the behaviour of the ‘bully’ and the ‘victim’ (Olweus, 1988; Rigby & Slee, 1991), the mid 1990s saw studies published that accounted for the social context in which most school bullying takes place, that is, in the presence of others (DeRosier et al., 1994; Salmivalli et al., 2011; Vannini et al., 2011; for a review, see Salmivalli, 2010). Naturalistic observations of school-yard bullying and self-report questionnaires revealed the triadic nature of bullying behaviour: 85% of observed bullying incidents in a Canadian school playground occurred in the presence of students who were not the ‘bully’ nor the ‘victim’, but ‘bystanders’ to the activity (Craig & Pepler, 1998). Around the world, researchers found that most school students either report witnessing

bullying (Johnson & Rigby, 2006; Nishina & Juvonen, 2005; Rivers et al., 2009; Rolider & Ochayon, 2005; Trach et al., 2010), or are observed witnessing bullying (Craig et al., 2000; Hawkins, et al., 2001; Tapper & Boulton, 2005) at their school. The role of the 'bystander' is now established as a distinct role in the bullying dynamic (Wiens & Dempsey, 2009). Regardless of how they behave, bystanders are the social consensus: that is, how they choose to act will sustain the social norm (Craig et al., 2000). Bystanders provide direct feedback of the acceptability of behaviour by reacting in a certain way; a bystander can choose to actively or passively reinforce the aggressive behaviour, or s/he can choose to support the victim (O'Connell et al., 1999).

### **Participant Roles**

In order to classify the different ways a bystander can react to bullying, Salmivalli and her colleagues in Finland created the Participant Role Scale (PRS) (Salmivalli et al., 1996). Students nominated classmates who matched 49 behavioural descriptors of bullying behaviour and, from this, six subscales or 'participant roles' were created. Students were allocated to a participant role based on their score on a subscale. As well as a 'Victim' and a 'Bully', four other roles were created that described how a bystander might react to bullying: *Outsiders* (those who reinforce the bullying by taking no action, despite being aware of the situation), *Reinforcers* (reinforcing the bullying directly by providing positive feedback such as shouting encouragement or laughing), *Assistants* (those who although not starting the bullying join in) and *Defenders* (actively defending the victim by intervening on behalf of the victim, or supporting the victim by inviting them to join a group).

### **The Traditional-Bystander**

Despite studies that show a majority of students feel negatively towards behaviour that reinforces bullying and positively towards students who act as Defenders (Gini, Pozzoli et al., 2008; Menesini et al., 1997; Whitney & Smith, 1993), most students choose

to passively (as an Outsider) or actively (as an Assistant or Reinforcer) reinforce bullying (Salmivalli et al., 1996; Salmivalli et al., 2011; Sutton & Smith, 1999; Voeten & Salmivalli, 2004). As the majority, bystanders have enormous capacity to shape social norms and affect change. Evidence suggests that peer intervention is relatively successful compared to teacher or other adult initiated intervention (Hawkins et al., 2001); however, the influence of bystanders' behaviour extends beyond successful intervention. 'Defender' behaviour appears to moderate the psychosocial risks associated with victimisation (Karna et al., 2010), increases feelings of safety in the school environment, and reduces the level of blame attributed to victims of bullying (Gini, Pozzoli et al., 2008). The potential of bystanders to affect the bullying dynamic has encouraged researchers to understand the determinants of the participant roles. Feelings of personal responsibility, peer pressure, empathy, and social self-efficacy are group and individual factors that influence a student's decision to actively oppose, passively reinforce, or actively support a bully's behaviour (Gini, Albiero et al., 2008; Pöyhönen et al., 2010). There is much potential to utilise the bystander in bullying intervention; however, to date, the role of the bystander has been examined only in the 'traditional' bullying context. Over the past decade, bullying has moved beyond the confines of the school playground, to the less defined parameters of cyberspace.

### **Cyberbullying**

In line with the traditional definition of bullying (Olweus, 1988) cyberbullying is an aggressive, intentional act carried out by a group, or individual, repeatedly and over time against a victim who cannot easily defend him or herself (Smith et al., 2008).

Cyberbullying occurs through e-mail, mobile phone calls/messages/video texts, instant messaging, and defamatory personal Web sites (Willard, 2007). Prevalence statistics for cyberbullying vary significantly, perhaps due to the range of definitions used by

researchers to study the phenomenon of online behaviour (Campbell, 2007). A national study recently found that 7-10% of Australian students in Years 4 to 9 reported being cyberbullied (Cross et al., 2009), while studies of school students from Great Britain (Katz & Dillon, 2010; P. K. Smith, Mahdavi, Carvalho, & Tippett, 2006), Canada (Li, 2006) and the United States (Hinduja & Patchin, 2008) report prevalence rates of around 20%. Despite fluctuations in prevalence, research suggests that bullies and victims tend to maintain their roles across contexts: students who are victims or perpetrators of offline bullying are likely to be victims or bullies online as well (Hinduja & Patchin, 2008; Raskauskas & Stoltz, 2007; Twyman et al., 2010; Vandebosch & Van Cleemput, 2009; Ybarra et al., 2007; Ybarra & Mitchell, 2004). Thus, it appears no longer accurate to conceptualise the Internet and other technologies as an adjunct to young people's 'real life' relationships, but rather as a means by which students connect seamlessly with their 'offline' peers (Mishna et al., 2009; Valkenburg & Peter, 2007). If cyber-victims and cyber-bullies maintain their offline roles, it seems reasonable that cyber-bystanders would also maintain roles regardless of context. However, a counter argument could be made that the cyber environment is such a different form of communication that the "disinhibition" effect proposed by Suler (2004) could change the dynamic, leading to changes in participant roles of bystanders in the new environment.

### **The Cyber-Bystander**

Several studies have researched the prevalence of online bystanders to cyberbullying and their willingness to report the behaviour to adults. Online-bystanders are even less likely than offline-bystanders to report bullying to adults (P. K. Smith et al., 2008). Only 9.3% of Canadian high school students who witnessed cyberbullying reported the bullying to someone who could help; 70.2% of the bystanders reported that they watched the bullying but did not participate, and 25.8% reported that they left the online

environment altogether. The reluctance of cyber victims to report online bullying to someone other than their peers is a consistent finding across American (Agatston et al., 2007; Juvonen & Gross, 2008), Canadian (Li, 2006, 2010; Mishna et al., 2009), British (P. K. Smith et al., 2008) and, to a lesser extent, Australian (Price & Dalgleish, 2010) studies. It is hypothesised that the threat of losing computer and mobile phone privileges encourages reluctance to engage 'outside' assistance (Agatston et al., 2007; Huang & Chou, 2010; Juvonen & Gross, 2008; Li, 2010; Mishna et al., 2009; P. K. Smith et al., 2008). Students' peers are in a unique position to witness behaviour that adults are excluded from, and it is therefore imperative that the determinants of their behaviour to intervene: for example, get help, provide support to the person being victimised, or telling the aggressor to stop, walk away, or actively assist a cyberbully are understood. Determinants of traditional-bystander behaviour are well studied; if it was shown that offline bystanders retained their 'role' online (as victims and bullies often do), the strategies that address traditional-bullying behaviours may be utilised to reduce cyberbullying behaviours (Pearce et al., 2011b). Conversely new approaches might be needed in the cyber environment.

### **The Present Study**

The aims of the present study were to compare the prevalence rates of bystanders to traditional bullying and cyberbullying, as well as to examine the relationship between age, gender and the type of bullying witnessed (traditional-type only, cyber-type only, both, or neither). It was hypothesised that older students would witness more cyberbullying than younger students but that younger students would witness more traditional bullying than older students. It was further hypothesised that males would witness more traditional bullying and females more cyberbullying. Additionally, the study examined the relationship between traditional-bystander roles and cyber-bystander roles and looked at whether age and gender predicted both traditional- and cyber-bystander roles.

## **Method**

### **Participants**

Participants were recruited from two independent Catholic secondary schools in a midsize city in South East Queensland. One school was single sex (female) (n = 626) and the other was co-educational (n = 304). All students from each school (Years 8 to 12) (n= 930) were eligible to take part in the study. Parents were informed of the survey through Intranet and newsletter announcements and were asked to contact the school if they did not wish their child to take part in the study. No parent or guardian from either school requested that their child not participate in the study. All students present on a specified testing date were given the survey but were told that they could leave the survey incomplete if they did not wish to participate; 214 (23%) did not complete the questionnaire. There was a small difference between the schools' completion rates (83.9% and 73.6%). There were no statistically significant differences across the schools in terms of their Participant Role Scale scores for bullying and cyberbullying, so data from the two schools were collapsed. The final sample consisted of 716 students (540 girls and 176 boys). The frequencies of students within each age group across both schools were as follows: 44 (6.15%) were 12-years-old; 170 (23.74%) were 13-years-old; 178 (24.86%) were 14-years-old; 153 (21.37%) were 15-years-old; 65 (9.09%) were 16-years-old; 78 (10.89%) were 17-years-old; 28 (3.91%) were 18-years-old.

### **Measures**

The questionnaire contained three sections of questions that pertained to students' experiences of witnessing traditional bullying (Section 1), students' experiences of witnessing cyberbullying (Section 2), and students' feelings of empathy and social-self efficacy in general (Section 3). For the purpose of this paper only responses from Section 1 and Section 2 were considered for analyses and discussed below.



***Students' experiences of witnessing each type of bullying.*** Definitions of traditional and cyberbullying were given at the beginning of Section 1 and 2. The definitions encapsulated the three main elements of Olweus' (1966) bullying definition: The intention to harm the victim, the repetitive nature of bullying, and the imbalance of power between the victim and the perpetrator(s). The definition of cyberbullying that preceded Section 2 included a statement about cyberbullying (*Cyberbullying is when one person or a group of people who have some advantage over a victim repeatedly and intentionally try to hurt or embarrass that victim using their computer or mobile phone*) followed by a list of the 7 media through which cyberbullying can take place: text messaging; pictures/photos or video clips; phone calls; email; chat rooms; instant messaging; and websites (P. K. Smith et al., 2008). Following the definitions, students were asked if they had witnessed traditional or cyber bullying in the previous 12 months. Students who had not witnessed traditional bullying proceeded to Section 2; students who had not witnessed cyberbullying proceeded to Section 3. Participants were categorised as witnesses to both types of bullying, witnesses to cyberbullying only, witnesses to traditional bullying only, or witnesses to neither.

***Participant Role Scales.*** For each type of bullying witnessed, students were asked to think of the most recent incident, before choosing one of eight behavioural descriptors that best described their reaction to the bullying. Following Oh and Hazler (2009) the behavioural descriptors included four different roles of bystanders: Defender (e.g. 'I tried to help the person being bullied, for example got an adult or told the bully to stop'), Outsiders (e.g. 'Nothing, I pretended not to notice what was happening'), Reinforcer (e.g. 'I giggled, laughed, shouted or something similar'), and Assistant (e.g. 'Someone else started it, but I joined in'). The behavioural descriptors were obtained from the Participant Role Scale, an instrument that has measured bystander behavioural reactions to bullying in

its original (Gini et al., 2007; Salmivalli et al., 1996; 2011) and modified forms (Gini & Pozzoli, 2010; Goossens et al., 2006; Sutton & Smith, 1999). Descriptors were modified in Section II to describe reactions to cyberbullying, for example 'I passed on the message/video/link' (Assistant). Participants were assigned a role as a Defender, Outsider, Reinforcer, or Assistant. Oh and Hazler (2009) report Cronbach's Alpha for the PRS for each subscale in its original (Salmivalli, Kaukiainen, & Voeten, 2005) and modified forms (Camodeca & Goossens, 2005) as 0.79 to 0.93 (Defender), 0.88 to 0.93 (Outsider), 0.90 to 0.91 (Reinforcer), and 0.81 to 0.95 (Assistant).

### **Procedure**

Class teachers and year level coordinators were engaged to supervise the data collection process. The researcher met with staff to answer questions and clarify procedures. The survey took place during Pastoral Care, Home Room, or Information and Communication Technology classes either online or in a pencil and paper format, with the same questions in the same order for each. Students were assured that their answers were anonymous, that participation was voluntary, and they could stop completing the survey at any time. Participants were given an information sheet with contact numbers and websites for anti-bullying services and general help-lines. Procedures were approved by the institutional ethics committee. The assistant principal of each school received an individualised report, which detailed witness prevalence rates and patterns of bystander behaviour to assist their school in the development of anti-bullying interventions.

### **Data Analyses**

To test whether a relationship exists between type of bullying witnessed, bystander behaviour, age and gender, chi-square analyses were conducted.

### **Results**

The number of participants who were bystanders to each type of bullying is reported in Table 1 [Insert Table 1 here]. The majority of students (68.3%) reported they had witnessed either traditional bullying, cyberbullying, or both in the past 12 months.

A chi-square analyses comparing the overlap of traditional bullying bystanders with cyberbullying bystanders was significant. An examination of the standardised cell residuals presented in Table 2 [Insert Table 2 here] shows that students who witnessed cyberbullying were significantly more likely to witness traditional bullying, and conversely students who had not witnessed cyberbullying were significantly less likely to have witnessed traditional bullying.

#### **Gender and Type of Bystander**

A chi-square analysis examined the relationship between gender and type of bullying witnessed (traditional-only, cyber-only, both types, neither type). A significant chi-square statistic indicated that the type of bullying witnessed differed by gender  $\chi^2(2, N = 489) = 16.158, p < .001, \phi_C = .18$ . Analysis of the standardised residuals revealed that there were a significantly higher proportion of male witnesses to traditional-type bullying (45.7%) than would be expected by chance, and significantly fewer male witnesses to cyberbullying (6.2%) than would otherwise be expected. Conversely, a higher proportion of female participants reported witnessing cyberbullying than traditional bullying only; however, analyses of standardised residuals revealed that the difference was not significant.

#### **Age and Type of Bystander**

A chi-square analysis examined whether there were differences in the ages of students who reported witnessing each type of bullying. Table 3 [Insert Table 3 here] is a cross tabulation table that shows the number of students in each age group who witnessed each type of bullying (12- and 13-year olds, and 17- and 18-year olds were combined because of small frequencies). A chi-square test showed a significant association between

age and type of bullying,  $\chi^2(8, N = 489) = 42.168, p = .000, \phi_C = .243$ . Analysis of standardised residuals revealed there was a higher proportion of 15-year old witnesses of both traditional and cyberbullying than would be expected by chance, and a significantly lower proportion of 15-year-olds who did not witness either. There were significantly more 17-18-year olds who had not witnessed either type of bullying than would be expected by chance.

### **Bystander Roles**

Figure 1 [Insert Figure 1 here] shows a breakdown of bystander roles for each type of bullying witnessed. It shows a similar pattern of behaviour across contexts and across bullying type with the “outsider” role being the most frequent across all combinations of bullying types witnessed.

To examine the degree to which bystander roles are consistent across both traditional and cyber-bullying contexts a cross-tabulation was conducted. Due to a large number of small cells (five cells with less than five participants in each) a chi-square analysis could not be conducted. However, it was also determined that collapsing bystander role categories in order to facilitate the chi-square analysis would lead to misleading results. Therefore an overall chi-square result was not calculated for this contingency table, however standardised cell residuals provide an indication of significant differences between observed and expected frequencies at the cell level. Second, a chi-square analysis compared the behaviour of those who were witnesses of only traditional bullying with the behaviour of those who were witnesses of only cyber bullying.

#### ***Bystanders to Both. Traditional and Cyberbullying.***

Cross-tabulations of traditional and cyber-bystander roles among participants who had witnessed both forms of bullying are presented in Tables 4 and 5. Table 4 provides an indication of the proportion of participants whose bystander behaviour remained consistent

across bullying contexts versus those whose bystander behaviour differed across bullying contexts. Those who took on an outsider role when witnessing traditional bullying were the most likely to maintain consistency in this approach with 64% of this group indicating they also played an outsider role when witnessing cyber-bullying. This compares to 45% consistency among traditional defenders, 22% consistency among traditional assistants and only 4.5% consistency among traditional reinforcers. Those who acted in an assistant role in traditional bullying contexts were more likely to take on an outsider or defender role (33.3% each) than maintain the assistant role in cyber contexts. Reinforcers in traditional contexts were more likely to take on the role of outsider (45.5%) in cyber contexts than maintain the reinforcer role. Defenders in traditional settings were almost equally likely to maintain that role (44%) or take on an outsider role (40.2%). Overall, 51% of participants were consistent in their roles across traditional and cyber bullying contexts, however this high proportion largely stems from the outsider group. Table 5 presents the observed and expected frequencies for each cell of the role type contingency table with standardised cell residuals provided as indication of significant differences. As can be seen, only two cells obtained residuals higher than 1.96. The first indicates that there is a significantly higher proportion of participants who played a reinforcer role in traditional bullying but an assistant role in cyber bullying than would be expected by chance, while the second indicates that there is a higher proportion of participants who maintained a defender role across contexts than would be expected by chance.

*Traditional-Bystanders and Cyber-Bystander.* A chi-square test revealed no relationship between the frequency of Defending and Reinforcing and the type of bystander (traditional only vs. cyber only),  $\chi^2(3, N = 232) = .226, p = .635$ .

Approximately 72% of traditional-bystanders and 75% of cyber-bystanders reported that they reinforced the bullying in some way; 28% of traditional bystanders, and 25% of cyber

bystanders reported that they had actively defended the victim. Table 6 [Insert Table 6 here] shows a cross-tabulation of the four bystander roles (and a total 'Reinforcer' role), reported by participants who reported witnessing only one type of bullying.

### **Gender and CyberBystander Roles**

A chi-square test revealed a significant association between cyber-bystander roles and gender,  $\chi^2(3, N = 325) = 14.09, p = .003$ . Standardised residuals were calculated and revealed that there were a significantly higher proportion of males who acted as cyber-Assistants than would be expected by chance. Conversely, significantly fewer males acted as cyber-Defenders than was expected by chance. The distribution of bystander roles among female witnesses was not significantly different to what would be predicted by chance.

### **Gender and Traditional-bystander Roles**

A chi-square test revealed that there was no association between traditional-bystander roles and gender,  $\chi^2(3, N = 421) = .772, p = .856$ , suggesting that the proportion of people in each traditional-bystander category did not differ when stratified by gender.

### **Age and Cyber-bystander Roles**

A one-way analysis of variance revealed a statistically significant difference between the mean age of participants in the various cyber-bystander roles,  $F(3, 324) = 4.793, p = .003$ . Post hoc Tukey HSD tests indicated that only the mean age of Outsiders and Defenders differed significantly, with the mean age of cyber-Outsiders ( $M = 14.75$  years) significantly higher than the mean age of cyber-Defenders ( $M = 14.09$  years). Although statistically significant, this difference of a few months probably does not translate to practical, 'real world' significance. The effect size ( $\eta^2 = .043$ ) was small to modest; age by itself accounted for only 4.3% of the overall variance in cyber-bystander behaviour

### **Age and Traditional-bystander Roles**

A one-way analysis of variance revealed no significant differences between the mean age of participants in each of the traditional-bystander roles,  $F(3, 420) = 1.337, p = .262$ .

### **Discussion**

The aims of the present study were to compare cyber and traditional bystander prevalence rates, as well as examine the relationship between age, gender and the type of bullying witnessed (traditional-type only, cyber-type only, both, or neither). Additionally, the study examined whether there was an overlap in traditional and cyberbullying bystander behaviour, and whether age and gender predicted the behaviour of online and offline bystanders.

### **Prevalence Rates**

Over two-thirds of participants reported they had witnessed some form of bullying (traditional bullying only (22.91%), cyberbullying only (9.64%) or both types of bullying (35.75%) in the past 12 months. The results show 44.39% of students witnessed cyberbullying (either by itself or in conjunction with traditional bullying). This is slightly lower than prevalence rates reported by Canadian (56.8%) (Beran & Wade, 2011), and Taiwanese (63.4%) high school students, although the Taiwanese witnesses needed only to be *aware* that cyberbullying had taken place, and the Canadian students were not given a retrospective time frame (students were asked if they had witnessed cyberbullying at least once before). A Luxembourgian study reported 39.9% of high school students had witnessed cyberbullying at least once that year (Steffgen & Konig, 2009). It appears therefore that a prevalence rate of 44.39% is fairly consistent with current literature, given that the definition was restricted to students who had specifically witnessed cyberbullying, and the time frame was within one year.

A prevalence rate of 58.66% for self-reported witnesses to traditional bullying is lower than prevalence rates reported in research that utilises peer nomination and naturalistic observation techniques; peers are present in 85-88% of bullying episodes (Craig & Pepler, 1998; Hawkins, et al., 2001), and 87-90% of students can be assigned a bystander role by their peers using the peer nomination method (Salmivalli et al., 1996; Schafer & Korn, 2004). However, the results are reasonably consistent with other self report methodologies (Rivers et al., 2009; Whitaker, Rosenbluth, Valle, & Sanchez, 2004), and the number of reported bystanders supports the argument that bystanders fulfil a unique role in the traditional bullying and cyberbullying dynamic (Wiens & Dempsey, 2009)

### **Relationship between Traditional- and Cyber-Bystanders**

Previous research suggests an overlap between perpetrators and victims of bullying across traditional and cyber environments – the present study found bystanders sometimes retain their roles across these contexts. Bystanders of one type of bullying had a significantly higher probability of witnessing the other; conversely, non-witnesses in one context were more likely to report not witnessing bullying in the other. This suggests that the Ybarra and Mitchell hypothesis – that students who act as cyberbullies or victims tend to continue that role in ‘real life’ - could be extended to some bystanders of cyberbullying (P. K. Smith et al., 2008; Ybarra & Mitchell, 2004). This was particularly true of the outsider bystander role. Sixty-four percent of students who took the outsider role as a bystander in traditional bullying also took this role in cyberbullying. The retention of bystander roles across contexts reflects previous research findings that most cyberbullies are from the victim’s school (Kowalski & Limber, 2007; Mishna et al., 2010) or are at least known to the victim (Juvonen & Gross, 2008; Mishna et al., 2009; Price & Dalgleish, 2010). The results reflect current thinking that cyberspace is an extension of the school



ground, and supports the metaphor that cyberbullying is a 'new bottle but old wine' (Li, 2007, p. 1777). However, the other bystander roles were not as consistent between traditional and cyberbullying. For students who defended as a bystander in traditional bullying only 45% took the same role in cyberbullying. Students who reinforced in traditional contexts tended to take on the outsider role in cyberbullying. Overall about half of the bystanders maintained their role between traditional and cyberbullying but this was accounted for mainly by the outsider role.

### **Age, Gender and Type of Bullying Witnessed**

The present study showed that males are less likely than females to exclusively witness cyberbullying behaviours. This is consistent with a recent study that found a stronger correlation between cyber victimisation and bullying experiences, and traditional bullying for males than females (Erdur-Baker, 2010). Perhaps males see cyberbullying as only an adjunct to traditional type bullying, whereas females are more likely to see cyberbullying as a mechanism for bullying on its own. This is consistent with the research that shows cyberbullying is a form of relational or verbal aggression, which is associated more frequently with females than males (Dooley, Pyżalski, & Cross, 2009; R. G. Smith & Gross, 2006). There was a significantly higher proportion of 15-year olds who had witnessed both types of bullying than other age groups of students, and a lower proportion of 12-13 year olds, and this likely reflects the differences in technological utility by the age groups (Australian Communications and Media Authority [ACMA], 2009)

### **Relationship between Traditional- and Cyber-Bystander Roles**

A major purpose of the present study was to allocate bystander roles to witnesses of cyberbullying using an adaptation of the Participant Role Scales, a empirically reliable and valid mechanism for categorising the behaviour of traditional bystanders (Camodeca & Goossens, 2005; Goossens et al., 2006; Salmivalli et al., 1996; Sutton & Smith, 1999).

Bystanders are allocated a role (Assistant, Reinforcer, Outsider, Defender) based on whether they fit a behaviour descriptor of their reaction to the bullying. Results show a similar spread of bystander roles among students who witnessed traditional and cyberbullying. 'Outsider' was the most frequent bystander role for all types of witnesses (Traditional-only, Cyber-only or both). The majority of students reported that they had acted in a way that reinforced (either as an Outsider, Reinforcer or Assistant) the bullying behaviour. This pattern of bystander behaviour is consistent with previous research on traditional bullying bystander roles (Salmivalli, et al., 1996; Salmivalli, et al., 2011; Sutton & Smith, 1999). There were more male cyber-Assistants, and fewer male cyber Defenders than expected by chance. Differences in bystander roles among genders is consistent with findings from traditional-bystander research (Goossens et al., 2006), and may be related to studies that show a greater rate of approval of aggression by males than by females (Coyne, Archer, Eslea, & Liechty, 2008)

Although bystanders to each type of bullying report behaving in similar ways, it is important to determine whether bystanders to both types of bullying acted in the same role across contexts. A significant proportion of students reacted differently to cyber and traditional bullying: 34.2% reinforced the bullying behaviour in one context and defended the victim in the other. When the 'Reinforcer' role was broken down into its three sub categories (Assistant, Reinforcer, Outsider), a pattern emerged that suggests witnesses more actively reinforce online bullying (as either an Assistant or Reinforcer) but react more passively (as either a Reinforcer or Outsider) or choose to defend the victim when witnessing traditional bullying. This may be due to a 'disinhibition' effect (Suler, 2004), whereby unique characteristics of cyberspace (such as less eye contact than the 'real world') can lead individuals to behave differently online than they would offline (Lapidot-Lefler & Barak, 2013). The small numbers of participants in each of the Reinforcer roles,

other than the Outsider, make statements about their pattern of behaviour difficult; however, the results indicate that further investigation into the different reactions of witnesses to each type of bullying is warranted. Although the online environment may be responsible for the different behaviour of witnesses to both types of bullying, half of the respondents (50.97%) chose to act the same way across cyber and traditional contexts. This finding, and the similar patterns of bystander behaviour by participants who had witnessed only one type of bullying, has significant implications for future research and intervention strategies.

### **Implications**

If bystanders generally behave in the same way across online and offline contexts, then predictors found to increase Defender-type behaviour in traditional settings could similarly be used to influence cyber bystander behaviour. Feelings of personal responsibility and perception of peer expectations (Gini & Pozzoli, 2010), empathy (Gini et al., 2007), and social self-efficacy (Gini et al., 2008) are group and individual factors that are shown to influence a traditional-bystander's decision to actively oppose, passively reinforce, or actively support a bully's behaviour. Harnessing the power of bystanders to actively intervene on behalf of a victim may well be more important for managing cyberbullying than for managing traditional bullying in light of research that shows students are less willing to inform adults about incidents of cyberbullying (Juvonen & Gross, 2008). Students are reported as viewing adults as foreign to the online world, and are ultimately more concerned about threats to their online access than informing adults of cyberbullying incidents (Mishna et al., 2009; Pearce et al., 2011). Students are more likely to report the bullying to their friends than to adults (Huang & Chou, 2010; Li, 2010; Price & Dalgleish, 2010) although most students tell no one (Li, 2010; P. K. Smith et al., 2006). Without being aware of cyberbullying, parents and teachers are unable to help. The

prevalence of bystanders in the online environment revealed in the present study only serves to reinforce the importance of investigating cyber-bystanders as potential means of intervention.

### **Limitations and Future Research**

It is important to note the limitations in this study. First, the results stem from a limited sample of students from two private, independent schools from an inner-metropolitan area. Bias may exist in the sample as the schools volunteered to participate, and this might suggest that they are taking a more proactive and concerned approach to bullying than other schools who chose not to participate or volunteer. One school reported that they had been using the concept of the bystander in their anti-bullying initiative that year. Further, there was an over representation of females in the present study, which may have confounded the findings. Studies have found differences between the way that males and females bully as well as their reactions to bullying; there is higher support for bystanders among females (Trach et al., 2010) and females tend to engage in more covert-bullying behaviours (Cross et al., 2009). Results should therefore be interpreted with caution, and a study of cyberbullying bystander behaviours using a more representative sample would add considerably to the current literature on bystander intervention.

Besides limitations to the generalisability of the findings, another concern is the retrospective self-report methodology used in the present study. Witnesses were asked to recall the most recent episode of bullying they witnessed and choose a descriptor that best matched their behaviour. There are several advantages of self report measures of bystander behaviour, including practical advantages of administration to allow for a greater sample size, and the difficulty of employing a peer nomination method in a high school setting where classes are large and all students may not know each other (Goossens et al., 2006). However, children tend to underestimate their participation in active bullying behaviour

when asked to self report bystander behaviour (Salmivalli et al., 1996; Sutton & Smith, 1999) and the results should be interpreted with this in mind. Relying on subjective recollections of students may also reduce the reliability and validity of the information. Rivers (2001) assessed the stability of recollections of gay and bisexual participants who had been bullied at school. He found that recall of the frequency, duration, and location of bullying incidents was relatively stable over a 12-18 month period although recollections of subsequent outcomes was relatively less stable. As the present study relied on students recalling the outcome of the bullying incident (that is, how they reacted to it) the results may be affected by recall bias. Additionally, the present study was cross sectional in nature and therefore a temporal understanding of the data cannot be determined. Future research may employ multiple methods of data collection to confirm the validity of students' reports, and a longitudinal design can improve the reliability of witness' recall.

Participants were instructed not to complete the questionnaire if they did not wish to, and there was a final incompleteness rate of 23% across the two participating schools. There are a number of hypotheses as to why students did not complete the survey and there may be a common confounding variable (for example, students who had witnessed bullying were less likely to complete the survey) that is responsible for the incompleteness rate. Future studies might incorporate a question that elicits the reason from the participant as to why they did not complete the survey.

This study has extended the current literature on cyberbullying to incorporate the role of the cyberbystander and examine the overlap in bystander roles across contexts. However, this research is still in its infancy relative to research on the role of bystanders in more traditional settings. Future research might continue to explore the relationship between online and offline bullying bystander behaviour, particularly whether similar group and individual factors predict the behaviour of bystanders across contexts. This

study will hopefully encourage more research on whether established traditional bullying findings can inform future intervention and policy against cyberbullying too.

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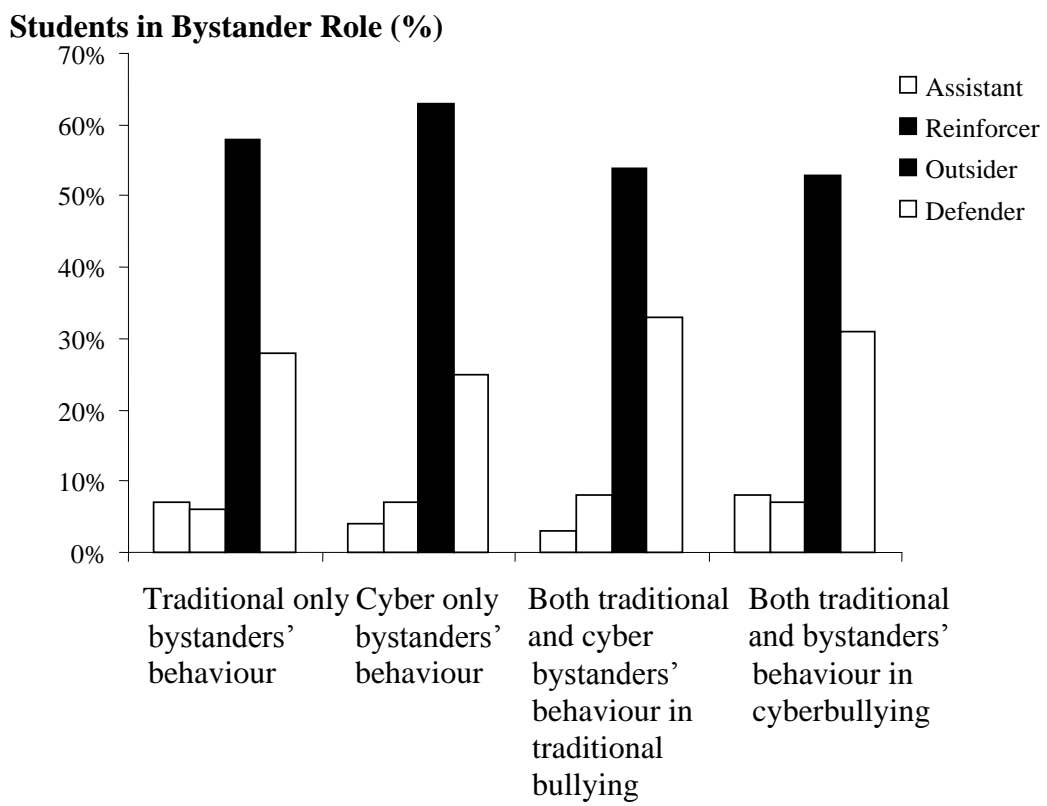


Figure 1: Percentage of students in each bystander role for each type of bullying witnessed.