Cyberbullying among Adolescent Bystanders: Role of the Communication Medium, Form of Violence, and Empathy

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ABSTRACT

The purpose of this study was to understand how adolescents respond as bystanders of cyberbullying and to seek factors that might influence their actions. The study explored the effects of type of contact (online vs. face to face), form of violence (private vs. public), and empathy activation (affective and cognitive) on negative bystander behaviour understood as active participation in victimisation. The influence of experience of cyberbullying as perpetrator and as victim and gender on negative bystander behaviour was also controlled. Three experimental studies were conducted. The results indicate that online contact increases the likelihood of negative bystander behaviour. Private violence was less likely to elicit negative bystander action than was public violence. Previous experience of cyberperpetration was proved to increase the probability of negative bystander behaviour. Neither gender nor cybervictimisation affected the engagement in negative bystander behaviour in any of the studies. The inhibitory effect of empathy activation (both affective and cognitive) on negative bystander behaviour was demonstrated. Both types of cognitive empathy induction, emotion and behaviour focused, diminish the likelihood of negative bystander behaviour. The conclusions of the research are that negative bystander behaviour occurs more often in cyberspace than offline and that forms of intervention involving both affective and cognitive empathy may limit the negative bystander behaviour that supports cyberbullying. Copyright © 2012 John Wiley & Sons, Ltd.

Key words: cyberbullying; bystanders; adolescents; empathy

INTRODUCTION

For adolescents, the Internet is a natural environment for gaining experience and satisfying social needs. Cyberbullying is a novel social phenomenon whose consequences and scale...
(Barlińska & Wojtasik, 2008; Hinduja & Patchin, 2008; Li, 2006; Walrave & Heirman, 2011) necessitate the development of empirically validated guidelines for intervention and prevention.

Research has clearly demonstrated that bystanders play a significant role in bullying, being regarded as the ‘invisible engine in the cycle of bullying’ (Twemlow, Fonagy, Sacco, Gies, & Hess, 2001). The emphasis on the importance of bystanders as powerful moderators of behaviour is increasing (Salmivalli, 1999) also in the context of cyberbullying (Ball, 2007; Kraft, 2011).

In this project, we focus on the negative aspects of the activities of witnesses. In this context, a bystander audience in cyberspace can play an active role by participating in the victimisation. Although they may not have created a text or image, individuals are complicit in spreading it to ever-widening audiences. The decision to forward a nasty message makes the boundary between perpetrator and negative bystander a very fine one (Spears, Sle, Owens, & Johnson, 2008).

Although, as in traditional bullying, the best way to react as a bystander might be by actively disapproving the acts of the bully and defending the victim, in cyberspace, inactive behaviour has a different connotation than it does in direct contact and is positive to some degree. Being a bystander inactive in the process of harming by choosing not to post or forward but to delete nasty materials seems to be an important part of the solution to the problem of cyberbullying, as this prevents the audience for cyberbullying from being enlarged. This kind of reaction over the Internet towards someone being bullied entails some degree of moral engagement in not being part of the problem (Spears et al., 2008).

**Cyberbullying: online peer bullying**

In the context of adolescents, *bullying* is defined as the intentional, negative actions of one or more pupils over an extended period, involving repeated, direct attacks on another student who, due to the perpetrator’s advantage (whether physical or psychological), is unable to defend himself or herself (Olweus, 1993). By extension, cyberbullying should possess all those features, but the main difference is that it is committed via the medium of modern communication technologies (Williams & Guerra, 2007). Due to the specifics of the utilisation of these technologies, a number of characteristic features of bullying, for example, repeated attacks, become ambiguous in cyberspace (Boyd, 2007). This complicates the task of finding a precise definition.

For the purpose of this project, we treat cyberbullying in general terms as violence committed by perpetrators and bystanders using information and communication technologies and various functionalities of the Internet, especially messaging software and social networking services.

Also, the context of roles necessitates refining the basic definition of bullying, from a dyadic (bully–victim) to a triadic (bully–victim–bystander) perspective (Twemlow et al., 2001). From this point of view, cyberbullying committed via instant messengers and social networking services can be regarded as a group phenomenon in which young Internet users are either intentionally or unintentionally involved in bullying as active or inactive bystanders (Ball, 2007).

Cyberbullying can assume a number of forms, for example, online harassment, intimidation, and blackmail. Still, the most common form in the population of Polish teenagers is verbal bullying and the publication or dissemination of derisory and defamatory images...
or videos. Interestingly, in over a half of all bullying cases, Polish adolescents are humiliated by strangers. Unfamiliar peers appear to be especially active as perpetrators or negative bystanders (Barlinska & Wojtasik, 2008).

The characteristics of online interaction and bystander behaviour

Bystanders in cyberbullying can easily engage in perpetration (Kowalski, 2008), for example, by forwarding or posting an image designed to humiliate another child. At the same time, bystanders often do not perceive themselves as actual participants, although they undertake actions that contribute to the harassment (Kraft, 2011). The characteristics of computer-mediated communication are partly responsible for making teenagers particularly susceptible to taking part in bystander behaviour that supports cyberbullying.

The key factor in this is the perceived online anonymity (McKenna & Bargh, 2000) of the actor and the potential partner of the interaction – both victim and bystander. It facilitates deindividuation and the diminution of a sense of responsibility (McKenna, 2008). This leads to Internet disinhibition (Joinson, 1998), which consists of the loss of self-control and the absence of restraints in social behaviour typical of direct interaction (Suler, 2004).

Although interaction in cyberspace is becoming more and more visual, non-verbal communication is still limited when compared with face-to-face contact. Online interaction lacks access to a whole host of information, such as that provided by facial expressions, eye contact, or physical distance, which could modify the behaviour (Suler, 2004) through the automatic activation of empathy as an inhibitor of aggression (Hoffman, 2000) in cyberspace (Smith et al., 2008; Steffgen & König, 2009). Limited feedback regarding the impact of online activity on other users produces the ‘cockpit effect’ (Heirman & Walrave, 2008), wherein bystanders are often unaware of the actual harm caused to the victim (Kraft, 2011).

It creates distinctive conditions that encourage unwitting aggression, which supports cyberbullying by negative bystander behaviour.

Public versus private forms of cyberbullying

The size of the audience bearing witness to an act of bullying may influence the chances of negative bystander behaviour occurring. It is also the defining criterion that differentiates private from public forms of violence. This is equally true of traditional bullying and cyberbullying. Yet in cyberbullying, this distinction seems more important than in face-to-face forms of bullying. Cyberbullying referred to as a ‘cowardly form of bullying’ (Belsey, 2008) creates circumstances, in which private communication seems to have the potential to exacerbate behaviour that supports bullying (Ball, 2007).

Negative bystander behaviour is more readily performed by means of private forms of violence as private communication may allow a more selective and purposeful choice of recipients – those who share and approve of such standards of behaviour. It increases the probability of escaping unpunished and involves a negligible risk of adult intervention. Because social norms, including those norms that prohibit causing harm to others and actualise the potential penalty for their transgression, are more readily activated in a public setting (Wicklund, 1975), we expected that negative bystander behaviour might occur more frequently in private forms of violence.
Empathy as inhibitor of cyberbullying

Apart from minor definitional differences, there is a general consensus that empathy is determined by circumstances and the condition of the other person as experienced by the subject. Empathy can be described as an ‘affective response more appropriate to someone else’s situation than to one’s own’ (Hoffman, 1982, p.281) or as the ability to recognise, understand, and share the emotions and sensations of others (Singer & de Vignemont, 2006). The exploration of cyberbullying among adolescents focuses on the developmental aspect of empathy (Hoffman, 2000). It is considered to be a continuum, with affective and cognitive empathy at its two extremes.

Affective empathy (Eisenberg, 2000; Hoffman, 2000) is a basic process, analogous to the affective content of incoming stimuli. It is manifested in the ability to effortlessly sense and powerfully experience the emotions of others. This ability to respond to the states of other people is believed to be innate or to emerge early in ontogenesis. Empathy is triggered by direct contact with another person. No particular activity is required; merely noticing a situation suffices. This kind of empathy is based on superficial cues and requires the mediation of basic cognitive processes.

Cognitive empathy is the ability to understand the beliefs, feelings, and intentions of others (Decety & Jackson, 2004). It underlies the ability to abstract from a specific or directly available situation. Moreover, cognitive empathy controls the ability to anticipate the consequences of one’s actions on others, including violent acts. Cognitive empathy is free from a number of the limitations of affective empathy occurrence, such as the necessity of direct contact with another person and sharing their emotional state. Activation of more advanced modes of empathic stimulation, such as change of perspective, triggers qualitatively different responses. These processes may be extended in time and be subject to volitional control, thereby significantly expanding the scope of empathy beyond direct interaction (Hoffman, 2000).

Research has demonstrated the importance of cognitive empathy. It is typically operationalised as perspective taking or role taking in shaping positive social relationships (Batson, 1991; Eisenberg et al., 1993), as well as reducing negative behaviour such as prejudice (Galinsky, Ku, & Wang, 2005) and enhancing tolerance of stigmatised groups (Batson et al., 1997). Active teaching of perspective taking has become an effective component of prevention and therapy programmes (Chalmers & Townsend, 1990; Robinson & Maines, 1997), amending cognitive empathy deficits in, among others, young offenders engaging in violence and bullying their peers at school.

In the context of cyberbullying, the role of empathy in mitigating negative bystander behaviour is of particular importance. The cognitive and affective components of empathy have been shown to reduce aggressive behaviour (Jolliffe & Farrington, 2004) and the propensity for committing offences and engaging in peer violence (Davis, 1994). Cyberbullies have also been found to have lower cognitive dispositional empathy towards their potential victims (Steffgen & König, 2009). Increasingly, neuroscientists, psychologists, and educators believe that antisocial behaviour can be reduced by encouraging empathy at an early age.

Research into the effects of empathy on cyberbullying has yet to address the third-party role played by bystanders. The studies referenced above support the view that empathy is a potentially important inhibitor of bystander behaviour that supports bullying.
Significance of victimisation and perpetration cyberbullying experience

Similar to real life, online aggression affects the way people act towards others (Ybarra & Mitchell, 2004). Research findings have confirmed that there is an interaction between the experience of being a perpetrator of cyberbullying and that of being its victim (Walrave & Heirman, 2011; Ybarra & Mitchell, 2004). This also applies to a lesser extent to traditional bullying. In addition, the two kinds of bullying – online and face to face – are related (Slonje & Smith, 2007; Smith et al., 2008). This is because past involvement in the perpetration of violence reinforces aggressive behaviour through operant conditioning and modelling (Bandura, 1973).

Bystanders’ exposure to cyberbullying is another source of new forms of aggression, increasing the probability of enacting forms of bullying (Parke & Slaby, 1983). This can make bystanders support cyberbullying more easily (Kowalski, 2008) as it raises their overall tolerance to violence.

The experience of victimisation is another factor that facilitates bullying. The sense of isolation and helplessness experienced by victims of cyberbullying may prompt them to support bullying more easily, by exacting a kind of revenge on their persecutor or on another person or social group.

These dependencies allow us to expect the existence of relationships between the experience of being a perpetrator or victim of cyberbullying and the characteristics of bystanders’ behaviour.

Gender

Gender is a factor that may differentiate the severity of bullying both in face-to-face and online interactions. Yet the existing data on cyberbullying are inconclusive. Some suggest that cyberbullying perpetration is more prevalent among boys (Dehue, Bolman, & Vollink, 2008; Li, 2006) and that girls are more often victims (Smith et al., 2008). Others have found no gender differences (Hinduja & Patchin, 2008; Slonje & Smith, 2007; Williams & Guerra, 2007; Ybarra & Mitchell, 2004).

When it comes specifically to bystanders, the data show that there are no gender differences in peer interventions either in traditional bullying (Ball, 2007) or in cyberbullying cases (Li, 2006). In the present study, gender differences are examined in relation to negative bystander behaviour in supporting cyberbullying.

Overview of research

We present three experimental studies conducted on a randomised sample of pupils aged 11–18 years. The aim of the studies was to identify the factors that facilitate and inhibit negative bystander behaviour in supporting cyberbullying. The effect of gender and being the victim and/or perpetrator of cyberbullying was controlled.

STUDY 1

The purpose of the first study was to compare the likelihood of negative bystander behaviour in two types of interactions: online and face to face. The characteristics of contact in cyberspace may encourage impulsive behaviour and may increase the propensity for
bystander behaviour supporting cyberbullying. Therefore, we decided to test in a controlled setting whether online interaction is associated with a higher likelihood of negative bystander behaviour than face to face contact. In addition, the public versus private dimension effect was explored. As the selective and purposeful choice of addressees creates a group of recipients who share and approve of such standards of behaviour (Willard, 2006), we expected that the chance of negative bystander behaviour would be greater in private forms of violence.

Participants
The sample consisted of 760 pupils (380 boys and 380 girls) aged 11–18 years ($M_{\text{age}} = 14.91$ years; $SD_{\text{age}} = 1.04$ years) from junior high schools and high schools from three provinces of Poland.

Manipulation
Each participant received a ‘Message from a peer’; its main element was in the form of a picture containing a debasing image manipulated to show a boy’s face on the body of a dog with the following comment: ‘Hi, this is my classmate, he looks like a total fool’. The situation was inspired by actual cases reported to helpline.org.pl, which provides support to victims of Internet threats.

A Web application, simulating a popular online communication tool among teenagers, was used in the online condition. In the face-to-face condition, the message was provided on a sheet of paper to reproduce the actual social context of a typical classroom situation.

Participants were assigned to one of four conditions: face to face versus online and private versus public. The task was to make a decision on whether the cyberbullying material should be public or not. This decision was the indicator of active versus inactive bystander behaviour. The forms of active or passive behaviour varied depending on the condition:

- ‘pass the message to another student’ or ‘throw it away’ in private the face-to-face condition;
- ‘forward to a peer’ or ‘delete’ in the private online condition;
- ‘put it up in the school’s hall’ or ‘throw it away’ in the public face-to-face condition;
- ‘add to class profile’ or ‘delete’ in the public online condition.

Procedure
The study was anonymous and carried out in groups. To control access to the online version of the study, each participant logged in using a unique, one-time password. The study was conducted as an in-class (computer laboratory) experiment following a 2 (online vs. face-to-face condition) $\times$ 2 (private vs. public conditions) between-participant design with random group assignment.

The opening task was ‘Message from a peer’. After reading the message, participants were asked to choose how to act; then, participants completed a questionnaire on the experience of cyberbullying.

Measures
A 10-item scale of cyberbullying experience (Barlinska & Wojtasik, 2008) was employed. The questionnaire consists of two subscales, each containing five questions, related to
experiencing incidents of cyberbullying as the perpetrator (e.g. ‘Have you ever posted or sent material that was false or embarrassed someone?’) and victim (e.g. ‘Has anyone ever posted false or embarrassing materials about you?’). Answers were indicated on a 4-point Likert-type scale (1 – never, 4 – several times). Both scales (M_victim = 1.60, SD = 0.61, and M_perpetrator = 1.74, SD = 0.68) proved to be internally consistent, α = .81 and α = .74, respectively. The composite scores were used in further analyses.

Results
To evaluate whether gender, the type of contact (online vs. face-to-face), and form of violence (private vs. public) affected the likelihood of negative bystander behaviour, a logistic regression analysis was conducted, with selected behaviour (0 – inactive, 1 – active) as the dependent variable. To address the question of whether previous experiences of cyberbullying influenced negative bystander behaviour, a second model with an additional block was tested. In the first model, gender, type of contact, and form of violence were entered. In the second step, previous experiences as a victim and perpetrator of cyberbullying were included in the model.

Table 1 presents the results of the hierarchical logistic regression analysis and includes the values of individual regression coefficients and odds ratios with 95% confidence intervals, Wald’s chi-squared with the significance level for each variable, overall model fit statistics, and several measures of association.

The overall model statistics suggest a good fit and the predictive abilities of the model. The results of the first step indicate that negative bystander behaviour is more likely to occur in online than in face-to-face contact. Furthermore, the public context of violence decreases negative bystander behaviour regardless of the type of contact. In additional, the results show that gender is not related to the choice of behaviour. In the second step, past experiences of cyberbullying were entered. This model was superior to the previous one in terms of overall fit, showing the significant impact of these experiences. However, only experience as perpetrator was significant and served as an independent predictor of negative bystander behaviour.

Table 1. Logistic regression for cyberbullying and gender, type of contact, form of violence, and experiences with cyberbullying

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE B</th>
<th>Wald’s χ²</th>
<th>OR (95% CI)</th>
<th>Block χ²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (0 – girls)</td>
<td>−0.03</td>
<td>0.16</td>
<td>0.05</td>
<td>0.97 (0.71–1.32)</td>
<td></td>
</tr>
<tr>
<td>Contact (0 – face to face)</td>
<td>0.48</td>
<td>0.16</td>
<td>9.08*</td>
<td>1.62 (1.18–2.21)</td>
<td></td>
</tr>
<tr>
<td>Form (0 – private)</td>
<td>−0.65</td>
<td>0.16</td>
<td>16.43**</td>
<td>0.52 (0.38–0.71)</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>57.99**</td>
</tr>
<tr>
<td>Experience as perpetrator</td>
<td>0.83</td>
<td>0.15</td>
<td>30.93**</td>
<td>2.29 (1.71–3.07)</td>
<td></td>
</tr>
<tr>
<td>Experience as victim</td>
<td>0.12</td>
<td>0.17</td>
<td>0.50</td>
<td>1.13 (0.81–1.57)</td>
<td></td>
</tr>
<tr>
<td>Overall model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood ratio test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>85.90**</td>
</tr>
<tr>
<td>Score test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>84.66**</td>
</tr>
<tr>
<td>H&amp;L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.49</td>
</tr>
</tbody>
</table>

*p > .05; **p < .001.
Step 1: Cox & Snell R² = .04; Nagelkerke R² = .05; McFadden R² = .03.
Step 2: Cox & Snell R² = .11; Nagelkerke R² = .15; McFadden R² = .09.

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STUDY 2

Research on empathy in the context of cyberbullying has shown relatively low levels of empathic stimulation in the perpetrator during interaction with the victim (Steffgen & König, 2009). Activation of affective empathy preceding a potential cyberbullying act may reduce the probability of the act by inducing emphatic arousal through automatic, uncontrolled mechanisms. We decided to test whether affective empathy activation is associated with a lower likelihood of negative bystander behaviour.

Participants

The sample consisted of 296 pupils (189 boys and 107 girls) aged 12–18 years (Mean age = 15.35 years, SD = 1.24 years) from junior high schools and high schools.

Manipulation

To activate affective empathy, a 2-minute video recording was used presenting a case of cyberbullying, the victim’s feelings, and the effects on her behaviour.

A pilot test examined the effectiveness of the empathy manipulation. In a between-group experimental study, we tested whether watching the movie would change the emotional state of participants. We used a Polish adaptation of the positive and negative affect schedule (PANAS; Watson, Clark, & Tellegen, 1988). Forty-four junior high school pupils were split in two groups (21 in the movie and 23 in the no-movie condition). In the first condition, the participants watched the movie and then completed the 20-item PANAS scale. In the control condition, the participants only completed the scale.

To compare emotions across groups, an analysis of variance with mixed design was conducted, involving a 2 (condition) × 2 (positive and negative emotions) design, with the first factor varying between participants and the second factor within participants. A significant condition × emotions effect was found, $F(1,42) = 23.67$, $p < .01$; $\eta^2_p = 0.36$. Post hoc analysis showed that in the control group, positive emotions were significantly higher ($M = 3.22$) than those in the group that had seen the movie ($M = 2.05$), and the difference was very large ($d = 1.64$). The opposite pattern was found for negative emotions – these were higher in the movie condition ($M = 1.83$) than that in the control condition ($M = 1.34$). The difference here was smaller but still substantial ($d = 0.68$).

The pilot test showed that watching the manipulation movie changed the emotional state according to the signs of the emotions exposed: It strengthened the experience of negative emotions and decreased the experience of positive emotions. It is typical of the reaction of sympathy – a symptom of empathy.

Procedure

The study followed a between-participant design. The place of the study and procedure were similar to Study 1. First, pupils were randomly assigned to experimental (empathy activation) or control (no activation) conditions. Next, the ‘Message from a peer’ task with the selection of type of behaviour was conducted. Only the online version of the tool was used. Participants were making a choice between two options: ‘forward’ or ‘delete’. Finally, the experience of cyberbullying scale was administered.
Measures

The same 10-item scale of cyberbullying experience was employed as that in Study 1. Both scales proved to be reliable: \( M_{\text{victim}} = 1.40, SD = 0.56, \alpha = .76 \), and \( M_{\text{perpetrator}} = 1.41, SD = 0.55, \alpha = .78 \).

Results

To evaluate whether activation of empathy is reducing the likelihood of negative bystander behaviour, logistic regression analysis was conducted, with selected behaviour (0 – inactive, 1 – active) as the dependent variable. In addition, for control purposes, previous experiences of cyberbullying and gender were included in the model.

Table 2 presents the logistic regression results for negative bystander behaviour predicted by gender, previous experience of cyberbullying, and experimental condition (empathy activation). The results show a substantial effect of the experimental condition, significantly decreasing the odds of negative bystander behaviour. In addition, the results show a strong effect of previous experience as perpetrator in predicting negative bystander behaviour. Effects for gender and previous experience as a cyberbullying victim were not significant. These findings are consistent with the previous study.

STUDY 3

The aim of Study 3 was to examine the effects of cognitive empathy on negative bystander behaviour. Research has demonstrated the importance of cognitive empathy in reducing negative behaviour (Batson et al., 1997; Galinsky et al., 2005). The focus has been on two aspects of cognitive empathy: anticipation of (i) emotions experienced by the other person and (ii) the other person’s behaviour in response to the harm to his or her well-being. A number of reports have supported the efficacy of this form of induction (Krevans & Gibbs, 1996; Parke & Swain, 1980) for enhancing the understanding of the consequences of one’s own behaviour. It was expected that actively taking the perspective of another person by focusing on the negative consequences of cyberbullying for its victim would decrease the odds of negative bystander behaviour.

Table 2. Logistic regression for cyberbullying and empathy activation

<table>
<thead>
<tr>
<th>Predictor</th>
<th>( B )</th>
<th>( SE )</th>
<th>Wald’s ( \chi^2 )</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (0 – girls)</td>
<td>-0.35</td>
<td>0.37</td>
<td>0.88</td>
<td>0.70 (0.34–1.46)</td>
</tr>
<tr>
<td>Experience as perpetrator</td>
<td>1.69</td>
<td>0.37</td>
<td>21.24**</td>
<td>5.43 (2.64–11.13)</td>
</tr>
<tr>
<td>Experience as victim</td>
<td>-0.55</td>
<td>0.42</td>
<td>1.71</td>
<td>0.57 (0.25–1.32)</td>
</tr>
<tr>
<td>Empathy (0 – no movie)</td>
<td>-1.09</td>
<td>0.40</td>
<td>7.45*</td>
<td>0.34 (0.15–0.74)</td>
</tr>
<tr>
<td>Overall model</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood ratio test</td>
<td></td>
<td></td>
<td>( \chi^2 )</td>
<td></td>
</tr>
<tr>
<td>Score test</td>
<td>38.72**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H&amp;L</td>
<td>44.44**</td>
<td></td>
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<td></td>
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<tr>
<td>Cox &amp; Snell ( R^2 )</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nagelkerke ( R^2 )</td>
<td>.21</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>McFadden ( R^2 )</td>
<td>.15</td>
<td></td>
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</tbody>
</table>

\(*p < .01; **p < .001.\)

Cox & Snell \( R^2 = .12; \) Nagelkerke \( R^2 = .21; \) McFadden \( R^2 = .15.\)
Participants

The sample consisted of 288 pupils (140 boys and 148 girls) aged 12–18 years ($M_{age} = 14.83$ years, $SD_{age} = 1.5$ years) from junior high schools and high schools.

Manipulation

To activate two types of cognitive empathy, the same 2-minute movie was used as in Study 2. An instruction activating conscious and reflective processes preceded the video. In the experimental conditions, the participants were instructed to identify with the situation depicted in the video and to focus on those aspects that reflected the victim’s emotions in the first condition and behaviour in the second condition. To activate the process of cognitive empathy, the participants were asked to select from a list of emotions/behaviours that appeared in the recording. In the control condition, the participants were instructed to focus on the elements of the background and were asked to select from a list of elements that appeared in the recording.

Procedure

The nature and place of the study were the same as in Studies 1 and 2. The design of the study followed a simple between-subject experimental design: two types of cognitive empathy activation (focus on emotions vs. behaviour) and a control group with focus on background details.

First, participants watched a short video and completed a short task; then, they were asked to select a behaviour in the ‘Message from a peer’ task. Finally, the scale of previous experience of cyberbullying was applied.

Measures

The same 10-item scale of cyberbullying experience as in Studies 1 and 2 was employed. Both subscales proved to be reliable: $M_{victim} = 1.39$, $SD = 0.61$, $z = .81$, and $M_{perpetrator} = 1.39$, $SD = 0.59$, $z = .79$.

Results

To address the hypothesis concerning the influence of the activation of different aspects of empathy on reducing negative bystander behaviour, hierarchical logistic regression analyses were conducted. In the first step, gender and previous experience with cyberbullying were entered into the model. In the second step, aspects of empathy (dummy coded experimental group) were entered.

Table 3 shows the results of two logistic regression models predicting negative bystander behaviour. The first model shows results consistent with the two previous studies, suggesting that gender and earlier victimisation do not predict negative bystander behaviour, and only past experience as perpetrator is strongly related to behavioural preference. The second model, presenting a better overall fit, shows that both experimental conditions significantly decrease the odds of negative bystander behaviour. There is a slight difference in effect size between the emotion and behaviour conditions. However, it is so little that it does not provide
a basis for suggesting that one of the methods could be more effective in preventing negative bystander behaviour.

**GENERAL DISCUSSION**

The purpose of the studies was to identify factors modifying the occurrence of negative bystander behaviour among adolescents. The results indicate that there are three factors that increase the likelihood of negative bystander behaviour occurring: (i) the cyberspace conditions, (ii) the private nature of the act, and (iii) the experience of being a cyberbullying perpetrator. Two factors decreased negative bystander behaviour: (i) affective empathy activation and (ii) cognitive empathy activation.

The results of Study 1 confirm the effect of the type of contact. Online contact increased the likelihood of negative bystander behaviour. This is consistent with other research data on the aspects typical of online interaction, which may increase the propensity for violence (Heirman & Walrave, 2008; Joinson, 1998; McKenna, 2008; McKenna & Bargh, 2000; Suler, 2004). The private dimension of violence proved to be an important factor as the conditions in which a behaviour is accessible to one or only a few observers encourage antisocial choices. This result is in line with data presenting the effects of exposure in the public context, which limits socially disapproved behaviour by activating social norms prohibiting harming others (Wicklund, 1975).

Results obtained in Study 2 confirm the role of affective empathy in mitigating the support of bystanders for cyberbullying activity. In the affective empathy condition, the probability of negative bystander behaviour was significantly lower than that in the control condition. Mere contact with a situation affecting the well-being of another person proved to be sufficient to curb such behaviour. It should be noted that the empathy-activating material (circumstances of a cyberbullying victim) was consistent with the subject matter of the next task: sending a defamatory message online. Thus, affective empathy reduced the analogous behaviour.
The results of Study 3 indicate that actively taking the perspective of another person by focusing on the negative consequences of cyberbullying for its victim reduces bystander behaviour in support of cyberbullying. Underlying this behaviour modification is the ability to ‘mentalise’ (Frith & Frith, 2003), which is unique to the cognitive aspect of empathetic responses. It encourages a deeper understanding of the other person’s circumstances. Both types of induction – emotion and behaviour focused – diminished the likelihood of negative behaviour. Our results are coherent and consistent with those of others concerning the role of empathy (Hoffman, 2000) and perspective taking (Clore & Jeffrey, 1972), which confirms their validity. They also extend the current knowledge on the associations of cyberbullying and empathy, showing that the situational activation of empathy may also limit behaviour supporting online aggression.

The results of all three studies suggest that gender does not affect negative bystander behaviour, which is consistent with others’ results (Ball, 2007; Li, 2006). Experience of being a cyberbullying victim was not found to be associated with involvement in behaviour that supported bullying, whether online or in face-to-face contact. However, being a perpetrator of cyberbullying turned out to be an important predictor of negative bystander behaviour in all of the studies. This result, different from the one concerning cybervictimisation, is in line with earlier studies emphasising the relations between roles in cyberbullying (Walrave & Heirman, 2011; Ybarra & Mitchell, 2004) and can be interpreted in several ways. First, it may reflect a well-rooted propensity for aggression in some adolescents. Second, social learning theory (Bandura, 1973) offers an explanation of this relationship in the form of the effect of being trained to ‘be a perpetrator’.

Unlike most research on the phenomenon of cyberbullying, the present studies employed an experimental method. It seems that this may provide an alternative to prevalent questionnaire-based studies on cyberbullying, which can be particularly problematic because of discrepancy between declaration and behaviour (Ajzen & Fisbein, 1977).

Of course, the present studies have some limitations. First, the results were achieved in a group of adolescents aged 11–18 years, and these cannot be generalised to different age groups. Second, the investigated behaviour is only one of the many possible acts of negative bystander behaviour. Its fairly mild form restricts the possibility of generalising our findings to more severe forms of online violence. Third, we measured cyberbullying bystander behaviour in a specific Internet environment – through the simulation of an instant messenger– which limits the possibility of predicting how respondents would react using different Internet functionalities. Furthermore, our studies made the distinction between the private and public dimension of violence: Private is associated with one-to-one communication, and public, with one-to-many communication. Finally, the methods of empathy activation were a variation of the real-life induction method used by Hoffman (2000). They proved to be equally effective in cyberspace but are not free from shortcomings. Empathy was activated by a video referring to the context of cyberbullying in a between-group experiment. The question whether the activation of empathy in a context which is not specific to cyberbullying would prove to be equally effective in restricting online violence remains open. Also, the design of the studies needs to be enriched by a schema using pretesting and posttesting to give us stronger proof.

The present research programme has certain practical implications. It may serve as the basis for creating various age and ability-specific forms of intervention and prevention that are focused on bystander behaviour – increasingly perceived as the key for solving the problem of cyberbullying (Kraft, 2011; Spears et al., 2008). Although the decision to
interrupt bullying makes bystanders become part of the solution in both real life and cyber space, this seems to operate in different ways in each environment. In real life, individuals must actively do something to intervene. In cyber space, individuals must actively choose not do something (Spears et al., 2008). That is why encouraging adolescents not to forward cyberbullying material seems to have special importance in preventing and stopping cyberbullying.

The confirmation of the efficiency of empathy in curbing negative bystander behaviour seems to be an important conclusion of this study. The basic embodied processes of affective empathy and generation of the more complex, cognitive functions of empathy by employing induction may prove helpful in achieving this outcome. Both aspects of accessibility to an external perspective appear to play a fundamental part in limiting behaviour that supports cyberbullying.

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