Ganging up or sticking together? Group processes and children’s responses to text-message bullying

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Drawing on social identity theory and intergroup emotion theory (IET), we examined group processes underlying bullying behaviour. Children were randomly assigned to one of three groups: a perpetrator’s group, a target’s group, or a third party group. They then read a gender-consistent scenario in which the norm of the perpetrator’s group (to be kind or unkind towards others) was manipulated, and an instance of cyberbullying between the perpetrator’s group and a member of the target’s group was described. It was found that group membership, group norms, and the proposed antecedents of the group-based emotions of pride, shame, and anger (but not guilt) influenced group-based emotions and action tendencies in ways predicted by social identity and IET. The results underline the importance of understanding group-level emotional reactions when it comes to tackling bullying, and show that being part of a group can be helpful in overcoming the negative effects of bullying.

Bullying and hostility among children is a long-standing and pervasive social issue, and in extreme cases in the UK has included the murder of children in and around schools (e.g., Siddique, 2008). There is a strong tendency in lay explanations of these phenomena to see groups as part of the problem, particularly when they are characterized as ‘gangs’ (e.g., Davies, 2009). This perspective was underlined by a recent UK report (Broadhurst, Duffin, & Taylor, 2008) on how schoolchildren’s increasing involvement with gangs could lead to increased violence in schools.

Nevertheless, most research on bullying has tended to overlook the role of group processes, focusing instead on factors within the dyadic relationship between the perpetrator and target (see Jones, Haslam, York, & Ryan, 2008). In contrast, Salmivalli and colleagues (e.g., Salmivalli, 1999) highlight the roles that children, other than perpetrator and target, such as bystanders, play in the bullying process. Some other recent research on bullying at school has shown that peer groups do shape the ways in which children interpret and respond to bullying (e.g., Duffy & Nesdale, 2009; Gini, 2006, 2007; Jones et al., 2008; Jones, Manstead, & Livingstone, 2009; Ojala & Nesdale, 2004). The main aim of the present study was to extend this line of work by examining group processes in the context of cyberbullying. More specifically, our objective was to study the role

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played by peer group membership, peer group norms, and in-group identification in shaping children’s emotional reactions to a cyberbullying incident.

We aim to offer a nuanced view of the role of groups in bullying among children. Research suggests that children value the protection afforded by gang affiliations, and stick together in groups for this reason (Seaman, Turner, Hill, Stafford, & Walker, 2006). Moreover, research on intergroup relations between adults has shown that social identities and groups are important in providing a basis for resisting the harmful intentions of others (e.g., Iyer & Leach, 2008; Van Zomeren, Postmes, & Spears, 2008; Van Zomeren, Spears, Fischer, & Leach, 2004). To this end, we studied a context in which bullying between children could be seen as involving one set of children ganging up on one or more of their peers, and whether peer group membership provides a basis for resisting bullying.

**Bullying as a social phenomenon**

Bullying has been defined as ‘the systematic abuse of power’ (Smith & Brain, 2000, p. 2), and is encountered by 12% of UK schoolchildren on a regular basis (Smith & Shu, 2000). With the advent of new communications technology a new form of bullying has emerged: cyberbullying. This term was coined by Besley (n.d.) and has been defined as ‘an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a target who cannot easily defend him or herself’ (Smith, Mahdavi, et al., 2008, p. 376). In a recent UK survey, Smith, Mahdavi, et al. (2008) found that 16.7% of their sample had been cyberbullied. Other surveys (e.g., Campbell, 2005) suggest that cyberbullying is increasing in prevalence. The consequences of cyberbullying are thought to be similar to those of conventional bullying. Patchin and Hinduja (2006) report that cyberbullying makes targets feel angry, frustrated, and sad, while Ybarra and Mitchell (2007) concluded that those who bully on-line are more likely to have behavioural problems.

While Atlas and Pepler (1998) found that peers participated in 85% of cases of conventional bullying, the number of peers participating in cyberbullying is likely to be higher still (Li, 2007). Moreover, cyberbullying is a particularly pernicious form of bullying, in that cyberbullies do not have to be physically present in order to aggress, whereas targets of this bullying are less able to avoid such aggression. Li (2006) found that over 50% of his sample were aware of an instance of cyberbullying, but only 30% of respondents who knew that someone was being cyberbullied said that they would inform an adult. Thus, many instances of cyberbullying are known to other children yet remain hidden from adults.

**The social identity approach**

Given the social nature of many bullying episodes, research has begun to focus on the role of group processes in school bullying. Much of this research has used a social identity approach (Tajfel & Turner, 1979) to inform a group-level understanding of the phenomenon (Duffy & Nesdale, 2009; Gini, 2006, 2007; Jones et al., 2008, 2009). Social identity theory (Tajfel & Turner, 1979) posits that part of an individual’s self-concept derives from the social groups to which he or she belongs. People strive to view their own group (in-group) in a positive light, by making comparisons with other groups (out-groups) that favour the in-group. Indeed, Gini (2006) showed that children favoured the
group to which they were told they belonged, even if this was a group described as engaging in bullying.

**Group norms**
Groups are often defined in terms of a set of attitudes and behaviours to which group members are motivated to adhere. These group norms are typical of the group in question, and differentiate it from other groups (Turner, 1999). Peer groups may have norms concerning bullying, and group members are likely to be rewarded for adherence to such norms, or rejected by the group when they fail to adhere to them (Morrison, 2006). Consistent with this argument, Ojala and Nesdale (2004) demonstrated that children understand the need for group members to behave normatively, even if this involves bullying. Sentse, Scholte, Salmivalli, and Voeten (2007) also showed that children who bullied were more likely to be rejected by their peers in a class where bullying was non-normative, but less likely to be rejected by their peers where bullying was a class norm. Cyberbullying provides a useful context for investigating the effect of group norms on bullying behaviour because it is a realm in which children are somewhat removed from the (anti-bullying) norms prescribed by adults (Chisholm, 2006).

**Group identification**
Researchers working in the social identity tradition have argued that the extent to which one identifies with a group influences the intensity of one’s reaction to a group-relevant event (e.g., Yzerbyt, Dumont, Wigboldus, & Gordijn, 2003). The importance of group identification (over and above group membership *per se*) has also been observed in children. For example, Nesdale, Durkin, Maass, and Griffiths (2005) found that children’s ethnic prejudice was positively related to the extent to which they identified with their ethnic in-group.

Group norms and identification are also predicted to have interactive effects. More specifically, the extent to which individuals adhere to group norms should be positively related to the extent to which they identify with the in-group (e.g., Jetten, Spears, & Manstead, 1997). We therefore expected that the effect of group norms on reactions to a ‘cyberbullying’ incident would be moderated by identification with the group.

**Emotions and bullying**
There is growing evidence that interpersonal emotions play a role in the dyadic interaction between perpetrator and target (see Jones *et al.*, 2008). Nevertheless, *group-based* emotions have not attracted much attention in the context of bullying. Group-based emotions are those which take groups rather than individuals as the subject and object of the emotion (Parkinson, Fischer, & Manstead, 2005). Building on self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) and appraisal theories of emotion, intergroup emotion theory (IET; Smith, 1993) focuses on the effect of group categorization on emotional response. IET proposes that the degree to which we define ourselves and others as group members influences (a) whether we experience a given emotion when something happens that affects the group as a whole and (b) the intensity of that emotion (see Iyer & Leach, 2008, for a review). For example, Gordijn, Yzerbyt, Wigboldus, and Dumont (2006) found that participants experienced more group-based anger when a shared identity with the targets of a harmful act was made
salient, compared to when a shared identity with the perpetrators of the act was made salient.

Antecedents of group-based emotions
Mallett and Swim (2007) linked group-based guilt with feelings of in-group responsibility for intergroup inequalities. Group-based anger, on the other hand, has been shown to arise from appraisals of illegitimacy (Smith, Cronin, & Kessler, 2008). Group norms are also likely to shape group-based emotions. For example, pride is likely to be associated with conformity to social norms (Rodriguez-Mosquera, Manstead, & Fischer, 2000) and with responsibility for a positive outcome (e.g., Mascalo & Fischer, 1995), while guilt is likely to be experienced where a behaviour for which the group is held responsible is judged to be negative but is not integrated into the group image (e.g., 'we did a bad thing'). Guilt in turn contrasts with group-based shame, which according to Lickel, Schmader, and Barquissau (2004) is likely to arise when perceivers integrate a negative behaviour into the in-group image (e.g., 'we are bad'). It follows from this that when the behaviour of a group is judged negatively and is norm-consistent, it should lead to shame; however, when the behaviour is judged negatively but is norm-inconsistent, it should be associated with feelings of group-based guilt, because the behaviour is not typical of the group (Jones et al., 2009).

An alternative to the above hypothesis can be derived from reputation management theory (RMT; Emler & Reicher, 1995, 2005). According to this view, people can reframe a 'negative' reputation in positive terms. For example, delinquents are typically seen as 'outsiders' who are opposed to the social order, and may use this delinquent reputation to establish a meaningful and distinct social identity. Thus, highly identified group members who see their group as responsible for a negative, norm consistent behaviour, might not regard that behaviour as something of which to be ashamed. Instead, they may try to live up to a negative reputation when the in-group is responsible for a bullying incident - a case of saying, 'this is who we are and we’re not ashamed'. In a similar vein, Rutland, Abrams, and Cameron (2006) showed that children judged individual in-group members positively or negatively depending upon whether their actions reflected positively or negatively on the group as a whole. It follows that where group members perceive that their group is not responsible for an event, but know that it has a reputation for being responsible for such incidents, they are more likely to display conciliatory emotions. Another aim of the current research was to explore these competing explanations of the role of in-group norms in group-based shame and guilt.

Outcomes of group-based emotions: Action tendencies
A group-based analysis is also informative as to how children react to a bullying incident. Different group-based emotions are associated with different action tendencies (Mackie, Devos, & Smith, 2000; see also Frijda, 1986). Thus, pride leads to a tendency to seek out others, and to talk about one’s achievements (Tracy & Robins, 2004), whereas anger leads to tendencies to act against a harming party (e.g., Mackie et al., 2000). Action tendencies also serve as a basis for distinguishing shame from guilt (Tangney & Dearing, 2002). Shame typically leads to a tendency to distance oneself from the source of one’s shame, whereas guilt typically leads to a tendency to make reparations for the wrongdoing. Jones et al. (2009) showed that pride following a bullying incident was associated with affiliation with a bullying group, whereas guilt was associated with a
propensity to apologize to the target, and anger with a propensity to tell an adult. The present study sought to replicate these findings in the context of cyberbullying.

The present study
We examined the roles of (a) social identity processes and (b) group-based emotions in perceptions of and responses to bullying. Ten- and eleven-year-olds were randomly assigned to one of three group conditions: to the same group as someone later described as engaging in bullying (the perpetrator’s group); to the same group as someone later described as being the target of that bullying (the target’s group); or to a third party group. This age group was chosen because it has been established that bullying is particularly prevalent at this age (e.g., Scheithauer, Hayer, Pettermann, & Jugert, 2006). Children then read one of four scenarios that varied with respect to the gender of the protagonists and the norm of the perpetrator’s group. In the scenario, a perpetrator, supported by his or her group, acts unkindly towards a target, who belongs to a different group, by sending the target an unpleasant text message from the group whilst walking home from school. There were parallel versions of the scenario for females and males, with protagonists being of the same gender as the participants. The norm of the perpetrator’s group (to be either kind or unkind towards others) was also manipulated. Responses to the scenario were measured in terms of the perceived legitimacy of the text message, perceptions of the perpetrator’s group’s responsibility for the message, emotions pertinent to bullying (pride, shame, guilt, and anger), and action tendencies associated with each of these emotions. Each child’s identification with his or her group was also measured.

A model showing the hypothesized relationships between group membership, group norm, identification, and group-based emotions, and between group-based emotions and action tendencies, is shown in Figure 1. We predicted that group membership would affect the group-based emotions experienced by participants, and that these effects would be moderated by the norm of the perpetrator’s group, by participants’ identification with their assigned group, and by their judgments of the legitimacy of, and the perpetrator’s group’s responsibility for, the bullying incident. We also predicted that specific emotions would be associated with specific action tendencies, such that (for example) anger would be associated with a stronger motivation to stop the bullying behaviour.

Method
Participants
After obtaining ethical approval from the School of Psychology’s Ethics Committee, 146 consent forms were sent to parents of Year 6 children (aged 10–11 years) in 5 schools, resulting in a sample of 90 children (36 male and 54 female) whose mean age was 11.09 years (SD = 0.46 years). Children were equally and randomly distributed among the experimental conditions.

Design
The study had a fully between-subjects factorial design, where the two manipulated factors were the norm of the perpetrator’s group in the scenarios (either to be kind or
unkind), and the group membership of the participants (target’s group, perpetrator’s group, or third party group). Children’s gender (male vs. female) was also taken into account. Participants’ identification with their assigned group, the perceived responsibility of the perpetrator’s group, and the perceived (il)legitimacy of the bullying behaviour were measured for inclusion as continuous moderators.

The dependent variables were (a) group-based emotions and (b) action tendencies: to affiliate with the perpetrator, make reparations to the target, distance oneself from the group, and tell an adult what had happened.
**Materials and procedure**

The study was conducted in school classrooms, with one class group at a time, each consisting of between 10 and 32 pupils. A teacher was always present. The session began with an explanation that the researchers were interested in finding out about children’s friendship groups. The three activities involved in the study were then described, and children were reminded that their participation was voluntary.

**Dot estimation task**

Children were randomly allocated to one of the three group membership conditions. This was done using a dot estimation task (Tajfel, Billig, Bundy, & Flament, 1971). Each child was introduced to the activity, and subsequently shown five slides, each displaying between 20 and 100 yellow dots on a blue background. Each slide was presented for 3 seconds in PowerPoint. Participants were asked to record the number of dots they estimated to be on each slide.

Participants were then instructed that their responses to the dot estimation task could be used to place them into one of three groups. The researcher exchanged each participant’s response sheet for one assigning them (in reality, at random) to a particular (gender consistent) group. The sheet also contained information about that group. Membership of each group was indicated by the statement that, ‘Your guesses tended to be too small. Most children in [e.g., child’s name’s group] also tend to make guesses that are too small. [Child’s name’s group] are an [active/fun-loving/bright] group of [girls/boys], who [enjoy listening to music together/watching DVDs together/playing games together]’. The descriptions were devised so as to encourage participants to identify with their group and participants were instructed to keep this information private.

**Practice items**

Each pupil was then given a copy of the relevant gender-consistent questionnaire booklet. Instructions were then read to the children, who proceeded to work through the practice questions. They were then asked to work through the rest of the booklet carefully and quietly. Participants were given approximately 30 minutes to complete the booklet. Some children were assisted in scenario and questionnaire reading, so as not to exclude those with reading difficulties.

**Scenarios**

Children read one of four illustrated scenarios. The scenarios provided information about the groups, about named members of the target’s group, one named member of the perpetrator’s group, one named member of the third party group, and about an incident that could be construed as text-message bullying. Names of the scenario characters were chosen such that no child at the school went by them. Girls received a scenario about a walk home from school made by Melanie’s group, Jenny’s group, and Bess’s group. During this walk, Jenny, supported by other members of her group, sends an unkind text message to a named member of Melanie’s group. Boys received the same scenario, but with ‘Melanie’, ‘Jenny’, and ‘Bess’ replaced by ‘John’, ‘Pete’, and ‘Toby’.

Group norm was manipulated by varying information about the typical behaviour of the group, such that in the kindness norm condition children read: ‘[Perpetrator]’s group. They were usually kind to others’; whereas in the unkindness norm condition
they read: ‘[Perpetrator]’s group. They were the cool group in the school, though they occasionally teased others’. The scenario ended by making it clear that the target was upset. Scenario characters were always described as attending a school similar to the participants’. An example scenario is shown in Appendix.

**Questionnaires**

Before the questionnaire was completed, the researcher highlighted her interest in pupils’ opinions about the story. It was stressed that answers would be kept confidential, and not read by staff at the school. There were two versions of the questionnaire, one for the female scenario, and one for the male scenario. Most items took the form of statements. Unless otherwise stated, children were asked to indicate (by placing a tick) their responses on five-point scales, ranging from 1 (strongly disagree) to 5 (strongly agree).

The first set of items related to the behaviour described in the scenario, starting with manipulation check items relating to the named story characters’ group affiliations (for example: ‘Which group was [Perpetrator] a member of?’) and asking respondents to report their own group membership. There was also a manipulation check concerning the group norm of the perpetrator’s group: ‘The perpetrator’s group is always kind to other children’.

The final paragraph of the scenario, describing the bullying incident, was then repeated. Following this were items calling for judgments of the behaviour, of the intentions of the characters, and whether the behaviour of the named bullying character and of the perpetrator’s group as a group, could be classed as bullying, for example, ‘[Perpetrator] is bullying [Target]’. Among these items was a measure of the responsibility the participant felt the perpetrator’s group had for the incident, ‘[Perpetrator’s group] should be punished for their behaviour’, and a measure of the perceived legitimacy of the group’s behaviour, ‘[Perpetrator group’s] behaviour towards [Target] was fair’. The wording of the items was designed to be accessible to the child participants.

The next set of items concerned participants’ identification with their assigned group, and group-based emotions. This included a six-item ($\alpha = .87$) measure of social identification, based on the work of Barrett et al. (2007), Cameron (2004), and Leach et al. (2008) (e.g., ‘I am happy to be in my group’, ‘It is important to me to be in my group’, ‘I am similar to others in my group’). Group-based emotions (pride, shame, guilt, and anger) were measured on items employing a five-point scale from 1 (not at all) to 5 (very much). Three-item scales were used for each emotion (pride, ‘I [feel proud about/admire/respect] the way [Perpetrator]’s group behaved on the way home’ $\alpha = .86$; shame, ‘I feel [ashamed of / bad about/awful about] the way [perpetrator]’s group behave’ $\alpha = .56$; guilt, ‘I feel [guilty/bad/sorry about the way [perpetrator]’s group] behaved on the way home’, $\alpha = .68$; anger, ‘I feel [angry/annoyed/irritated] about the text message sent to [Target]’, $\alpha = .86$).

A further set of items concerned participants’ action tendencies. Specifically, participants reported what they believed they would have done had they been present when the incident took place. Items included tendencies to apologize ‘I would say sorry to [target]’; to avoid the perpetrator’s group ‘I would keep away from [Perpetrator] and his or her group’; to share pride in the incident ‘I would tell my friends proudly about what [Perpetrator] and his/her friends did’; and to tell an adult ‘I would go and tell an adult what happened’. The final section of the questionnaire asked participants to indicate their age and year group.
At the conclusion of the session, which lasted approximately 45 minutes, participants were debriefed about the research and the reasons for the deception concerning allocation to groups. Any questions that pupils had were addressed by the researchers, and pupils were reminded of positive strategies for dealing with any experiences of bullying. Participants were thanked and received a pencil for their participation, and each participating school received £50 in book vouchers.

Results

Data screening
Prior to analysis, the data were screened for patterns in missing values, for outliers, and for violations of parametric data assumptions. One case had more than 30% of values missing, and this was dropped from all subsequent analyses. To ensure that the (few) univariate outliers were not having a disproportionate influence on the results, they were removed for each relevant analysis. In keeping with the recommendations of Aiken and West (1991), mean-centred scores were used for measured moderator variables.

Comprehension checks
Analyses indicated that 86 children passed the check asking ‘Who sent the nasty text message to [Target]’, correctly identifying the sender of the message, and three children failed to do so. Seventy children passed the check asking ‘Which group is [target] a member of’, correctly identifying which group the target belonged to, and 19 children failed to do so. Further inspection revealed that these children were randomly distributed across experimental conditions, and running analyses with and without children who did not pass this check produced no differences in results. All participants were therefore retained for the main analyses.

Group norm manipulation check
A two-way (group norm × group membership) ANOVA on the norm manipulation check revealed only a significant effect of group norm, $F(1, 87) = 17.75, p < .001, \eta^2_p = .169$. Those in the kindness norm condition perceived the perpetrator’s group to be kinder than those in the unkindness norm condition ($M_s = 2.81$ and $3.85$, $SD_s = 1.33$ and 0.99, respectively).

Was the behaviour seen as bullying?
Children were asked to indicate the extent to which they saw the behaviour of (a) the perpetrator and (b) the perpetrator’s group as bullying. Analysis revealed that 80.90% of participants either agreed or strongly agreed with the statement, ‘[Perpetrator] is bullying [Target]’ while 71.90% either agreed or strongly agreed with the statement ‘[Perpetrator]’s group are bullying [Target]’.

Group-based emotions
We hypothesized that group membership would affect the emotions children experienced when reading the scenarios, and that this effect would be moderated by the
norm of the perpetrator’s group, by children’s level of identification with their assigned
group, and by their perceptions of the responsibility of the perpetrator’s group in
the cases of pride, shame, and guilt, and by their perceptions of the legitimacy of
the bullying incident in the case of anger. To test this hypothesis, each emotion was
submitted to a 3 (group membership: perpetrator’s group, target’s group, third party) \( \times \) 2
(perpetrator’s group norm: kindness or unkindness) \( \times \) responsibility (measured) [or
legitimacy (measured)] \( \times \) identification with assigned group (measured) ANOVA. Mean
scores, standard deviations, and correlations between each of the dependent variables
in the ANOVAs are given in Table 1.

Pride
The only significant effect for pride was a four-way interaction between group mem-
bbership, group norm, identification, and responsibility, \( F(2, 63) = 3.26, p = .046, \eta_p^2 = .094 \). This interaction is illustrated in Figure 2.

Further analysis showed that the three-way interaction between group membership,
group norm, and responsibility was significant only when identification was high
(\( M + 1SD: \) see panels b and d of Figure 2), \( F(2, 63) = 4.12, p = .021, \eta_p^2 = .117 \)
(\( F < 1 \) when identification was low). In turn, the two-way interaction between group
membership and group norm was only significant at high levels of identification when
the perceived responsibility of the perpetrator’s group was low (\( M - 1SD: \) see panel b of
Figure 2), \( F(2, 63) = 4.93, p = .010, \eta_p^2 = .137 \) (\( F = 1.09 \) when responsibility was high).

Simple effects analysis revealed that at high levels of identification and low levels
of responsibility (panel b), the effect of group membership was marginally significant
within the kindness norm condition, \( F(2, 63) = 1.78, p = .053, \eta_p^2 = .119 \). Pairwise
comparisons showed that the difference in estimated means between the perpetrator’s
and the target’s group, in the kindness norm condition, was significant, \( Ms = 2.88 \) and
1.35, respectively, \( SE_{diff} = 0.53, p = .005 \), as was the difference between the perpetrator’s
group and the third party group, \( Ms = 2.88 \) and 1.59, respectively, \( SE_{diff} = 0.53, p = .017 \).

At high levels of identification and responsibility (panel d), the effect of group
membership was marginally significant within the unkindness norm condition, \( F(2, 63) = 3.02, p = .056, \eta_p^2 = .090 \). This was driven by a significant difference between
the estimated means of the perpetrator’s and target’s groups (\( Ms = 2.52 \) and 1.24,
respectively, \( SE_{diff} = 0.52, p = .016 \)). The simple effects of group membership were not
significant when identification was low (panels a and c of Figure 2).

Shame
Significant interactions between group norm and responsibility, \( F(2, 63) = 7.65, p = .007, \eta_p^2 = .110 \), and between group norm, group membership, and identification, \( F(2, 63) = 3.38, p = .048, \eta_p^2 = .093 \), were qualified by a significant four-way interaction
between group membership, group norm, identification, and responsibility, \( F(2, 63) = 3.01, p = .045, \eta_p^2 = .095 \). This interaction is illustrated in Figure 3.

Further analysis showed that the three-way interaction between group membership,
group norm, and responsibility was marginally significant when levels of identification
were high (see panels b and d of Figure 3), \( F(2, 63) = 2.88, p = .064, \eta_p^2 = .085 \),
but not when identification was low, \( F < 1 \). In turn, the two-way interaction between
group membership and group norm was significant at high levels of identification,
Table 1. Mean scores and standard deviations for, and correlations between, main dependent variables

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<td>-.280*</td>
<td>-.051</td>
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<td>-.137</td>
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<td>.217*</td>
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<td>8. Affiliating with perpetrator</td>
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<td>9. Keeping away from perpetrator</td>
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<td>10. Apologize to target</td>
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*p < .01; †p < .001.
Figure 2. Simple effects of the four-way interaction for group-based pride between group membership, group norm, perpetrator’s group responsibility, and identification. The bars represent estimated means at specific levels of perpetrator’s group responsibility and identification.

both when the perceived responsibility of the perpetrator’s group was low (panel b of Figure 3), $F(2, 63) = 3.31, p = .043, \eta^2_p = .097,$ and when the perceived responsibility of the perpetrator’s group was high, $F(2, 63) = 6.24, p = .003, \eta^2_p = .168$ (panel d of Figure 3).

Simple effects analysis showed that where identification was high and responsibility was low (panel b), there was an effect of group membership within the kindness norm condition, $F(2, 63) = 3.07, p = .053, \eta^2_p = .089.$ Shame was lower in the third party group ($M = 3.19$) than in the target’s group ($M = 4.27$), $SE_{diff} = 0.44, p = .016.$ When both identification and responsibility levels were high (panel d), there was a significant effect of group membership within the unkindness norm condition, $F(2, 63) = 2.40, p = .012, \eta^2_p = .129.$ This was driven by significant differences between the perpetrator’s and target’s groups, $Ms = 2.80$ and $4.20,$ respectively, $SE_{diff} = 0.60, p = .022;$ and between the perpetrator’s and third party groups, $Ms = 2.80$ and $4.97,$ respectively, $SE_{diff} = 0.71, p = .003.$ Where identification was low and responsibility was high (panel c), there were no significant effects of group membership.

**Guilt**

There were no significant effects.
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Figure 3. Simple effects of the four-way interaction for group-based shame between group membership, group norm, perpetrator’s group responsibility and identification. The bars represent estimated means at specific levels of perpetrator’s group responsibility and identification.

Anger

There were two significant effects. The first was an interaction between group membership and identification, \( F(2, 60) = 6.95, p = .002, \eta^2_p = .110 \). The association between identification and group-based anger for each group membership is depicted in Figure 4. Simple effects analysis showed that the simple effect of group membership was significant at high, \( F(2, 60) = 5.36, p = .007, \eta^2_p = .152 \), but not at low, \( F(2, 60) = 1.17, p = .318, \eta^2_p = .037 \), levels of identification with the in-group. The effect at high levels of identification occurred because those in the target’s and third party groups were angrier than those in the perpetrator’s group (\( M_s = 5.61, 5.36, \) and \( 2.42, \) respectively).

The differences between the perpetrator’s and target’s groups, \( SE_{diff} = 1.16, p = .008 \), and perpetrator’s and third party groups, \( SE_{diff} = 0.93, p = .003 \), were significant.

There was also a significant three-way interaction between group norm, identification, and perceived legitimacy, \( F(1, 60) = 5.71, p = .020, \eta^2_p = .100 \). This interaction was explored by examining the simple effect of group norm at low and high levels of legitimacy, and at each level of identification. The simple effects are displayed in Figure 5.

Further analysis of the three-way interaction revealed that the two-way interaction between group norm and legitimacy was significant at high, \( F(1, 60) = 5.15, p = .027, \eta^2_p = .079 \), but not at low, \( F(1, 60) = 2.26, p = .138, \eta^2_p = .036 \), levels of identification. Simple effects were then calculated at \( \pm 1 SD \) around the mean legitimacy score at high levels of identification. There was a significant effect of group norm at high levels of
legitimacy (i.e., when the event was perceived as fair) but not at low levels of legitimacy, $F(1, 60) = 3.65, p = .061, \eta^2_p = .057$. The effect of group norm at high levels of legitimacy arose because those in the kindness norm condition were angrier than those in the unkindness norm condition ($M_s = 6.22$ and $2.18$, respectively).

Relations between group-based emotions and action tendencies
In order to determine whether each emotion was the best predictor of its associated action tendency, the action tendency was regressed simultaneously onto the four emotions.

Telling friends about what the perpetrator, and his or her group, did
The model was marginally significant, $F(4, 82) = 2.16, p = .080$, adjusted $R^2 = .051$. Pride was the only significant predictor of this action tendency, $\beta = 0.28, p = .018$.

Keeping away from the perpetrator and his or her group
The model was significant, $F(4, 85) = 15.04, p < .001$, adjusted $R^2 = .324$. Both shame, $\beta = 0.26, p = .014$, and anger, $\beta = 0.36, p < .001$, were predictive of a tendency to keep away from the perpetrator and his or her group.

Saying sorry to the target
The model was significant, $F(4, 82) = 6.26, p < .001$, adjusted $R^2 = .20$. However, anger, $\beta = -0.33, p = .004$, rather than guilt, was the only significant predictor of the tendency to apologize to the target. Repeating the regression with anger removed, $F(3, 84) = 4.32, p = .007$, adjusted $R^2 = .103$, revealed that guilt ($\beta = 0.23, p = .042$) was a significant, positive predictor of this action tendency. No other emotion emerged as a significant predictor in either model.
Figure 5. Simple effects of the three-way interaction for group-based anger between group norm, legitimacy, and identification. The bars represent estimated means at specific levels of legitimacy and group norm.

**Telling an adult about what has happened**

The model was significant, $F(4, 82) = 13.75, p < .001$, adjusted $R^2 = .372$. Anger was the only significant predictor, $\beta = 0.58, p < .001$.

**Discussion**

We examined how children’s reactions to cyberbullying varied as a function of their group membership and their level of identification with that group. Specifically, we tested the hypothesis that group membership would affect the intensity of group-based emotions felt in relation to a bullying incident, and that this effect would be moderated by identification with the group, the norms of the perpetrator’s group, and perceptions of group responsibility (or legitimacy, in the case of anger) for the bullying incident. In turn, it was predicted that different group-based emotions would be associated with different action tendencies in reaction to the bullying incident. Consistent with this hypothesis, the findings show that the extent to which children identified with a peer group membership, in combination with the perpetrator group’s norm and the extent to
which a bullying group was seen as responsible for its behaviour (or the extent to which that behaviour was regarded as legitimate), did affect their responses to a group-level cyberbullying incident. The findings also show links between these responses and what children say they would be inclined to do in response to the incident. The ways in which each of these variables worked together to affect responses to bullying in this study are discussed below.

**Intergroup emotions and action tendencies**

Overall, there was encouraging support for the model shown in Figure 1. There were effects of group membership on emotions experienced by participants, moderated by group norm, identification, and responsibility (or legitimacy). In the cases of group-based pride and shame, the effect of group membership was only significant where identification with one’s group was high. More specifically, for pride, we found a significant four-way interaction of medium magnitude (Cohen, 1988) between group membership, group norm, identification, and responsibility. It is interesting to note that where both identification with one’s assigned group and perceived responsibility of the perpetrator’s group were high (see Figure 2, panel d), there was a significant simple effect of group membership among those in the unkindness norm condition. Under these conditions, perpetrator’s group members felt more group-based pride in the (norm consistent) actions of the perpetrator’s group, compared to target’s group members. Consistent with group-based emotion theorizing (e.g., Smith, 1993), the extent to which participants experienced group-based pride was contingent on the extent to which they identified with their group.

With regard to responsibility, pride among members of the perpetrator’s group in the norm-consistent condition was relatively low when participants in this group perceived little responsibility for the behaviour (see Figure 2, panel b). It is worth noting that under these same conditions perpetrator group members also reported relatively high levels of shame (see Figure 3, panel b). This pattern suggests that under these conditions (high identification with a group with a negative reputation, but which is not seen as responsible for the specific incident), reports of emotion can take on a strategic, communicative function (Parkinson, 1996; Parkinson et al., 2005). This finding seems to be consistent with RMT (Emler & Reicher, 1995, 2005) because reporting relatively low pride and relatively high shame, when the in-group has a negative reputation but is perceived as having low responsibility for the behaviour, can be seen as a conciliatory response, intended to ward off negative reactions on the part of others. If highly identified group members believe that they are not responsible for negative behaviour that could be regarded as ‘typical’ of their group, it might therefore be functional to express low pride and high shame as a way of saying, ‘we might have a bad reputation, but don’t blame or punish us for this specific incident’. In contrast, this is not necessary when the group does not have a negative reputation (reducing the likelihood of being blamed), or when identification is low (reducing the motive to strategically defend the group’s image).

**Shame**

For group-based shame, there was also a significant four-way interaction of medium magnitude between group membership, group norm, identification, and responsibility. As with pride, the interaction between group membership, group norm, and responsibility
was only significant when identification was high. In turn, when identification was high the two-way interaction between group membership and group norm was significant at both high and low levels of responsibility. Indeed, when responsibility and identification were high (see Figure 3, panel d), perpetrator group members in the unkindness norm condition (where the behaviour was norm consistent for perpetrator’s group members) reported less group-based shame than did their counterparts in the target’s and third party groups. This is inconsistent with the argument (see Jones et al., 2008) that group-based shame should be more intensely experienced when (a) the in-group is seen as responsible for a given action, (b) one identifies with the group, and (c) the action is group-defining (as opposed to being a one-off incident). However, this finding can be seen as consistent with RMT, in that children who identified relatively highly with an unkind group, and perceived that the group was responsible for an unkind behaviour reported low shame. This is also consistent with a social creativity strategy for dealing with a negative social identity (Tajfel & Turner, 1979), whereby group members redefine ‘negative’ group-defining characteristics as positive.

**Guilt**
While there was some support for the prediction that guilt would predict the tendency to apologize to the target (see below), there was little support for the predictions made in Figure 1 regarding predictors of guilt. This reflects some of the difficulties and inconsistencies regarding group-based guilt elicitation in the adult literature, where it has been shown that guilt is dependent on a number of situational variables (e.g., source of guilt-inducing information) and has a complex relationship with in-group identification (see Iyer & Leach, 2008, for a consideration of group-based guilt findings). Future research examining group-based guilt in relation to bullying in children will need to take account of contextual factors that may determine whether children are willing to report group-based guilt, in order to deal with the above issues.

**Anger**
In line with our predictions, identification with the in-group affected anger ratings, such that under conditions of high identification those in the perpetrator’s group reported significantly lower anger scores than those of the control group, whereas the target’s group reported significantly higher anger scores than those of the control group. The medium-sized interaction between group norm, legitimacy, and identification was not predicted, but shows that under conditions of high identification and high legitimacy of the bullying incident, those in the unkindness norm condition expressed less anger than did those in the kindness norm condition, regardless of group membership. This effect was not moderated by group membership, suggesting the importance of group norm and legitimacy appraisals for group-level affective reactions to bullying.

**Action tendencies**
For three of the four action tendencies, there was reasonable support for the model depicted in Figure 1 concerning the relations between group-based emotions and action tendencies. Pride uniquely predicted the tendency to affiliate with the perpetrator and his or her group, while anger uniquely predicted the tendency to tell a teacher about the incident. In turn, although shame did not uniquely predict the tendency to
keep away from the perpetrator and his or her group, its zero-order correlation (see Table 1) with this tendency suggests that it does have some predictive value, even though this is not uniquely attributable to shame when other emotions are taken into account. Nevertheless, this finding points to a need to examine other shame-related action tendencies in future research.

Unexpectedly, however, anger was the only unique predictor of the tendency to apologize to the target, even though the bivariate correlation between guilt and this tendency was positive and significant. The result for anger most likely reflects the fact that when seeing one person harm another, one appraises and feels emotions in relation to the perpetrator as well as the target. If one feels guilty about the harm done to the target, then this is also likely to result in anger at the perpetrator, and presumably a desire to apologize on his, her, or the group’s behalf, as a way of emphasizing one’s own disapproval of the act. Thus, anger at the perpetrator may help to explain how guilt translates into an apology. Consistent with this explanation, only guilt (not shame) was a significant predictor of tendencies to apologize when we removed anger from the model.

Social identity processes in bullying

More generally, these findings provide support for the view that social identity processes are involved in bullying. In doing so, they corroborate and extend previous work in this area (Duffy & Nesdale, 2009; Gini, 2006, 2007; Jones et al., 2008, 2009; Ojala & Nesdale, 2004). Specifically, there was evidence of changes in the way that children responded to the scenario, for example in levels of group-based pride, shame, and anger, as a function of their group membership, and the norm of the perpetrator’s group. Moreover, group membership played an important role in interaction with participants’ level of identification with their assigned groups, and with perceived responsibility or legitimacy. However, the notion that group norm would moderate the effect of group membership on group-based emotion, such that guilt would be more likely to be experienced where the behaviour was counter-normative, and shame when the behaviour was normative, was not supported.

The present findings replicate research indicating that, to the extent that individuals share group membership with others, they experience higher levels of emotion in response to a group-relevant target, even if they are not personally affected by that target (e.g., Gordijn et al., 2006; Iyer & Leach, 2008; Yzerbyt et al., 2003). Our study extends this line of work by showing that these findings occur in the context of cyberbullying. The research also sheds some light on how group members respond to individuals from other groups (given that there was a main perpetrator in the scenarios) – an area, which according to Iyer and Leach (2008) is under-researched. In this regard, when high levels of responsibility were attributed to the main perpetrator’s group (and the behaviour was norm-consistent) less shame and more group-based pride are reported. Furthermore, the present research replicates previous findings concerning the links between group-based emotions and action tendencies (e.g., Mallett & Swim, 2007).

Practical implications: Perceiving and resisting bullying among children

Our analysis of group processes in bullying, and the role of emotions in particular, points to potential new ways of tackling bullying behaviour. What is clear is that groups and peer group memberships have an important bearing on what children feel, and
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that these feelings are linked to what children think they would do in response to bullying situations. At one level, groups and social identities can clearly support bullying behaviour. If a group has a norm for unkind behaviour, and acts in accordance with it, greater pride is elicited from group members. Effective intervention might involve encouraging children to question group norms that condone or encourage treating other children badly. In the absence of such a norm, children are less likely to feel pride in actions that hurt another child. Given that there was a strong association between pride and propensity to affiliate with the perpetrator, it might be worth asking children why they might experience a sense of pride if they were part of a peer group when witnessing bullying, and how best to act (or not act) upon this feeling. This indicates the potential usefulness of adaptations of classroom and school-wide interventions (for a review, see Horne, Stoddard, & Bell, 2007) to the level of the peer group, because our evidence suggests that local peer group norms affect children’s group-based emotions, and in turn their propensities for action in such situations - to stop or encourage the bullying.

At another level, however, the present analysis suggests that groups and social identities are as much part of the solution to bullying as they are part of the problem. To the extent that children who are not themselves targets of bullying see themselves as sharing a group membership with the target, they are more likely to feel group-based anger about a bullying incident. Further, this finding suggests that children can work together to surmount bullying. To the extent that children identify with targets of bullying, they will feel group-based emotions that, in turn, lead them to want to put stop to this behaviour, and to support and befriend the target. In line with research on collective action, social identities have the potential to evoke collective reactions that resist bullying (cf. Van Zomeren et al., 2008). This highlights the value of interventions that encourage rather than undermine social identifications among children and promote positive social interactions, such as peer support systems (e.g., Cowie, Naylor, Talamelli, Smith, & Chauhan, 2002; Naylor & Cowie, 1999). These programmes actively train children in mediation techniques and in ‘befriending’ children who are targets of bullying, because friendship has been shown to reduce the likelihood that children will be targeted again (Boulton, Trueeman, Chau, Whiteland, & Amaty, 1999). The present research provides a theoretical and empirical foundation for peer support interventions, invoking the role of emotion, and showing how such schemes might provide a means to resistance of bullying. We also show the flipside of peer group identification - i.e., that low levels of identification with the target are likely to be associated with passive bystandging, which does nothing to support the target, and may even contribute to the perpetrator’s sense of pride.

The present study paves the way for various lines of research examining the group-level factors that underpin bullying. First, having established that children respond in ways consistent with group-based emotion theory using minimal groups, it would be worth investigating group-based emotions in natural groups, for example, in children’s friendship groups. Cyberbullying is particularly pernicious because it is a potentially anonymous route to attacking a target. Anonymity is a factor that has been shown to make social identities associated with groups more salient, a view expressed in the Social Identity model of Deindividuation Effects (Klein, Spears, & Reicher, 2007; Postmes et al., 2000; Reicher, Spears, & Postmes, 1995). The increased salience of social identity, in turn, makes it more likely that individuals will act in accordance with group norms. Thus, predictions from the SIDE model could be investigated as another avenue for future research into cyberbullying. Another point is that although the present study shows that
peer group norms affect responses to bullying behaviour, it does not consider the role of the wider school norms. Given the effectiveness of school-wide interventions (e.g., Cowie et al., 2002), future research could consider what happens when school norms concerning bullying are consistent or inconsistent with peer group norms about what is acceptable.

Conclusions
The findings of this study show the value of a social psychological explanation of bullying. The degree to which children identify with a group membership, in combination with the groups’ norm, the extent to which a bullying group is seen as responsible for its behaviour and the extent to which that behaviour is regarded as legitimate, affect their responses to a cyberbullying incident. The findings also demonstrate the value of examining children’s emotional responses to bullying behaviour by showing the links between these responses and actions children take after witnessing bullying. Bullying at school is an activity often carried out by groups. The likelihood that group members condone or reject the bullying depends on the extent to which they identify with the perpetrators and targets of bullying. These factors shape the emotions children experience when they witness an instance of bullying, and these emotions, in turn, shape the actions that children undertake in the wake of bullying. Thus, while bullying may arise partly as a result of group-level processes, groups and social identities also provide a basis from which it can be resisted and overcome.

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Appendix

Female version of bullying scenario
(Male version available from first author on request).

Please read the following story carefully

‘Here, kitty’, Debbie called to the cat on the wall ahead of her. The cat turned and looked at her before disappearing over the other side of the wall. Debbie shrugged, and carried on walking home.

Debbie went to Lingley Primary School; a small city school in Wales, with one class in each year group. Most children who went to the school lived nearby, and older children usually walked home from school together with their friends.

‘It was fun being in Melanie’s group’

Debbie looked ahead and saw two of her friends; Melanie was one of them. She ran ahead to catch up with them. They turned round and stopped for her. Melanie had her MP3 player with her, and they were taking it in turns to listen to music. They offered the earphones to Debbie. She smiled: it was fun being in Melanie’s group.

Bess’s group were walking home, too, on the other side of the road. They were swapping cards as they walked along, and didn’t see Melanie’s group at all.
Debbie turned round suddenly. Melanie turned off the music and looked behind her, too: Jenny’s group. They were usually kind to others. ‘It’s OK, Debbie, it’s just Jenny’s group’, said Melanie.

**Now please answer this question**

11. Jenny’s group is **unkind** to other children.

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‘Yes, you’re right’, decided Debbie, and they put the music back on again.

Jenny’s group were looking at something together over Jenny’s shoulder as they walked; all three of them.

They all laughed.
Debbie’s ‘phone beeped: a text message. She fished it out of her bag, and read the message;

How r u, Debbie? Who cares?
U r such a loser!

It was from Jenny and her group. Debbie wiped away a tear, and put her ‘phone away quickly. She had hoped things would be alright tonight. Shakily, she said good bye to the others, pushed open her garden gate, and let herself into the empty house. She started to cry to herself.