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Cyber-bystanding in context: A review of the literature on witnesses' responses to cyberbullying

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ABSTRACT

As a form of peer victimisation, cyberbullying can be conceptualised as a group phenomenon; research on cyberbullying should therefore consider all participant roles, rather than focusing solely on perpetrators and victims. Bystanders are of particular interest in both traditional and cyberbullying as they have the potential to amend the situation by intervening, yet most witnesses remain passive. This paper reviews the literature on cyberbullying bystander behaviour, drawing on both quantitative and qualitative studies to identify factors that influence witnesses' responses. It further compares the ability of two theoretical frameworks (the bystander effect and social cognitive theory) to account for and integrate the diverse findings of these studies. Although the bystander effect is the dominant paradigm for explaining bystander inaction in many contexts, social cognitive theory may be better able to capture the complex and contextually dependent nature of cyberbullying situations. This paper concludes by discussing the implications of this approach for future research, and for potential interventions to improve witnesses' responses.

1. Introduction to cyberbullying

The increasing sophistication and availability of technological devices have enabled the extensive integration of communication technologies into the fabric of daily life (Deuze, 2010). While the constant connectedness is in many ways advantageous, particularly with regards to sustaining interpersonal contact, there are some drawbacks. One downside is cyberbullying, which is known to affect mental health and impair academic performance (see Cassidy, Faucher, & Jackson, 2013, for a review), and in extreme cases has been linked with self-harm and suicidal ideation (Schneider, O'Donnell, Stueve, & Coulter, 2012). The extent and potential severity of negative impacts, both on those directly involved and their wider social networks, necessitates a thorough investigation of the phenomenon, moderating factors, and interventions that may reduce the frequency and effects of cyberbullying. This literature review will examine the role of bystanders, who have been largely ignored in previous cyberbullying research. It will further evaluate and compare the bystander effect and social cognitive theory, which are the dominant paradigms used to explain witnesses' responses and peer aggression respectively.

1.1. Definition, prevalence and impact of cyberbullying

Cyberbullying is broadly defined as a repeated, intentional act of aggression carried out through an electronic medium against a victim who is less able to defend themselves (Smith et al., 2008). The affordances of technology allow cyberbullying to take many forms (e.g. insults, threats, embarrassing photos) and to be perpetrated through a variety of media (e.g. texting, email, social networking sites). Though Smith et al. (2008) definition is the most widely accepted, scholars remain in disagreement over several aspects of it: in particular, whether acts need to be repeated in order to qualify as cyberbullying as they do for traditional bullying (Nocentini et al., 2010; DeSmet et al., 2014), and whether the impact on the victim should be taken into consideration (Menesini et al., 2012; Dredge, Gleeson, & de la Piedad Garcia, 2014). Estimates of prevalence consequently vary according to the strictness of definitional criteria and the time period assessed. However, most studies tend to report victimisation rates of around 20–40% (Tokunaga, 2010), although rates have ranged as widely as 4–57% (Dehue, 2013).

These high prevalence rates are particularly concerning due to the extensive and enduring effects of cyberbullying on those who are victimised (see Cassidy et al., 2013, for a review). Furthermore, the consequences of cyberbullying extend beyond the immediate victims: those who witness online aggression may come to believe it is normative and acceptable (Kowalski, 2008; Kowalski, Giumetti, Schroeder, & Lattanner, 2014); schools that do not adequately address cyberbullying are perceived as less safe, and even cyberbullies themselves appear to

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be negatively affected (Cassidy et al., 2013). As cyberbullying is a relatively recent phenomenon, researchers have drawn on the extensive literature of traditional bullying research in their attempt to understand cyberbullying. Consequently, researchers have examined the similarities and differences between the two types of bullying to ascertain whether our understanding and models of traditional bullying can be applied to online interactions.

1.2. Relation to traditional bullying

Many researchers have conceptualised cyberbullying as the extension of traditional bullying to electronic media (e.g. Williams & Guerra, 2007; Hinduja & Patchin, 2008), and indeed the two forms of victimisation show many similarities. Both involve the intentional harm of a victim who is less able to defend themselves (Olweus, 1993; Smith et al., 2008); additionally, sources and targets typically know each other in real life (Cassidy et al., 2013). However, cyberbullying is arguably distinct from traditional bullying in several ways. In particular, it is possible for bullies to remain anonymous (Cassidy et al., 2013); it is more pervasive as it does not require those involved to be physically co-present (Bastiaensens et al., 2015), meaning victims can potentially be affected at any time or place; and it is more difficult for adults to detect and police, as privacy and account settings often exclude them from the online arena where cyberbullying occurs (Dooley, Pyzalksi, & Cross, 2009; Cassidy et al., 2013). Despite their differences, both cyber- and traditional bullying are forms of peer aggression that often occur within established social contexts. Therefore, in order to effectively address the problem of cyberbullying, researchers must consider the broader school community and explore the different roles individuals can take in cyberbullying incidents. They should further explore the factors motivating choice of roles and actions, and methods by which these factors might be manipulated to encourage pro-social online behaviour.

Although it is frequently oversimplified as a bully-victim dyadic interaction, peer victimisation can be better conceptualised as a group phenomenon involving multiple individuals interacting in a range of roles. These roles tend to be broadly categorised as bullies, victims, and bystanders; however, Olweus (1993) argues for the existence of eight roles, at least in traditional bullying: bullies, followers, passive supporters, supporters, onlookers, possible defenders, actual defenders, and victims. These roles may be further complicated in cyberbullying, as individuals may become bystanders in various ways. In traditional bullying, bystanders are immediately physically present; cyberbullying bystanders may witness the cyberbullying online as it occurs, or after the incident ends. Alternatively, they may be with the perpetrator or victim when the message is sent or received, or they may have the message forwarded to them by others (Li, Smith, & Cross, 2012). DeSmet et al. (2014) further note that the roles involved in cyberbullying, particularly those of bystanders, are far more fluid and contextually dependent than in traditional bullying. For example, 8% of the Belgian students surveyed by Van Cleemput, Vandebosch, and Pabian (2014) had performed multiple roles within the same incident of cyberbullying.

The roles of bully and victim have both been extensively explored in the cyberbullying literature: bullies as the immediate origin of the anti-social behaviour; and victims as those suffering the greatest impact as a consequence (Cassidy et al., 2013). However, limiting research to these participant roles obscures the potential influence of bystanders and the wider school community who are likely to have a significant role in shaping the occurrence and course of cyberbullying incidents (as in traditional bullying; Polanin, Espelage, & Pigott, 2012; Vreeman & Carroll, 2007). Research on cyberbullying and interventions would benefit from turning to the role of bystanders, who are known to be critical in bullying interventions, yet who have been largely overlooked in cyberbullying research.

1.3. Bystanders of cyberbullying: prevalence and roles

Bystanders may prove to be even more critical to the course of cyberbullying than in traditional bullying, due to their sheer number and presence. Whereas cyberbullying perpetration and victimisation rates tend to be around 5–20% (Bastiaensens et al., 2014; Dehue, Bolman, & Völlink, 2008; Van Cleemput et al., 2014) and 20–40% (Tokunaga, 2010) respectively, Lenhart et al. (2011) found that 88% of US teens had witnessed incidents of cyberbullying on social media alone. These individuals are considered to be crucial in addressing (or conversely, encouraging) cyberbullying, as their actions may alter the course and effects of incidents in a number of ways. For example, bystanders may intervene in support of victims, either directly (by confronting the bully or comforting the victim) or indirectly (by reporting the incident to adults; DeSmet et al., 2012). In doing so, they may threaten the bully's status and make them stop, as well as ameliorating the negative effects on victims (Bastiaensens et al., 2015; Salmivalli, 2010). Individuals who publicly intervene also increase the likelihood that other bystanders will do likewise, by modelling dissenting behaviour (Anderson, Bresnahan, & Musatics, 2014). Conversely, bystanders may encourage the cyberbully or join in with the victimisation, which may make the bully more aggressive and exacerbate the negative impact on the victim (Bastiaensens et al., 2014).

Despite their potential influence, most bystanders remain passive when they witness cyberbullying: Lenhart et al. (2011) survey of US teenagers found that 91% of those who had witnessed cyberbullying on social media had ignored it at some point. Similarly, Van Cleemput et al. (2014) survey of Belgian students found that 58.6% had remained passive, while Huang and Chou's (2010) survey of Taiwanese high school students also found inaction to be the predominant response. These rates have been replicated experimentally, with 50–90% of participants failing to intervene at some stage in response to various cyberbullying paradigms (Dillon & Bushman, 2015; Freis & Gurung, 2013; Shultz, Heilman, & Hart, 2014). This inaction is of particular concern as bystanders may not necessarily condone the bullying, but bullies may perceive their lack of intervention as tacit approval of their actions (Bastiaensens et al., 2014).

2. The bystander effect

The failure of bystanders to take action is perhaps not entirely unexpected. Indeed, the phenomenon of bystander inaction has been recognised and explored since 1968, when Darley and Latané published their seminal paper on the bystander effect: the phenomenon whereby individuals are less likely to offer help if other passive bystanders are present. These authors proposed that if bystanders are to intervene, they must first: (1) notice the situation; (2) recognise the need for assistance; (3) feel personally responsible; (4) believe they are able to help; and (5) consciously decide to intervene (Latané & Darley, 1970). However, three key processes often interfere with this progression, deterring bystanders from intervening. The presence of others may decrease the personal feeling of responsibility experienced by each individual present (*diffusion of responsibility*); it may make individuals self-conscious, as other bystanders may judge their actions (*evaluation apprehension*); or individuals may witness the inaction of others and conclude that no action is required (*pluralistic ignorance*; Darley & Latané, 1968; Latané & Darley, 1970). The bystander effect has been consistently and robustly replicated in a variety of contexts (see Fischer et al., 2011, for a review). However, a relatively small number of studies have examined whether the bystander effect can be replicated online, especially in the context of cyberbullying.

2.1. The online bystander effect

The few studies that have empirically tested the bystander effect online have been largely confined to the attempted replication of the

classic effect in an online setting. For example, Markey (2000) conducted the first online study of the bystander effect by making repeated requests for help in pre-existing Internet chat-rooms. The results confirmed that individuals were slower to help when other bystanders were present, although requesting help from a specific (named) participant produced the fastest response, independent of how many others were present. Similar results have been obtained in other online settings, namely requests for help sent via email (Barron & Yechiam, 2002; Blair, Foster Thompson, & Wuensch, 2005) or posted in public discussion groups (Voelpel, Eckhoff, & Förster, 2008). In the case of Barron and Yechiam's (2002) study, it was found that email requests which were sent to only one recipient were more likely to elicit a response than those sent to five recipients, and these responses tended to be longer and more helpful. Likewise, Blair et al. (2005) found that the probability of receiving a response to an email request declined as the number of recipients increased, while Voelpel et al. (2008) found that discussion groups containing over 100 members were significantly less likely to respond to requests for help than smaller groups.

The results from these online bystander studies did not, however, completely replicate the traditional bystander effect. Interestingly, in both Blair et al. (2005) and Voelpel et al. (2008) studies, the likelihood of receiving a response did not decline linearly as group size increased. Blair et al. (2005) found that this relationship followed a hyperbolic curve: the likelihood of receiving a response decreased substantially when the number of recipients increased from one to two, and from two to fifteen, but there was little change when the number of recipients increased from fifteen to fifty. By contrast, Voelpel et al. (2008) found that larger groups (with over 250 members) were actually more likely to respond than medium sized groups (with 100–250 members), which they hypothesised was due to the presence of "perpetual helpers" (p. 286) who feel a heightened sense of responsibility to assist, and who are more likely to be present in larger groups. Lastly, Lewis, Foster Thompson, Wuensch, Grossnickle, and Cope (2004) found no evidence to support the bystander effect within their email request paradigm, with response rates virtually equal when the request was made of 1, 2, 15 or 50 individuals.

The failure to consistently replicate the bystander effect online is puzzling, given the apparent robustness of the phenomenon offline (Fischer et al., 2011). It is possible that these inconsistencies are due to fundamental differences in online and offline communication. Specifically, those studies which returned inconsistent results used asynchronous communication media, namely email requests and online discussion groups (Barron & Yechiam, 2002; Blair et al., 2005; Lewis et al., 2004; Voelpel et al., 2008). In contrast to real life tests of the bystander effect, where individuals are immediately present in witnessing the scenario (temporally, if not always physically), in online settings bystanders may only witness the scenario after it has played out. As such, the cyber-bystanders may reason that they are too late and that the individual requesting help has resolved the situation themselves, and therefore conclude that their assistance is no longer required.

This may be particularly relevant to the previously discussed studies: their requests for help tended to be very basic enquiries (e.g. does this institution have a biology department?; Barron & Yechiam, 2002), the answers to which were likely already available online. This issue is likely to affect all bystanders equally, regardless of how many have received the request for help. In the case of larger groups however, the sheer number of bystanders may make it more likely that someone will see the message soon after it was posted and feel compelled to respond. This may counter the diffusion of responsibility expected in large groups: that is, it is possible that the bystander effect holds in online settings, but is obscured by other effects related to the asynchronous nature of communication. However, it must be noted that this account is speculative; further research must be conducted to untangle the potential explanations for inconsistencies in the bystander effect online.

An alternative explanation for the mixed findings involves the number of bystanders involved in each study, which was typically far higher in online than in offline studies. In the most extreme case, Voelpel et al. (2008) largest discussion group comprised 10,523 members; other studies using the email request paradigms included up to 50 recipients (Blair et al., 2005; Lewis et al., 2004). In contrast, almost all the attempts to replicate the bystander effect offline have used between one and four bystanders (Fischer et al., 2011). It is not unreasonable to suspect that increasing the number of bystanders can only inhibit helping behaviour to a certain extent, beyond which additional bystanders simply do not have any further impact. This is consistent with Blair et al. (2005) findings, which suggest that while the presence of more bystanders did further inhibit helping, they did so with diminishing effect.

Even given the potentially universal visibility of content posted to the internet, these numbers are considered large. As part of an experimental manipulation check, Obermaier, Fawzi, and Koch (2014) asked participants to subjectively assess the (clearly indicated) number of bystanders present in a scenario on a five-point Likert scale from 1 (*rather few*) to 5 (*rather many*). The results revealed that 24 bystanders was already considered relatively many ($M = 3.53$), with 224 bystanders ($M = 4.30$) and 5025 bystanders ($M = 4.67$) seeming almost excessive by comparison. While these numbers may indeed reflect typical sizes of online groups (Obermaier et al., 2014), they may still be difficult for individuals to comprehend in terms of their implications for social interactions. As such, the failure to consistently replicate the bystander effect online may be more reflective of the extreme number of bystanders used than of the nature of online interactions.

Further complicating this issue, the paradigms used in previous studies largely imply the presence of bystanders, compared to offline studies in which bystanders' presence is "evidenced" by their physical visibility, speech, or experimenters' testimony (Fischer et al., 2011). While the naturalistic online studies quantified the number of bystanders present as the number of members of a discussion group (Voelpel et al., 2008), users logged on to a chat room (Markey, 2000), or recipients of an email (Barron & Yechiam, 2002; Blair et al., 2005; Lewis et al., 2004), it was never established whether these bystanders actually witnessed the experimental manipulation. That is, most studies did not attempt to determine whether their bystanders received and read the request for help, and those that did were largely unsuccessful (see Lewis et al., 2004, for a discussion of the unreliability of read reports in determining actual numbers of witnesses). Although this is realistic in that it is difficult to conclusively determine how many people have viewed online materials, the fact that these studies were conducted in naturalistic settings- making use of pre-existing groups and participants who were unaware that they were taking part in a study- also makes it difficult to determine how many of the potential participants viewed the request for help.

Moreover, the objective number of bystanders present may not affect all groups equally. In some cases this may contribute to the hypothesised bystander effect- for example, larger online communities (e.g. chat rooms, discussion groups) are likely to have a higher volume of posts. This may mean that requests for help are more easily obscured by new content, decreasing the likelihood of receiving a response despite the increased number of potential helpers. Alternatively, larger online communities may spontaneously form social hierarchies and self-impose structure- for example, by appointing moderators or recognising regular contributors who become responsible for monitoring and regulating online interactions. In this way, norms and standards may be established for responding to requests for help or resolving hostile situations. This may become the responsibility of those who the community have designated as powerful (e.g. moderators) or popular (e.g. regular contributors), or even those who feel personally responsible for assisting (such as the "perpetual helpers" proposed by Voelpel et al., 2008). These dynamics may prove to be influential in determining the response to requests for help in established online communities; furthermore, their influence may extend to established offline communities which also interact online, such as school-based peer groups. However, researchers so far have not probed the extent to which

these communities function and self-regulate. Furthermore, no attempts have been made to explore Voelpel et al. (2008) idea of individuals who feel more personally responsible for helping, and who may consequently intervene more frequently.

2.2. Cyberbullying and the bystander effect

Despite difficulties in replicating the bystander effect online using paradigms involving requests for help, researchers have continued to argue for its potential application to bystanders of cyberbullying. Incidents of cyberbullying differ from these experimental manipulations in several ways. Most notably, those who are involved in or witness cyberbullying often know each other in real life, and thus their responses to these incidents frequently have consequences for their offline interactions and relationships (DeSmet et al., 2012; Macháčková, Dedkova, Sevcikova, & Cerna, 2013). Additionally, these incidents are typically more severe and explicitly involve perpetrators, both of which are known to affect bystander responses (Fischer et al., 2011). Thus, it is possible that the bystander effect may be more robustly replicated online, within the cyberbullying context.

Obermaier et al. (2014) were the first to test the bystander effect in the context of cyberbullying, using a Facebook paradigm. Participants were presented with a screenshot depicting a post made on the wall of a university Facebook group: the original post made a request for lecture notes, to which another group member responded by insulting the victim, calling them names and inviting other group members to complain about them. The number of bystanders was manipulated by indicating that the post had been "seen by 2", "seen by 24", "seen by 224" or "seen by 5025" members. The results indicated that the number of bystanders did not directly affect individuals' intention to intervene; however, there was an indirect effect on intention to intervene, mediated by the individuals' feeling of responsibility. Specifically, individuals felt more personally responsible when fewer other bystanders were present, and were subsequently more likely to intervene, which is consistent with the traditional bystander effect (Darley & Latané, 1968).

However, it is important to note that Obermaier et al. (2014) conclusions were drawn from a comparison of the "seen by 2" and "seen by 5025" conditions. As with the previously discussed email request paradigms (Blair et al., 2005; Voelpel et al., 2008), the probability of intervention did not decline linearly as the number of bystanders increased. Furthermore, 20–40% of Obermaier et al. (2014) sample was unable to recall the number of bystanders with any degree of accuracy, and were subsequently excluded from the analysis; this suggests that a substantial proportion of individuals may not even consciously consider whether others are present when determining how to respond. These findings are supported by a replication of Obermaier et al. (2014) study using participants who had previously witnessed cyberbullying incidents. In Macháčková, Dedkova and Mezulanikova's (2015) study, individuals reported providing more support to victims when there were "just a few (i.e. 1 or 2)" bystanders, relative to when there were "a bit more (i.e. 3–10)" or "a lot (i.e. more than 10)". Again, there was no linear effect of the number of bystanders, suggesting that the presence of bystanders does not consistently affect witnesses' responses.

Although the bystander effect itself has not been consistently replicated in online studies, the mechanisms proposed to give rise to the phenomenon may still be useful in explaining the inaction of cyberbystanders. Few studies have directly investigated the bystander effect with reference to this five-step process. However, researchers who are interested in the behaviour of cyberbullying bystanders have conducted qualitative studies which ask participants how they responded to incidents they have witnessed, probing the reasons behind their reactions (or inactions). These studies have uncovered reasons for bystander inaction which can be loosely mapped to these steps, as well as the three deterrents originally proposed by Darley and Latané (1968, 1970): diffusion of responsibility, evaluation apprehension, and pluralistic ignorance. Additionally, the studies have surveyed adolescent populations in Belgium (DeSmet et al., 2012, 2014; Van Cleemput et al., 2014), Australia (Dredge et al., 2014; Price et al., 2014), Taiwan (Huang & Chou, 2010) and Czechoslovakia (Macháčková et al., 2013), suggesting potential cross-cultural relevance of their findings.

2.2.1. What just happened? Noticing cyberbullying amidst online distractions

The nature of mediated space means that while individuals may be exposed to instances of cyberbullying, they may not be consciously aware of them. In particular, users' tendencies to multitask when using electronic devices may prevent them from noticing cyberbullying incidents. This phenomenon is not unique to online spaces- reviews of bystander studies by Latané and Nida (1981) and Fischer et al. (2011) identified that obstructed views, loud noises, crowded environments and multi-tasking can prevent bystanders from noticing potential emergency situations. Dillon and Bushman (2015) tested this first step of the bystander intervention model in the context of cyberbullying. Unsurprisingly, participants who noticed the staged incident of cyberbullying were more likely to intervene, either directly or indirectly. However, the addition of medium-specific distractions (streaming music, visual pop-ups, and a timer countdown) did not significantly affect participants' likelihood of noticing the incident. Thus, while preliminary evidence suggests the relevance of the first step of the bystander model to cyberbullying, distractions may not be as problematic as originally predicted.

2.2.2. Is this an emergency? Pluralistic ignorance and incident severity

Pluralistic ignorance is described by Darley and Latané (1968, 1970) as the tendency for individuals to rely on other bystanders' reactions to decide whether intervention is necessary. It is also implicated in bystanders' decision to respond. Cyberbullying studies investigating this phenomenon tend to take the opposite approach, however. For example, Anderson et al. (2014) noted that modelling dissent increased the likelihood that bystanders would intervene in defence of the victim. Conversely, those who saw only the original cyberbullying post *without* any evidence of other bystanders' reactions were less likely to intervene. A series of studies conducted by Bastiaensens et al. (2014, 2015) found that individuals were influenced by the actions of others, and particularly close friends, when deciding how to respond; however, the "bystanders" in these situations were always active, in either reinforcing the bully or defending the victim. Nevertheless, individuals were more likely to defend when other bystanders did so, and similarly more likely to join in with the bullying if other bystanders had done likewise.

By comparison, situational ambiguity is far more frequently mentioned as a factor influencing bystanders' decisions to intervene. Smith (2012) notes that cyberbullying situations may be particularly ambiguous, as the online context means that victims' reactions are not immediately visible, and can be self-censored. Many adolescents report uncertainty over whether incidents that they witness online qualify as cyberbullying, and whether intervention is required (Holfeld, 2014). Similarly, Shultz et al. (2014) sample of college students noted that they would need more information about the participants involved before they could adequately respond; in the absence of this information, they elected to remain passive. In contrast, more severe (and thus less ambiguous) incidents of cyberbullying were more likely to elicit interventions, as bystanders were more likely to assess the situation as an emergency which required their help (Obermaier et al., 2014; Patterson, Allan, & Cross, 2015). Likewise, direct requests for help from the victim appear to cut through the ambiguity of cyberbullying situations, clarifying the need for help and countering the diffusion of responsibility, and thereby increasing the chance of bystander intervention (Macháčková et al., 2013).

2.2.3. Who is responsible for intervening? Diffusion and deflection of responsibility

Darley and Latané (1968, 1970) originally described how the presence of other bystanders may reduce the personal sense of responsibility felt by each individual, as if the responsibility had been divided amongst those present. Qualitative studies have evidenced that passive bystanders typically report feeling less responsible for intervening: adolescents have explicitly reported remaining passive because they perceived the incident as being none of their business (Huang & Chou, 2010; Van Cleemput et al., 2014). Interestingly, it appears that cyberbystanders attribute the burden of responding to specific others, rather than the group as a whole. For example, it was often reported that popular or strong students should be responsible for defending others; those who failed to do so were labelled cowardly (DeSmet et al., 2014; Price et al., 2014). Some participants also suggested that the victims' friends should defend them (DeSmet et al., 2012; Macháčková et al., 2013) - indeed, some considered this to be inherently and inextricably part of the definition of friendship (Price et al., 2014). However, others seemed to suggest that even failing to actively defend one's friends is understandable, because "everyone understands defending is difficult" (DeSmet et al., 2012, p. 61). Despite this, a quantitative follow-up study by DeSmet et al. (2016) found that friendship with victims was one of the strongest predictors of intervention.

Furthermore, these deliberate divestments of responsibility are not limited to the responsibility to intervene, but also extend to perceptions of who is responsible for the cyberbullying incident itself. Cyberbystanders commonly report classes of victims whose harassment is rationalised and considered deserved- typically those who are unpopular, or who are targeted because of their "strange" behaviour (DeSmet et al., 2012). This is supported by empirical evidence: Schacter, Greenberg, and Juvonen (2016) noted that bystanders blamed and had less empathy for hypothetical cyberbullying victims who disclosed highly personal information online, and were subsequently less likely to intervene in their defence. More generally, Holfeld (2014) found that when North American middle school students viewed a (fake) example of a cyberbullying incident, 67% of males and 54% of females made internal causal attributions for the episode. Of these, approximately 30% assumed that the victim had provoked the attack through their behaviour or actions. Furthermore, those victims who were reported to have ignored the cyberbullying were perceived as being significantly more in control, and subsequently blamed more, than victims who appeared to have reported or confronted the bullies (Holfeld, 2014). Thus, blaming the victim for provoking cyberbullies appears to allow bystanders to dispel their responsibility for the situation, excusing their lack of intervention.

2.2.4. Can I help? Evaluation apprehension and self-efficacy

Bystanders may also be reluctant to intervene because they fear judgement from other witnesses (Darley & Latané, 1968; Latané & Darley, 1970), especially online, as any public intervention may be immortalised and permanently preserved as part of the cyberbullying narrative (Dillon & Bushman, 2015). This fear of potential judgement is likely to be heightened in instances of peer aggression and cyberbullying; as previously discussed, those who witness or are involved in cyberbullying commonly interact in real life, and thus online encounters can have offline implications (DeSmet et al., 2012; Macháčková et al., 2013; Teachman & Allen, 2007). Adolescents have previously indicated that the identities of the bully and other bystanders are critical in shaping their responses to incidents of cyberbullying, because of the potential for retaliation and judgement for deviating from the passive norm. For example, the Belgian high-school students interviewed by DeSmet et al. (2012) reported that they would be less likely to intervene if the cyberbully was popular, as they would be less likely to receive support from their fellow bystanders and more likely to face social consequences for their actions. Similarly, both Macháčková et al. (2013) and Patterson et al. (2015) participants noted that they felt obliged to support friends who were cyberbullying others; speaking out would risk offending the bully and damaging the friendship. Olenik-Shemesh, Heiman, and Eden (2015) further note that bystanders with higher levels of social support and lower levels of loneliness tend to report more frequent intervention in cyberbullying incidents.

Studies conducted in Belgium and Taiwan suggest that the identity of other bystanders, and the cultural values and norms of the community, may further influence individuals' response to the incidents of cyberbullying that they witness. As in Macháčková et al. (2013) study, Bastiaensens et al. (2014) noted that students took cues from their friends when deciding how to respond. In some cases this was interpreted as the fear of threatening the relationship; for example, individuals were less likely to intervene if other bystanders were seen to join in with the bullying, especially if those bystanders were close friends. In other cases, the other bystanders appeared to protect against the consequences of the evaluative threat: in more severe incidents of cyberbullying, individuals were more likely to intervene when the other (passive) bystanders were close friends, as they could be a source of support. Huang and Chou (2010) further note that culture may influence how evaluation apprehension is manifested. They suggest that in collectivist cultures, *any* intervention (regardless of the target and intent) would conflict with the communal values of security and harmony, which give rise to norms of passivity and indirect aggression. This may also explain why intervention in cyberbullying has been observed to decrease with age; as Van Cleemput et al. (2014) note, older adolescents tend to be more conscious about fitting in with their peer group.[1] Therefore, evaluation apprehension may function differently within the cyberbullying context, as the familiarity of participants may heighten the potential consequences of intervening.

Bystanders may also fail to intervene because they lack the self-efficacy to respond. Self-efficacy describes the individual's belief in their ability to successfully execute a particular action (Bandura, 1986, 1997). That is, individuals identify the need for intervention in cyberbullying situations and feel personally responsible for helping, but believe they lack the skills to assist effectively. Self-efficacy for defending is known to be positively associated with defending victims and negatively associated with passive responses to *traditional* bullying (Barchia & Bussey, 2011b; Thornberg & Jungert, 2013). Preliminary evidence from cyberbullying research has indicated that individuals who have positive outcome expectancies (presumably indicative of confidence in their ability to help) are more likely to intervene (DeSmet et al., 2016). Furthermore, qualitative research has provided supporting evidence for the influence of self-efficacy on intervention in cyberbullying. Interestingly, these findings suggest that defender self-efficacy may not be a uni-dimensional construct. The results of DeSmet et al. (2012) focus groups suggest that participants were most confident about their ability to support or advise victims, but were less certain about confronting bullies and notifying their parents about witnessed incidents. Thus, self-efficacy beliefs might influence both whether and *how* witnesses of cyberbullying choose to intervene.

2.2.5. Enacting the intervention: explanatory power of bystander response theory

Darley and Latané's (1968, 1970) five-step bystander response paradigm, together with the three mechanisms which they identified as obstructing intervention, form a coherent and logical framework through which the inaction of cyberbullying bystanders can be explored. Many of the qualitative and quantitative findings of research in this field can be integrated into and understood through this framework, even if the bystander effect itself is not always replicated online. The theory is also able to incorporate situational and relational factors

[1] Intervention in traditional bullying is known to decrease with age (e.g. Menesini et al., 1997), although studies of cyberbullying bystanders have not always replicated this finding (e.g. Macháčková et al., 2013).

that are integral to understanding behaviour that occurs within established social networks, as is often the case with cyberbullying. However, bystander response theory does not account for other responses that witnesses may have to cyberbullying incidents; while it may explain various forms of defending and helping, as well as inaction, it does not explain the behaviour of individuals who join in and support the cyberbullies. Additionally, the framework tends to focus on isolated incidents and static factors that influence responses, forming somewhat of a snapshot of a peer group at a given moment. This does not take into account many of the dynamic processes that occur within the peer group; processes by which norms are formed and reformed, through which witnesses' responses to past instances of cyberbullying may shape their peers' responses to subsequent incidents.

3. Social cognitive theory and morality

The themes identified through qualitative research with bystanders of cyberbullying may map to the mechanisms proposed to underlie the bystander effect; however other, broader theories of morality may also be able to account for the responses of cyberbullying witnesses. In particular, research on cyberbullying bystander inaction may benefit from established theories of morality that extend beyond the specific bystanding situation, considering broader and more interactive influences on actions. This is exemplified by Bandura's (1971, 1986) social cognitive theory, which proposes a triadic structure in which personal, behavioural and environmental factors reciprocally influence each other. These three elements further interact with social and cultural influences to shape the individual's development. In applying this theory to moral behaviour, Bandura (1986, 1990, 1991) proposed that individuals develop moral standards which emerge from and are refined through their interactions with others. These standards are used to guide subsequent actions- behaviour that complies with these standards increases satisfaction and self-esteem, while violations invoke self-condemnation in the form of guilt and shame. Moral standards and emotions may influence individuals' behaviours in their own right. For example, Perren and Gutzwiller-Helfenfinger's (2012) study of German-speaking adolescents found that having lower levels of moral standards and emotions predicted cyberbullying. However, more attention has been directed to how individuals with sound moral standards may act immorally (or fail to act morally). The apparent failure of moral standards to motivate moral behaviour may be mediated by the individual's cognitions and beliefs, specifically their use of moral disengagement mechanisms and perceived self-efficacy.

3.1. Moral disengagement

Behaviour that conflicts with an individual's moral standards may be allowed or excused through the use of moral disengagement (MD) mechanisms, which enable individuals to selectively avoid the consequences of self-regulation. Bandura (1986, 1990) details eight mechanisms, which fall into four clusters. Behaviours may be framed more positively through *cognitive restructuring*: by providing reasons that justify their actions (moral justification); by comparing their actions to more serious behaviours (advantageous comparison); or by describing their behaviour in more innocuous or understated terms (euphemistic labelling). Individuals may *downplay their responsibility* for their actions if they are acting as part of a larger group (diffusion of responsibility) or can claim to have been pressured by others (displacement of responsibility). They may also *downplay the effects* of their actions (distortion of consequences), thereby avoiding the need to invoke moral sanctions. Lastly, actions may be portrayed as being *evoked by the victim*, either directly by claiming provocation (attribution of blame), or indirectly by denying their humanity (dehumanisation). As such, MD may influence responses to witnessed instances of peer aggression, by allowing bystanders to excuse or justify their inaction.

The relevance of MD to cyberbullying bystanders has been previously identified in qualitative research. DeSmet, Van Cleemput and colleagues (DeSmet et al., 2012, 2014; Van Cleemput et al., 2014) have noted that the reasons adolescents give for not intervening in cyberbullying are also indicative of MD mechanisms, such as attribution of blame, diffusion of responsibility and dehumanisation. Indeed, the findings from their qualitative studies are perhaps more coherently interpreted within Bandura's social cognitive theory of morality, compared to the framework of the bystander effect. There is particularly strong evidence for mechanisms that attribute blame to victims of cyberbullying. For example, participants spontaneously conclude that incidents of cyberbullying are caused or prolonged by victims' attributes or behaviour (Holfeld, 2014). Similarly, DeSmet et al. (2012) participants identified peers who they considered deserving of victimisation-namely “loners”, whose behaviour apparently excluded them from humane treatment. Likewise, adolescents frequently report the displacement of responsibility for intervening, as they claim that this duty falls to more popular peers (DeSmet et al., 2014) or the friends of the victims (DeSmet et al., 2012; Macháčková et al., 2013; Price et al., 2014), or simply deny that they are personally responsible (Huang & Chou, 2010; Van Cleemput et al., 2014).

Those surveyed also alluded to mechanisms that downplayed or underestimated the severity and impact of cyberbullying incidents. This is most evident in participants who claimed cyberbullying was “no big deal” (Huang & Chou, 2010, p. 1588), which allowed intervention to be reframed as an unnecessary and unwelcome imposition (Huang & Chou, 2010; Bastiaensens et al., 2014). However, the effectiveness of this mechanism may be limited when objective indications of severity are present (Bastiaensens et al., 2014; DeSmet et al., 2014). Other mechanisms may manifest differently in different communities and cultures. For example, while participants from multiple cultures referenced the use of the moral justification mechanism, Huang and Chou's (2010) Taiwanese participants justified their inaction in terms of abiding by cultural values of cohesiveness and harmony. In contrast, European adolescents appeared more concerned about the consequences of inaction for themselves and their immediate friendships (DeSmet et al., 2012; Macháčková et al., 2013). Thus, previous qualitative research seems to suggest the relevance of MD mechanisms to cyberbullying bystander inaction.

The role of MD may also be easier to quantify and empirically test than the three mechanisms of the bystander effect proposed by Darley and Latané (1968). Scales have been developed to assess MD; in accordance with Bandura's (1976, 1981) emphasis on the social and environmental context of behaviours, these are often adapted to be specific to certain domains, including traditional bullying (Thornberg & Jungert, 2014) and cyberbullying (Bussey & Fitzpatrick, 2014). In this way, researchers have demonstrated that MD is implicated in the perpetration of acts of aggression, such as traditional bullying and cyberbullying (see Gini, Pozzoli, & Hymel, 2014, for a review). Interestingly, MD may be similarly involved in influencing responses to witnessed instances of peer aggression. Barchia and Bussey (2011b) have previously investigated the association between MD and intervention in traditional bullying. Their survey of Australian students revealed that after controlling for moral standards, lower levels of MD were associated with more frequent intervention in bullying incidents.

Moreover, the ability to disengage from moral standards may be more important in predicting immoral behaviour than the standards themselves. Bussey, Fitzpatrick, and Raman's (2015) investigation of moral determinants of cyberbullying found that moral standards were only significantly associated with cyberbullying perpetration when MD was not accounted for. In this study, the addition of MD to the predictive model reduced the association between moral standards and perpetration to non-significance. It is thus possible that MD is similarly involved in witnesses' response to cyberbullying, and is more influential than moral standards. However, a follow up study by Bussey and Fitzpatrick (2015) failed to find any direct effect of MD on bystander

intervention in cyberbullying. Thus, evidence for the influence of MD in cyberbullying behaviours is so far inconclusive.

3.2. Empathy

Empathy broadly refers to the individual's ability to vicariously experience the emotional states of others (Clark, 1980), and consistently predicts pro-social behaviour, including defending victims of traditional bullying (e.g. Nickerson, Mele, & Princiotta, 2008). Van Cleemput et al. (2014) have similarly found that individuals higher in empathic concern were more likely to help victims of cyberbullying. Conversely, those with lower levels of empathy were more likely to join in with the cyberbullying, or remain passive. Furthermore, Macháčková, Dedkova and Mezulanikova (2015), and Macháčková, Dedkova, et al. (2015) have demonstrated that both trait levels of empathy and situation-specific empathy for victims predict bystander intervention. The activation of empathic reactions seems to depend in part on situational factors relating to cyberbullying incidents. For instance, Macháčková, Dedkova and Mezulanikova (2015) and Macháčková, Dedkova, et al. (2015) study of Czech adolescents who had witnessed (but not perpetrated or been victims of) cyberbullying found that more empathic responses are evoked when witnesses were "directly present" or informed about the event by the victim. Additionally, those who had an existing relationship with the victim (regardless of how positive or negative) had stronger emotional reactions to the witnessed incident, although whether this prompted intervention was not investigated.

Empathy has been shown to predict intervention in experimental simulations of cyberbullying. Freis and Gurung (2013) examined whether bystanders' personality, prejudicial attitudes and empathy would predict their likelihood of intervening in a Facebook cyberbullying paradigm involving a homophobic attack on a confederate. This paradigm returned an unusually high intervention rate of 90.6%, potentially due to the forced nature of responses; those high in empathy were more likely to intervene by changing the topic. Interestingly, personal distress empathy predicted the degree of explicit language used in responding. This effect may be mediated by MD-individuals who are more sensitive to the distress of cyberbullying victims may find it harder to justify or excuse their failure to intervene. However, no study has investigated the relationships between empathy, MD and intervention in the context of bystanders to cyberbullying.

Empathy may further be relevant to researchers concerned with designing programs to increase bystander intervention in cyberbullying. Barlińska, Szuster, and Winiewski (2013) designed a short induction aimed at increasing bystanders' levels of empathy, consisting of a two-minute video of a victim of cyberbullying describing her experiences, including the emotional impact of the victimisation. This induction was trialled on a sample of 584 Polish high school students, and was successful in that it significantly reduced participants' intentions to join in with an unrelated incident of cyberbullying by spreading the humiliating message. However, it should be noted that the induction only discouraged bystanders from joining in on the cyberbullying, and it did not significantly increase prosocial responses. Moreover, a follow-up study found that these effects were not replicated when there was a week-long delay between the induction and subsequent testing (Barlińska, Szuster & Winiewski, 2015). Additionally, it is unclear whether the observed changes in response were due to increased empathy levels; focus groups conducted by DeSmet et al. (2012) have revealed that Belgian high schoolers are largely unaware of the consequences of cyberbullying. It is therefore possible that the benefits of the induction arose because the video also educated participants of the impacts of cyberbullying. Thus, while empathy inductions may be viable options for intervention, more conclusive evidence is needed to determine whether empathy inductions can reliably increase bystander intervention through increasing empathy.

3.3. Self-efficacy

Discrepancies between the individual's moral values and their behaviour may also arise from deficits in self-efficacy. Self-efficacy has been discussed previously with respect to the fourth step of Latané and Darley's (1970) bystander response process, but this research may also extend our understanding of morality in the cyberbullying context. Interestingly, in Thornberg and Jungert's (2013) study defenders and passive bystanders did not significantly differ on measures of morality: both groups reported high moral sensitivity and low moral disengagement. They differed only on defender self-efficacy- that is, both groups were morally obliged to intervene, but only defenders considered themselves capable of intervention (Thornberg & Jungert, 2013). An initial study by Bussey et al. (2015) suggests that self-efficacy may be similarly involved in cyberbullying; individual MD was positively associated with cyberbullying perpetration only when self-efficacy to cyberbully was high. Although these findings relate to the perpetration of cyberbullying, they may apply similarly to bystander responses (including joining in and intervention), particularly given that self-efficacy is known to be associated with intervention in traditional bullying.

3.4. Cyberbullying in context: environmental and social factors

While MD and self-efficacy may be important influences on witnesses' responses, focussing wholly on these individual factors and cognitions ignores the social and technological contexts of cyberbullying. Bandura's social cognitive framework emphasises the need to consider contextual influences on individuals' behaviour; this is especially the case for cyberbullying, which is grounded in both the social context of the peer group and the technological context of mediated communication. It is therefore important for researchers to consider how these contextual factors influence bystander behaviour. In this way, findings that previously appeared inconsistent- for example, differences in influences on bystander intervention between peers and strangers, or between traditional and cyberbullying- may be explained.

3.4.1. Mediated morality: technological affordances and moral disengagement

Although traditional bullying and cyberbullying are similar and often occur in combination, Perren and Gutzwiller-Helfenfinger (2012) argue that the differences between online and offline environments are sufficient for different moral processes to be involved. Specifically, they suggest that the distanced nature of mediated communication obscures the impact of cyberbullying on its victims, eliminating the need to justify immoral actions or inactions. This is consistent with the results of their survey of German-speaking adolescents, which found that cyberbullying perpetration was predicted by moral values and moral emotions (guilt and remorse), but not by MD (Perren & Gutzwiller-Helfenfinger, 2012). Other studies of MD in cyberbullying have returned mixed results. For instance, Wachs' (2012) survey of German adolescents found that MD was more common in cyberbullies than in traditional bullies, in that they were less likely to report having a bad conscience. These mixed results suggest that researchers should not blindly generalise findings about the role of MD in bystander intervention from traditional bullying to cyberbullying. Rather, it is important to test and (if possible) replicate these effects in online contexts.

Alternatively, aspects of mediated communication may facilitate MD. Pornari and Wood (2010) note that mediated aggression is facilitated by technological affordances- features of the medium which enable (but do not cause) certain patterns of behaviour. In particular, they suggest that the distanced and asynchronous nature of mediated communication and the ability to act anonymously may appeal to those wishing to aggress, because of the lack of (immediate) consequences and the inability to see the impact on victims. Runions and

Bak (2015) further note that non-mediated (offline) communication is highly dependent on non-verbal and paralinguistic cues, such as facial expression and tone of voice. By contrast, mediated communication is largely devoid of these social and emotional cues, which complicates the interpretation of messages. This effect is proposed to be mediated by empathy: the paucity of social and emotional cues impairs individuals' ability to empathise with each other. This particularly impacts on affective empathy, described as "the ability to effortlessly sense and powerfully experience the emotions of others" (Barlińska et al., 2013, p. 39), which is heavily dependent on these cues. The impairment of affective empathy implies that the impetus is shifted to witnesses to engage in more effortful cognitive empathy processes- indeed, bystander intervention in cyberbullying is predicted by cognitive (but not affective) empathy (Owusu & Zhou, 2015). The obstruction of empathic processes may lead to the individual distorting or downplaying the consequences of their actions, especially with respect to the impact on victims (Runions & Bak, 2015).

Although these mechanisms were initially proposed in relation to the perpetration of cyberbullying, they may apply similarly to inactive bystanders. Here, witnesses who perceive the incident to have little impact on victims may conclude that no intervention is necessary. Runions and Bak (2015) further argue the lack of socio-emotional cues makes mediated communication dehumanising by default, as these cues are required to empathise with others and perceive their humanity. Additionally, more broadly-oriented social media (e.g. social networking sites) are designed to maximise the spread and sharing of content to vast audiences (boyd, 2014). As a result, incidents of peer aggression that occur online may be witnessed by far larger audiences than incidents of traditional bullying. These conditions may further facilitate disengagement mechanisms involving the diffusion and displacement of responsibility, as more witnesses are present to share responsibility (Runions & Bak, 2015). However, the interactions between technological affordances and specific MD mechanisms have not been tested empirically; further research is required to substantiate these theories.

Despite this, it is important to note that technological affordances do not solely facilitate negative behaviours and cognitions. Bastiaensens et al. (2015) note that adolescents appear to consider the affordances of different communication mediums when deciding how to respond to cyberbullying incidents, placing particular emphasis on features that allow them control over the situation. These participants favoured private and mediated forms of response which gave them more control over their message (including its timing) and the audience, particularly in more severe incidents where face-to-face or public interventions could risk delays or repercussions for both defenders and victims. Bastiaensens et al. (2015) interpret these preferences as indications that adolescents "highly value the ability to control their communication in more difficult social situations" (p. 432). Therefore, consideration of the technological context of cyberbullying should explore both the positive and the negative implications of its affordances.

3.4.2. Peer influences on cyberbullying and intervention

3.4.2.1. Collective moral disengagement and social norms. In addition to &&individual MD strategies, consideration should be given to collective moral disengagement (CMD). Originally proposed by Bandura (Bandura, 2002; White, Bandura, & Bero, 2009), this term describes an individual's perceptions of their peer's moral credentials, which reflects their impression of social norms. As the development and expression of morality, especially with respect to peer aggression, is inextricably grounded in the social context (Bandura, 2001), it is likely that individuals' tendency to morally disengage will be influenced by their classmates' moral behaviour- or their perceptions of their classmates' morality. The most extensive study of CMD in the context of peer aggression was conducted by Gini, Pozzoli, and Bussey (2015). These authors investigated CMD both as it was perceived by individuals (student-level CMD) and at the class level, by aggregating student-level CMD scores amongst classmates (classroom CMD). The results revealed that student-perceived CMD was significantly positively associated with defending behaviours; in contrast, classroom CMD was negatively associated with defending behaviours, but positively associated with passive bystanding (Gini et al., 2015). That is, classes who were more morally disengaged were more passive and less likely to defend. Despite this, individuals who *perceived* their classmates as more morally disengaged were more likely to intervene in defence of victims.

Moreover, CMD seems to qualify the effects of individual MD. In Gini et al. (2015) study, individual MD was not significantly associated with either inaction or intervention when measures of CMD were taken into account. This suggests that peer group morality may actually be a stronger influence on an individual's moral behaviour than their own moral cognitions. It is interesting to note that MD and CMD may also have an interactive effect. For example, CMD was noted to mediate the link between MD and aggression such that individual MD was positively associated with aggression only when CMD was high (Gini et al., 2015). Although this interaction did not significantly predict either passivity or defending, it does provide preliminary evidence that individuals may be more likely to morally disengage if they believe these mechanisms are socially normative.

Interestingly, social norms may also influence bystanders' decision to join in with cyberbullying. Bastiaensens et al. (2016) survey of Flemish youth found that those who thought their friends would approve of them cyberbullying felt more social pressure to join in when they witnessed instances of cyberbullying, and were subsequently more likely to do so. This was not the case for the injunctive norms of classmates, who did not appear to be sufficiently close to elicit social pressure. Cyberbullying-specific norms thus appear to influence multiple bystander responses, mediated by the closeness of the peer group. However, a relatively small proportion (5%) of Bastiaensens et al. (2016) participants reported having joined in with witnessed incidents of cyberbullying- it is unclear whether results from this sub-sample will generalise to other bystanders. Witnesses may further feel pressured to respond in certain ways because of certain social expectations- particularly stereotypes. Some studies have found that females are more likely to help victims (Bastiaensens et al., 2014; Olenik-Shemesh et al., 2015), while males are more likely to reinforce the cyberbully (Bastiaensens et al., 2014); this may reflect gendered associations between femininity and helpfulness, and between masculinity and aggression (Prentice & Carranza, 2002). This may parallel associations between gender, empathy and intervention; Graham and Ickes (1997) note that females may be motivated to portray themselves as empathetic, and this may influence responses to empathy measures, and motivate helping behaviours in incidents of peer aggression.[2]

3.4.2.2. Prejudices. Cyberbullying perpetration and bystanding behaviour may also be influenced by broader social norms that are not specific to aggression. Victims of peer aggression are disproportionately likely to be members of minority groups, such as those defined by gender, ethnicity and sexual orientation, while perpetrators may be motivated by corresponding prejudices (see Hong & Espelage, 2012, for a review). Byers (2013) has further suggested that in these incidents, witnesses may also be complicit in the perpetrator's prejudice- that is, their own prejudices may be discouraging them from intervening. In support of this, an experimental study by Freis and Gurung (2013) found that individuals who were more accepting of homosexuality were also more likely to intervene in a Facebook cyberbullying paradigm involving a

[2] Females tend to intervene more in instances of traditional bullying (e.g. O'Connell, Pepler & Craig, 1999) although these findings have not been consistently replicated in cyberbullying contexts (e.g. Barlińska et al., 2013; Li, 2006; Macháčková et al., 2013; Van Cleemput et al., 2014). This may be due to the inclusion of different control variables- for example, Macháčková et al. (2013) found gender differences were reduced to non-significance after accounting for socio-emotional factors.

homophobic attack on a confederate. Similarly, Anderson et al. (2014) found that individuals who intervened in a simulated incident of weight-based cyberbullying tended to hold less negative views of obesity, in that they did not necessarily equate excess weight with ill health and personal weakness.

Extending this idea in combination with social cognitive theory, prejudices held by the peer group may also influence bystanders' responses. This effect may be direct- for example, witnesses may be discouraged from intervening for fear of becoming affected by the same stigma. Alternatively, individuals may develop prejudicial attitudes through their interactions with and observations of others. Prejudices are inherently social, involving the derogation of one group by another; as such, specific prejudices are not innate but learned at an early age through modelling (Piaget, 1932; Bergen, 2001). Individuals may also be more likely to act on their prejudices (or in the case of bystanders, remain passive) if they believe others share their attitudes- as with the observed interaction between MD and CMD in Gini et al. (2015) study. Previous research on cyberbullying has largely ignored the influence of prejudice on witnesses' responses, perhaps because these studies do not explicitly depict prejudice-based incidents. With the exception of Freis and Gurung (2013) and Anderson et al. (2014) studies, experimental paradigms typically portray generic instances of cyberbullying with no clear cause. Thus, researchers must consider the possibility that real-world cyberbullying incidents are influenced by prejudices, and that these prejudices may shape bystanders' reactions.

3.4.2.3. Modelling[3]. Modelling is perhaps the most visible way in which individual witnesses' responses to cyberbullying are affected by their peers. In this process, individuals learn behavioural responses by watching the actions of others, as well as the consequences of these actions (Bandura, 1986). Although modelling is often discussed with respect to the longer-term acquisition of behaviours, several studies suggest that it may have immediate effects in the cyberbullying context. Bastiaensens et al. (2014, 2015) noted that bystanders' responses to cyberbullying were influenced by the reactions of others; participants were more likely to reinforce bullies or defend victims if others before them had visibly done so. Anderson et al. (2014) similarly found that modelling dissent (by publicly disagreeing with a cyberbully's insulting message) increased the likelihood that subsequent witnesses would intervene. It is possible that these effects do not represent modelling but instead reflect a mediating effect of perceived severity. That is, individuals who see others defend victims of cyberbullying may interpret this intervention as an indicator that the situation is severe enough to require assistance. However, this does not explain why Bastiaensens et al. (2014, 2015) findings were stronger when bystanders were close friends; this result is more consistent with modelling, which is known to be more effective when the observer likes or is similar to the model (Bandura, 1986). Moreover, the involvement of modelling would suggest that bystander reactions to current cyberbullying situations (and the responses that they receive in turn) may influence the way witnesses respond to subsequent incidents of cyberbullying within the same peer network.

3.4.2.4. Collective self-efficacy. Finally, perceptions of the broader community's ability to address cyberbullying may further influence whether and how witnesses respond to incidents. Barchia and Bussey (2011a, 2011b) have conducted two studies investigating the effect of collective self-efficacy- the individual's belief that their wider school community is able to effectively deal with cyberbullying. Collective self-efficacy was negatively associated with peer aggression (2011a) and positively associated with defending (2011b) in the case of traditional peer aggression. That is, individuals were more likely to aggress and less likely to defend if they perceived their community as unable to effectively address bullying. Although this effect has not yet been examined in the cyberbullying context, it is likely that collective self-efficacy will be similarly influential; in fact, it may have a stronger influence online, as communities have had less experience in dealing with bullying in this context. Moreover, addressing cyberbullying effectively requires the mastery of technology, in addition to the skills needed to address traditional peer aggression. Additionally, qualitative research indicates that the perceived efficacies of specific others may influence cyberbullying witnesses' choice of responses. For instance, DeSmet et al. (2012) participants expressed reservations about adults' abilities to resolve cyberbullying, noting that this discouraged them from seeking help from adults. Hence, witnesses may also consider whether others are able to address cyberbullying when deciding how to respond.

3.5. Conceptualising bystander responses using social cognitive theory

The breadth of social cognitive theory means that it is necessarily able to incorporate a wide variety of personal, behavioural and environmental factors, while allowing for the interaction of these influences with each other and the wider socio-cultural context. As the theory is essentially all-encompassing, it is able to accommodate diverse qualitative and quantitative findings- although it may take more work to do so in a meaningful and conceptually useful way. Perhaps most importantly, social cognitive theory allows for the exploration of reciprocal and dynamic influences on behaviour; this is particularly useful for researching interactions within an established peer group, where norms and standards influence and are influenced by the behaviour of group members. Finally, social cognitive theory may be applied to explain a variety of bystander responses to cyberbullying, including various forms of intervention, joining in, and passivity.

4. Strengths, limitations, and future directions

Although cyberbullying is a relatively recent phenomenon, a considerable body of literature has already been established to investigate the role of bystanders in responding- or rather, not responding- to incidents. These studies have been invaluable in establishing the basic principles that guide bystander behaviour; notably, their findings have been remarkably consistent across cultures with only minor variations, suggesting potential cross-cultural applicability. Additionally, researchers have developed and used paradigms depicting multiple forms of cyberbullying, including posting insulting messages (Obermaier et al., 2014), invasive photos (Bastiaensens et al., 2014) and sharing private information (Shultz et al., 2014). This has allowed researchers to explore reactions to many different forms of this diverse phenomenon, further adding to the generalisability of their findings.

However, Van Cleemput et al. (2014) note that of all the possible responses reported by bystanders to cyberbullying, the lack of response is perhaps the most difficult to explain because of the numerous socio-cognitive and contextual factors that may influence this decision. Darley and Latané's (1968) research on the bystander effect has long been the dominant framework for examining bystander behaviour across a broad range of contexts. Indeed, grounding research in this theory has been instrumental in mapping out the mechanisms underlying bystander inaction, and many of the reasons offered up by bystanders of cyberbullying to justify their inaction map to the five steps of the bystander intervention model (Darley & Latané, 1968; Latané & Darley, 1970). This framework can incorporate the situational and relational factors that are crucial to understanding interactions within established social contexts. However, it is limited to explaining intervention and passive bystander behaviour; there is no attempt to account for the minority of witnesses who join in with cyberbullying. Furthermore, it is a

[3] Modelling is often grouped under 'behaviour', one of the three main facets of Bandura's social cognitive theory. However, within the context of the review it was considered to be more closely linked with other peer influences on cyberbullying and intervention.

relatively static theory: while it encompasses social influences on intervention (e.g. norms, expectations), it does not consider the processes by which these influences develop, or how bystander behaviour may influence them in return.

Bandura's social cognitive theory addresses some of these issues, as it positions the factors involved in witnesses' responses as being interactive, and inextricably ground in the social and environmental context. This theory enables researchers to conceptualise the reciprocal influences of individual factors (e.g. personality, empathy), behaviours (e.g. modelling) and cognitions (e.g. MD, self-efficacy), and to explore how these factors may further interact with their social context (e.g. existing relationships, social norms, prejudices). Social cognitive theories of morality are broad enough to cover a variety of qualitative and quantitative findings, however its all-encompassing nature can make it difficult to conceptualise how these numerous factors relate to and influence bystander responses, and each other.

Some researchers have endeavoured to address the limitations of the bystander intervention model and social cognitive theory by combining these approaches. For example, DeSmet et al. (2014, 2016) created a composite theoretical model which used these two models in combination with the reasoned action approach (Fishbein, 2008) to explore cyberbullying witnesses' responses. In this way, researchers can combine the strengths of different theories into a more comprehensive model of bystander behaviour. In DeSmet et al. (2014, 2016) case, the widely used bystander intervention model was used as the foundation, with the reasoned action approach and social cognitive theory used to model how individuals might one from one stage to the next. However, there is no single best theoretical combination that will perfectly satisfy every researcher's needs, just as each individual theory has its respective strengths and weaknesses. Researchers should thus choose the approach (or combination of approaches) most suitable for their purposes, with careful consideration of any potential limitations.

Although social cognitive theory effectively ensures the consideration of multiple individual, social and contextual determinants of bystander behaviour, researchers must ensure that these factors are adequately addressed in their experimental research. At present, those designing cyberbullying studies must negotiate a difficult compromise between ecological validity and experimental control. Recall paradigms (e.g. DeSmet et al., 2012; Macháčková et al., 2013; Van Cleemput et al., 2014) ask participants about their reactions to incidents of cyberbullying they have witnessed in real life. This method ensures high ecological validity, but results may be affected by response biases- for example, participants might write about incidents they consider prototypical of cyberbullying, or incidents where they defended the victim in order to appear better. Other research teams have designed paradigms which expose participants to simulated incidents of cyberbullying. In these studies, participants are typically asked to imagine that those involved in the incident are their peers or classmates (Barlińska et al., 2013; Obermaier et al., 2014), or close friends (Bastiaensens et al., 2014, 2015; Shultz et al., 2014). While this may be adequate to simulate the relationship between bystanders (participants) and the characters in the scenario, it does not convey the social dynamics amongst the characters involved in the cyberbullying incident. Explicitly detailing the history and nature of previous interactions between characters is obviously unrealistic and impractical- however, in actual cyberbullying incidents participants are typically familiar with each other (DeSmet et al., 2012; Macháčková et al., 2013), and witnesses are therefore likely to have at least a basic awareness of these relational dynamics.

Furthermore, only three paradigms hint at the reason for the cyberbullying- Freis and Gurung (2013) and Anderson et al. (2014) portrayed incidents motivated by homophobia and weight-based prejudice respectively, while Shultz and colleagues' (2014) "victim" was explicitly targeted for their behaviour at a recent social event. However, the majority of paradigms present incidents that are almost entirely devoid of their social context, leaving participants uncertain as to the reason why the cyberbullying is occurring, or who is at fault. Moreover, the characters portrayed in the scenario are typically not given names or profile pictures which clearly indicate either gender or ethnic background. This theoretically adds to the generalisability of findings, but may appear artificial and does not accurately represent the nature of cyberbullying incidents.

In this respect, researchers would benefit from using previous qualitative findings to inform future experimental designs. This applies equally to experimental cyberbullying simulations, and to the response options which are provided to participants. DeSmet et al. (2012) focus group participants identified multiple methods of intervening in incidents of cyberbullying, including comforting the victim, confronting the bully, or reporting the situation to adults. Similarly, studies which allow individuals to freely describe how they react to cyberbullying incidents have found that participants spontaneously mention different means of responding. Rather than responding publicly, many prefer to contact those involved offline, privately, or through alternate media (Bastiaensens et al., 2014, 2015; Shultz et al., 2014). Moreover, these response dimensions may interact; participants particularly reported that confronting bullies was best done offline, for fear that public humiliation would escalate the situation (DeSmet et al., 2012).

It is important to integrate these response dimensions into future research paradigms, as preliminary evidence suggests that the use of different response strategies may be influenced by different factors. For example, participants reported that they would not refer incidents to teachers if their efficacy at resolving cyberbullying situations was doubted (DeSmet et al., 2012), while the preference for private intervention was stronger if other bystanders had reinforced the bullying, particularly if they were close friends (Bastiaensens et al., 2015). Additionally, response preferences may be biased by the way in which the bystander has encountered the cyberbullying incident; individuals may be more likely to intervene offline if they are physically present when the message is sent or received, or more likely to offer support if the victim personally tells them about their experiences. However, these predictions are speculative, as little research has been done into the different ways cyberbullying can be witnessed. The neglect of these response dimensions is an issue which must be addressed if such research is to be used as the basis for designing programs to increase cyberbullying bystander intervention.

Bystanders of cyberbullying are considered to be critical in addressing cyberbullying, yet there is still much to be learned about the factors that influence their responses to the incidents they witness. Previous research on witnesses' responses has done well to identify factors which independently predict intervention; given the heavy influence of the social context on peer aggression, researchers would benefit from the inclusion of social and relational factors in both their theoretical models and experimental designs. These studies, both past and present, may contribute to the development of programs which aim not only to increase bystander intervention, but also to change social attitudes and norms concerning cyberbullying in a way that reduces its prevalence, impact and acceptability. However, it is important not to overstate the importance and applications of these results: not all incidents of cyberbullying occur in public and are witnessed by others. Instances of peer aggression that occur privately (e.g. emails or text messages sent only to the victim) are likely to be more difficult to address, as this requires the victim to seek help or the bully to become aware of the impact of their actions. Despite this, whole-school interventions targeting bystander intervention may indirectly reduce the prevalence and impact of these private forms of cyber-aggression by conveying to potential perpetrators that these behaviours are socially unacceptable, and by empowering others to effectively manage incidents that occur. Thus, it is important that cyberbullying research continues to address the broader social context within which these incidents occur, especially with respect to the role of bystanders.

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