INTRODUCTION

Bullying in schools has been a global problem and the subject of social science research for the past several decades (Chapell, Casey, De La Cruz, et al., 2004), spurred by concern about the short and long-term consequences to victims and bullies alike (Salmon, James, Cassidy & Javaloyes, 2000). Recently, media coverage of how Internet- and mobile phone-based bullying may be more frequently contributing to tragic youth suicides and complex legal action, has intensified scholarly interest in the relatively-new cyber-bullying trend (Jones, Mitchell & Finkelhor, 2012). Cyber-bullying has been defined as intentional aggression using an electronic medium (Dooley, Pyzalski & Cross, 2009), and as “the use of information and communication technologies to intentionally harm others” (Mesch, 2009, p. 387), but controlled research on the topic is yet rather limited (Drogin & Young, 2008). Recent national surveys of online victimization in the United States have resulted in varied estimates of the prevalence of cyber-bullying. For example, Wolak, Mitchell, and Finkelhor (2007) found that 9% of youth respondents indicated that they had been bothered, threatened, or harassed online. By 2010, this number had risen to 11%, which actually coincided with decreased reporting of unwanted sexual solicitation and unwanted exposure to pornography among youth on the Internet (Jones et al., 2012). Reports of cyber-bullying victimization among American college students are significantly higher, at almost 22% (MacDonald & Roberts-Pittman, 2010), likely indicating that such experiences do not end with high school graduation. It is currently believed that psychological reactions to traditional bullying and cyber-bullying are often similar in nature, particularly if one suffers this victimization repeatedly (Wolak et al., 2007). For example, as many as one-third of adolescents presenting for mental health treatment report being victims of bullying (Salmon et al., 2000). With research indicating that bullying victims frequently experience both online and in-school bullying (Juvonen & Gross, 2008), it may be that being repeatedly and intentionally targeted online contributes to significant or even clinical-level distress in some youth. Therefore, scientific understanding of multiple aspects of this growing problem is of major importance.

From a legal standpoint, cyber-bullying presents a situation that is inherently difficult to control, given challenges in identifying perpetrators, pressing charges, and ensuring that cyber-bullies be held accountable. In regards to cyber-bullying of youth and college students, these actions do not (usually) occur on school grounds, and can at times be relatively anonymous. These unique features of cyber-bullying add complexity to the crucial determinations of blame and subsequent punishment (Erb, 2008) which would ultimately help control this problem. Research has indicated that witnesses and victims of cyber-bullying frequently do not report these incidents (Juvonen & Gross, 2008), perhaps related to a concern that the disconnect between the online and physical worlds prevents corrective action (Li, 2010). Reticence to report could also result from a belief that engaging in self-protective behaviors online is more appropriate than seeking “real world” assistance (Lwin, Li & Ang, 2012). Therefore, while attribution studies of blame and punishment for victim outcomes in traditional bullying circumstances might be expected to replicate past findings (described
below), similarly-conducted attribution studies of blame and punishment in cyber-bullying may result in different findings.

How individuals attribute blame, intention, and deservingness of punishment (among other variables) in cases of victim misfortune has been an area of focused social psychological research in the US for over 20 years. Experimental studies have indicated that these attributions appear to be subject to various influences. For example, early work in this area has found that situational outcomes which are judged to be foreseeable, are also judged to have been preventable by those acting in those situations; therefore, blame for those victim outcomes is ascribed to those actors (Mandel & Lehman, 1996). More recently, a number of well-designed experimental vignette studies have confirmed that when victim outcomes are judged as highly foreseeable, rather than difficult to anticipate, high ratings of blame are assigned to actors (Alicke, Weigold & Rogers, 2008). When actions are depicted as having negative (as opposed to positive) outcomes, attributions of blame, responsibility, and intention also are significantly higher (Alicke, 2008; Alicke & Davis, 1990; Alicke, Weigold & Rogers, 2008). Furthermore, if an actor is depicted as having a socially undesirable (as opposed to socially desirable) motive for an action which leads to a negative outcome, higher levels of intention for that negative outcome are attributed to the negatively-motivated actor (Alicke, 1992). Finally, when an actor is depicted as willfully choosing (versus being forced into) an action that brings harm to another, greater blame is attributed to that actor (Alicke, Buckingham, Zell & Davis, 2008).

Researchers in this area explain such findings by reasoning that individuals are inherently motivated to discern the intentions of others, and to assign personal blame for harmful outcomes whenever possible. Therefore, people rely on situational cues in their judgments – even when it is illogical to do so (Alicke, 1992; Alicke, Davis & Pezzo, 1994). Such investigations of blame, intention, and foreseeability have been successfully replicated in regards to attributions about criminal responsibility (Nadelhoffer, 2006), indicating that applying this framework to the issue of cyber-bullying may illuminate how people think about this problem and expect it to be addressed.

Given the rising need to understand perceptions of cyber-bullying, the present study sought to investigate attributions about in-school bullying vs. cyber-bullying using an experimental manipulation (randomly-distributed vignettes). Our dependent variables were perceptions of whether a person’s reaction to being bullied was predictable (predictability), and corresponding attributions of perpetrator blame, responsibility, intention for outcome, and need for punishment of the bully.

In accord with past research, we hypothesized a main effect of outcome foreseeability, such that if the outcome of a bullying interaction were highly foreseeable (in this case, that the victim would begin crying), then participants would provide higher ratings of predictability, blame, responsibility, intention, and punishment, than if the outcome of bullying was not foreseeable (in this case, that the victim would commit suicide that evening). In addition, we hypothesized a main effect of bullying type, such that depictions of in-school bullying situations would receive higher ratings on our dependent measures than depictions of cyber-bullying would. We reasoned that victim outcomes would be attributed to a greater degree to in-school perpetrators because study participants might perceive relatively greater “distance” between the cyber-bully and his/her victim, thus reducing the cyber-bully’s blame, responsibility, etc. for victim outcomes. In addition, past findings regarding how repeated cyber-bullying victimization seems to cause greater victim distress than single-incident cyber-bullying does (Wolak et al., 2007) made us believe that our vignette depiction of a single incident of cyber-bullying might not be viewed as very serious in nature. Finally, we hypothesized an interaction between foreseeability and bullying type, such that ratings on our dependent measures would be highest in the high foreseeability, in-school bullying situation.

METHOD

Participants
A sample of 163 students from a regional campus of a Midwestern US state university participated in this study, with 52 (31.9%) male and 111 (68.1%) female participants. Participants were at least 18 years of age (range 18-61 years, M = 24.10, SD = 8.33). The sample was majority White (n = 150, 92.0%), identical to the campus racial profile. Participants were recruited from introductory psychology and criminal justice lecture courses, but reported various majors within the university: 102 participants (62.6%) reported majors other than psychology (n = 37, 22.7%) or criminal justice (n = 24, 14.7%), with common majors listed as nursing, business, and education.

Materials
Participants completed a written survey which assessed demographics and a potential study covariate (prior experiences with victimization). The experimental manipulation (described below) followed, and the survey concluded with items which assessed our main dependent measures.

Experiences with victimization. We were unable to find a published brief measure of past experience being the victim of crime. We therefore included items to assess personal experience with property crime (burglary, theft, carjacking, arson) and violent crime (rape/attempted rape, assault), and the degree to which friends and family members of participants had experience with the same crimes. Participants responded that they (or their friends/family members) had either never been a victim, occasionally been a victim, or been a victim several times (coded as 1, 2, and 3 respectively).

Experimental manipulation. Participants read one of four randomly-distributed vignettes (Table 1, with participant instructions included), reflecting a fully-crossed 2 x 2 design (foreseeability by bullying type). Vignettes were then followed by items asking participants to rate predictability, responsibility, blame, punishment, and intention on a 1 (not at all) to 9 (completely) scale, each of which were considered separate dependent measures.

Procedure
Participants completed surveys in class with instructor permission, usually for a small amount of course credit. Surveys were distributed randomly and designed to appear fully identical; no students said or did anything during the study to indicate that the experimental manipulation was detected. Participants were debriefed via an information form that included resource information in case any students experienced significant distress related to the study. All aspects of the study were fully reviewed and approved by the governing Institutional Review Board.
respond to the rating items by referring to the vignettes were similarly constructed. Participants were instructed to the high vs. low foreseeability versions above). The in-school bullying vignette about Nicole and Emily

Nicole is a freshman in high school. Today, when she gets to school, she discovers that her classmate Emily has posted a message on Facebook revealing embarrassing secrets and insults about Nicole. Several of her classmates have already read the message on their Facebook pages. Nicole overhears people laughing and talking about her. She is humiliated and hurt and skips class to cry in the restroom.

Dependent measures and item wording

Predictability

The action Nicole took was predictable.

Responsibility

Emily is responsible for the action Nicole took.

Blame

Emily should be blamed for Nicole’s action.

Punishment

Emily should be punished for Nicole’s action.

Intent

Emily intended for Nicole to take the action she took.

Note: Both of the cyber-bullying vignettes were worded identically, with the exception of the underlined portion (which was varied as noted in the high vs. low foreseeability versions above). The in-school bullying vignettes were similarly constructed. Participants were instructed to respond to the rating items by referring to the “underlined portion of the vignette about Nicole and Emily” on a 9-point scale (1 lowest).

Statistical analysis

Demographic items were subject to descriptive analysis of the sample. To calculate scores on experiences with victimization, the mean of the four items was calculated for each participant, and scale reliability was examined via Cronbach’s alpha. To test our hypotheses, we performed two-way analyses of covariance (ANCOVAs) with foreseeability and bullying type as our independent variables, and experience of victimization as a covariate, in predicting each of our dependent variables.

RESULTS

The demographic profile of the sample approximated the demographics of the university on the whole (e.g., majority female, White, and of varying age). Regarding experiences of discrimination, most respondents indicated having some experience of being victimized in the measured ways \((M = 1.59, SD = 0.43)\). Note that though \(\alpha\) was fairly low for this measure \((\alpha = 0.62)\), one would not necessarily expect responses on these particular items to be entirely unified (though some correspondence between one’s own experiences of victimization, and that of his/her family or friends, would probably be expected). Preliminary regression analyses revealed no problematic interactions between the covariate and our IVs. In our main analyses, main effects of foreseeability of bullying outcome (controlling for past victimization) were found in four of our five tests, significantly predicting predictability \((F_{2,158} = 120.59, p < 0.001)\), responsibility \((F_{2,158} = 4.18, p < 0.05)\), blame \((F_{2,158} = 8.93, p = 0.003)\), and intent \((F_{2,158} = 145.64, p < 0.001)\), and nearly reaching significance in regards to punishment \((F_{2,158} = 3.74, p = 0.055)\). However, no main effect of bullying type was revealed in our tests in relation to any of our dependent variables; specifically, there was no main effect of bullying type on predictability \((F_{2,158} = 0.28, ns\)), responsibility \((F_{2,158} = 0.00, ns)\), blame \((F_{2,158} = 0.00, ns)\), punishment \((F_{2,158} = 0.12, ns)\), or intent \((F_{2,158} = 1.69, ns)\), thus no significant interaction effects between foreseeability and bullying type were detected. Mean ratings of all vignettes on all dependent measures are provided in Table 2.

DISCUSSION

In accord with previous research (e.g., Alicke et al., 2008b) we found that the more an outcome of a person’s bullying is presented as foreseeable (in this case, the vignettes where the victim is depicted as crying), the more that outcome is viewed as predictable; accordingly, the person committing the bullying act is viewed as more responsible for that outcome, more deserving of blame for that outcome, and more likely to have intended that outcome. Our final dependent measure of whether the bully deserves punishment for the outcome did not quite reach significance, but a trend in that direction was indicated. Therefore, our first hypothesis was generally supported. Interestingly, however, we found that this pattern held regardless of whether the

<table>
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<th>Dependent measure</th>
<th>Foreseeability</th>
<th>Bullying type</th>
<th>M</th>
<th>SD</th>
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<td></td>
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<td>In-school</td>
<td>3.14</td>
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Note: Main effects for foreseeability were found for predictability, responsibility, blame, and intent, such that highly-foreseeable outcomes received higher attribution ratings than outcomes that were not foreseeable did. No main effects for cyber vs. in-school bullying were detected, nor were any of the predicted interaction effects.
bullying was depicted as occurring in school or online, contrary to our predictions. This indicates that in this study, college students viewed victim outcomes as equally attributable to bullying perpetrators regardless of whether the bullying took place in a real-world setting, or via an Internet medium.

In this study, this finding may be explained in part by the fact that all victim outcomes were depicted as negative in our vignettes. As noted above, previous experimental research has indicated that negative outcomes tend to be attributed more to actors than positive outcomes are, even when those negative outcomes are described as accidental (Alicke, 2008; Alicke & Davis, 1990; Alicke et al., 2008b). Therefore, the negative valence of these victim outcomes might have been seen as more salient to consider when attributing blame, than was whether the perpetrator acted in the physical or online worlds to commit the bullying behavior. However, it is also possible that participants in this study view some online social experiences as equally meaningful to real-world experiences. For example, past research has described how youth may use the online environment to explore various social identities and relationships as part of their identity development (Maczewski, 2002). This fluid movement between the online and physical worlds may contribute to youth perceptions that negative social experiences in either “place” can be equally distressing. This perception may underlie a belief among college students that people engaged in intimidating behavior in either environment should be held equally accountable for their actions.

Much work should yet be done in the area of blame attribution and cyber-bullying activity, especially given very high levels of engagement in social technology among young people. For example, researchers should continue to examine how individuals define and perceive cyber-bullying as the variety and sophistication of available technological outlets increases. Mobile phones with camera functionality, text messaging, email, chat rooms, and various social networking sites all are used to carry out cyber-bullying activity, and news reports emerge nearly every day of some terrible consequences of such victimization. It would be useful to determine whether youth and college students interpret all of these types of cyber-bullying as being equivalent to real-world victimization, and whether blame for negative outcomes is similarly applied across the various types of technological media. In addition, it would be helpful to compare attributions about positive vs. negative outcomes experienced by the recipients of real-world and online social behavior, to examine whether the equivalence between the physical and online worlds indicated in this study can be replicated. Finally, examining perceptions of cyber-bullying among youth of various ages (e.g. perhaps as young as age 10) may become increasingly important as social media engagement permeates younger age cohorts.

Regarding practical applications, our findings imply that reevaluating current school policies for cyber-bullying is warranted, as students may assume that any complaints brought to school about cyber-bullying among peers will receive appropriate review and redress. It is likely that some schools may not feel ready to attempt creating procedures for punishing such incidents, and some localities might be reluctant to institute new legislation related to cyber-bullying. However, some changes that acknowledge what may be widespread perceptions of these incidents should be carefully considered. For example, verbiage might be added to present academic policies explicitly describing the school’s view of cyber-bullying and any consequences associated with such events. Similarly, language in anti-bullying legislation should specify whether cyber-bullying events are also subject to the law’s impact. The question of how to appropriately punish cyber-bullying events is challenging, because this behavior is most often viewed at present as falling outside of academic and legal jurisdictions. However, we believe that this stance will seem increasingly outdated and non-sensical to so-called “millennial generation” youth. Therefore, it will be important for schools and institutions to take on the challenge of clarifying consequences for cyber-bullying.

Limitations of the present study include geographic bias (students in a Midwestern regional campus) and limited generalizability to older adult students. While the age range of participants was broad, reflecting the university’s service area, older adults tend to be less personally engaged in online social interaction than youth and college students are. In addition, our sampling approach of recruiting from introductory psychology and criminal justice classes might have impacted study results in unknown ways. However, the classes we used serve the campus general education curriculum, and our resulting participants reported studying various majors, so we feel that this is a minor concern. Overall, we feel that this study represents a useful foray into an area that has of yet has received little research attention.

REFERENCES


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