

The Effects of Mirth and Elevation on Judgements of Cyber-based Moral Violations

Cory D. Brake

A thesis submitted to the Psychology Program in partial fulfillment of the requirements
for the Honours degree, School of Arts and Social Science

Psychology Program

Grenfell Campus, Memorial University of Newfoundland

April 2017

Approval

The undersigned recommend the acceptance of the thesis entitled
“The Effects of Mirth and Elevation on Judgements of Cyber-based Moral Violations”
submitted by Cory Brake
in partial fulfillment of the requirements for the degree of
Bachelor of Science (Honours)

Dr. Daniel Nadolny

Thesis Supervisor

Dr. Kelly Warren

Second Reader

Grenfell Campus
Memorial University of Newfoundland
April 2017

Acknowledgements

Thank-you to my thesis supervisor, Dr. Daniel Nadolny, for introducing me to the world of social psychology. Your teachings have had a tremendous impact on my life, both personally and professionally.

Thank-you to my second reader, Dr. Kelly Warren, for your continued support. You are dedicated to your students, and it shows in every regard.

Finally, thank-you to my mother, Marie Brake, for your unconditional love and support. I could not have done this without you.

Table of Contents	
Approval	ii
Table of Contents	iv
List of Figures	v
Abstract	vi
Literature Review.....	1
Methods.....	9
Participants.....	9
Materials	9
Procedure	11
Results.....	13
Discussion.....	18
References.....	25
Figures.....	29
Appendix A	31
Appendix B	33
Appendix C	34
Appendix D	35
Appendix E	36
Appendix F.....	37

List of Figures

Figure 1. Overall adjusted means for participants' ratings of acceptance of cyber-based moral violations based on condition.

Figure 2. Overall adjusted means for participants' ratings of emotionally valenced reactions toward cyber-based moral violations based on condition.

Abstract

In this online experiment, I tested the effects of mirth (i.e., the resulting emotion from experiencing humour) and elevation (i.e., the resulting emotion from experiencing moral beauty) on judgements of cyber-based moral violations using a convenience sample of 138 people (28 men and 110 women). Based on the findings of prior research, I hypothesized that participants in the mirth condition would be more accepting of cyber-based moral violations than those in the elevation or neutral (control) conditions, and participants in the elevation condition would be less accepting than those in the neutral and mirth conditions. An initial MANOVA showed no effect of condition on participants' acceptability ratings; however, when including gender as a second independent variable, results showed that mirth decreased acceptance whereas elevation increased acceptance. In regards to these findings, I debunk previous explanations underlying the divergent effects of mirth and elevation and discuss an alternative. Furthermore, I suggest that further exploration is required to better understand the emotion-specific effects of mirth and elevation in the context of cyber-based moral violations.

The Effects of Mirth and Elevation on Judgements of Cyber-based Moral Violations

The internet can be viewed in some ways as an incubator for malicious activity (e.g., cyberbullying, aggression, harassment, fraud, identity theft, sexual violations), as it is an area lacking in suitable regulation (Allison & Bussey, 2016; Corcoran, Gukin, & Prentice, 2015). Despite this, internet usage is exceedingly common amongst adolescents and adults alike. In 2012, approximately 83% of Canadians (over 28,000,000 people) aged 16 and over accessed the internet for personal use (Statistics Canada, 2012). In the same year, Canadian authorities reported 3,284 online violations towards another person, some of which included incidents of intimidation, threats, and harassment. Additionally, authorities reported 1,441 various forms of cyber-based sexual violations (Statistics Canada, 2012). In sum, this only accounts for what has been recorded, as countless numbers of violations will go unpunished or even undetected. Authorities are extremely limited in their pursuits against online violations, as the number of internet users climb into the billions of people worldwide (ITC Facts and Figures, 2016). For this reason, the responsibility to help regulate various cyber-environments (e.g., Facebook, Chatroulette, Tinder) falls onto cyber-bystanders.

Cyber-bystanders refer to persons that witness any form of cyber-based activity, incident, violation, and or crime, which virtually encapsulates all internet users (Allison & Bussey, 2016). Cyber-bystanders can play a critical role in the reduction or augmentation of such events (DeSmet et al., 2012; Machackova, Dedkova, Sevcikova, & Cerna, 2016). They have the potential to be passive and aloof (e.g., ignoring inappropriate Facebook posts), support victims (e.g., posting a positive message to someone's Facebook post to counteract a negative comment), intervene and help stop

perpetrators (e.g., reporting an inappropriate Facebook post to the proper authorities), or even promote and encourage problematic behaviours (e.g., "liking" an inappropriate Facebook post) (Allison & Bussey, 2016; Corcoran et al., 2015; DeSmet, 2012).

Our current understanding about cyber-bystanders' judgements of cyber-based moral violations and their subsequent decisions is extremely limited. However, I propose that applied findings from past research of moral psychology could add considerable value in this regard. Over the years, there has been growing research on how the experience of emotions can impact moral judgements, which is said to play a critical role in the development of moral attitudes and decisions (de la Viña, García-Burgos, Okan, Cándido, & González, 2015; Haidt, 2001; Strohminger, Lewis, & Meyer, 2011). The internet is bombarded with emotion eliciting content and as such, the effects of emotions on people's moral judgements could play a crucial role in cyber-bystanders' perceptions of cyber-based moral violations, thus influencing their attitudes and, ultimately, their decision to take action or to be passive.

Past researchers have emphasized the role of negative emotional valence on judgement formation (de la Viña et al., 2015; Haidt, 2001; Strohminger et al., 2011). In particular, such research has demonstrated the importance of negatively valenced emotions such as anger, disgust, and fear (de la Viña et al., 2015; Seidel & Prinz, 2013; Singh, Garg, Govind, & Vitell, 2016; Wheatley & Haidt, 2005). Studies revealed that when situations elicited negative emotions, people were more likely to judge those situations as being morally wrong (Haidt, 2001; Haidt, Koller, & Dias, 1993; Seidel & Prinz, 2013). A prior study illustrated this effect by having participants judge a scenario about a man who purchased dead chickens from a supermarket and had sexual

intercourse with them before he cooked and ate them (Haidt et al., 1993). Participants were inclined to experience disgust when reading this scenario and, therefore, judged this scenario as being morally wrong, even though there was no apparent harm involved (Haidt et al., 1993).

Experiments involving moral violations such as the sexual act with a dead chicken scenario identified important characteristics of moral judgement formation. Firstly, they showed that emotions are likely an integral part of the process of moral judgement formation. Specifically, the very reason that people judge an event as being morally wrong is largely due to how that particular event makes them feel (e.g., the chicken story elicited disgust), which, in turn, signifies another important aspect. These studies showed that moral judgements are largely automatic or intuitive, happening outside of people's conscious awareness rather than a product of conscious rational thought. From an evolutionary perspective, this process was thought to serve as way to quickly detect and avoid potential danger (Fredrickson, 2000; Lazarus, 1991). A practical example of this would be the feeling of disgust after smelling or tasting rotten food. The feeling of disgust lets people know that the food is bad and, therefore, should perhaps be avoided (Chapman, Kim, Susskind, & Anderson, 2009). In a similar fashion, the elicitation of disgust, anger, or fear from experiencing a moral violation conceivably lets people know that something is wrong with the situation (Chapman et al., 2009).

Many explorations have led to the discovery of emotional influences on moral judgements. In particular, past researchers have experimented by inducing negative emotions in participants prior to asking them to make judgements towards a range of immoral acts (e.g., a man steals money out of a stranger's wallet or two cousins decide to

have sex with each other) (de la Viña et al., 2015; Seidel & Prinz, 2013). Results have shown that negative emotions such as disgust and anger evoked harsher moral judgements towards these immoral behaviours (de la Viña et al., 2015; Seidel & Prinz, 2013; Wheatley & Haidt, 2005). However, such effects were said to be most impactful for violations that were rated as being of intermediate severity rather than extreme severity (de la Viña et al., 2015). These findings revealed that although emotions impacted moral judgement, these effects were perhaps limited to certain types of violations.

Although research exploring the influence of negatively valenced emotions on judgements of immoral behaviours has continued to add value to the understanding of such effects, far less is known about the effects of positively valenced emotions and their impact on moral judgements. As such, modern researchers have tried to fill this gap but with mixed results. In one study, de la Viña et al. (2015) used images to induce negative or positive emotional valence in participants before having them judge a series of moral violations. As expected, participants who experienced negative valence judged more harshly, but the effect of positive valence was not as expected. Overall, results showed that positive valence did not influence moral judgement of violations associated with intermediate severity. However, positive valence did influence people's judgements of violations associated with higher severity, specifically, increasing the severity of these violations.

Such investigations into the influence of emotional valence on judgements toward various forms of violations revealed an important mediating factor: the type of positive emotion used. A problem considered with de la Viña et al.'s (2015) study was that it did

not distinguish the specific type of positive emotion to be elicited. According to the appraisal-tendency approach, which addresses the emotion-specific influences on people's judgements and decisions, each emotion serves a distinct function and purpose, engaging unique pathways in the brain (Lerner & Keltner, 2000). In light of this, de la Viña et al. (2015) suggested that further research should explore emotion-specific influences, as different positive emotions have been shown to have distinct effects regardless of their valence. Some positive emotions may influence people to judge more severely, some may influence people to judge less harshly, and others may not have an influence at all.

Two positive emotions have been found to have a distinct impact on people's moral judgements. One such positive emotion is mirth. Mirth is the resulting feeling from experiencing humour (Martin, 2010). It involves the feeling of cheerfulness, pleasure, and amusement, which may be expressed through laughter (Martin, 2010). Mirth has been shown to increase the acceptance of utilitarian responses made in moral dilemmas involving deontological violations (Strohminger et al., 2011). For example, in one study involving the classic trolley dilemma, participants were asked to rate a utilitarian decision involving a deontological violation to push a larger man off a footbridge (i.e., committing murder) in order to stop a runaway trolley from killing five other people (Strohminger et al., 2011). Participants who experienced mirth were more accepting of the sacrificing of the larger man in order to save the five people than those who did not experience mirth (Strohminger et al., 2011).

Another emotion that appears to have an influence on moral judgement is elevation (Algoe & Haidt, 2009; Haidt, 2003). Elevation is described as the feeling that

is a result of experiencing an uncommon selfless act, otherwise known as an act of moral beauty (Haidt, 2003). It involves feeling uplifted and inspired, warmth in the chest, and tearing of the eyes (Haidt, 2003). Elevation has been found to play an important role in moral judgement in a number of ways (Haidt, 2003). For instance, the experience of elevation has been shown to increase prosocial behaviour (Algoe & Haidt, 2009; Cox, 2010). It has also been known to reduce prejudice (Lai, Haidt, & Nosek, 2014). Recently, and conversely to mirth, it has been found to decrease the acceptance of utilitarian responses made in moral dilemmas involving deontological violations (Strohminger et al., 2011).

Reasons for these divergent effects of mirth and elevation are yet to be understood. However, Strohminger et al. (2011) provides a convincing theoretical proposition in support of their findings. Firstly, Strohminger et al. (2011) suggested that mirth increases irreverence, thus insinuating that it decreases concern about the damaging effects of the moral violations and that this, in turn, increases acceptance of deontological violations, as was shown in the classic trolley dilemma. Conversely, Strohminger et al. (2011) posited that elevation increases reverence, thus insinuating that it promotes concern about the damaging effects of moral violations and that this, in turn, increases rejection of deontological violations.

More research is needed in support of Strohminger et al.'s (2011) claims of irreverence versus reverence in regards to the effects of mirth and elevation on judgments of utilitarian choices made in moral dilemmas. But if these claims were to hold true for moral judgment formations, I propose that the influence of mirth and elevation could serve a critical role in cyber-bystanders' perceptions of online moral violations.

Recent examinations of internet users have shown increased frequencies of positive emotional experiences (Lin & Utz, 2015), which could present a prime opportunity to explore the effects of positive emotions of moral judgments online. If mirth does indeed promote irreverence, then perhaps cyber-bystanders would be inclined to be more accepting of cyber-based moral violations after they have seen a funny meme or watched a funny video. Conversely, if elevation does indeed promote reverence, then perhaps cyber-bystanders would be inclined to reject online moral violations after experiencing elevation inducing stimuli, and thus contribute to the regulation of these violations (e.g., reporting violations or standing up to cyberbullies).

In the current online experiment, I tested the influence of mirth and elevation on cyber-bystanders' judgements of cyber-based moral violations. More specifically, I used three YouTube videos as emotional stimuli (i.e., to either induce mirth, elevation, or a neutral [control] emotion) to test the effects of mirth and elevation on judgements of three online moral violations: catfishing (i.e., using an alternate identity online for nefarious reasons), exhibitionism, and cyberbullying. Using the theoretical framework of Strohminger et al. (2011), I formulated two hypotheses. First, I hypothesized that participants who were induced with mirth would be more accepting of the cyber-based moral violations than those who were induced with elevation or the neutral (control) video stimulus. Second, I hypothesized that participants who were induced with elevation would be less accepting of the cyber-based moral violations than those who were induced with mirth or the neutral video stimulus.

In addition, I decided to include the testing of extra variables with the desire to better understand the process behind the formation of moral judgements made by cyber-

bystanders. Firstly, I tested participants' cause for concern and asked them to record their reasoning, as I believed such responses could provide support for my hypotheses. In addition, I tested the impact of negative affect elicited by the experienced violations, as previous research has claimed that positive emotions can "undo" the effects of negative emotions (Fredrickson, Mancuso, Branigan, & Tugade, 2000). No hypotheses were formulated based on these considerations due to the lack of supporting evidence.

Finally, I believed it was important to identify moral reasoning as a potential confounding variable. Moral reasoning is defined as a post hoc process, whereby a person engages in conscious reflective thought rather than intuition (Haidt, 2001). Past researchers have shown that emotions have not affected moral reasoning, which was emphasized as a separate process from moral judgement (Haidt, 2001). For this reason, I decided it was important to control for responders that reflect moral reasoning thought processes rather than intuitive judgements. To achieve this, I included a cognitive reflective task (CRT) in the experimental design, which past researchers have used to show a distinction between reflective and intuitive types of responders (Frederick, 2005).

Methods

Participants

For this experiment, I recruited an online convenience sample of 204 participants (31 men, 129 women, and 44 unidentified gender) through Facebook and Email, as well as the Grenfell Campus Participant Pool. Sixty-six participants were excluded from the experiment due to their incomplete responses on the online survey, which left a total of 138 participants (28 men and 110 women). Participants' ages ranged from 17 to 70 years. The mean age of men was 31.65 years ($SD = 12.86$) and the mean age of women was 26.52 years ($SD = 10.17$). Seventy-six percent of participants identified as Canadian, 0.5% as French, 0.5% as Korean, and 1% as American. Twenty-two percent of participants did not identify country of origin. All participants included in the study consented to the terms and conditions outlined in the online consent form.

Materials

Recruitment. The current study included a public advertisement message asking for volunteer participation to complete an online survey, an online consent form outlining the details and purpose of the study, and an online survey, all of which were constructed via surveymonkey.com. The purpose of the study was stated to be "Perceptions of Online Content and Behaviour". All recruitment materials can be found in Appendix A.

Control. To control for moral reasoning, the survey contained three open-ended Cognitive Reflective Task (CRT) questions (e.g, a bat and a ball cost \$1.10. The ball costs \$1.00 more than the ball. How much does the ball cost?; If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets?) The CRT questions can be found in Appendix B.

Videos. The survey also contained three approximately 3-minute YouTube videos that were used as the manipulation stimuli. The videos either elicited mirth, elevation, or a neutral emotional valence (control). The mirth video involved a ventriloquist comedian that used humans wearing manually controlled animated masks as her dummies. The elevation video was a commercial about a man whose good deeds dramatically impacted a young girl's life in a positive way. The neutral video involved a lesson about how to tightly roll a t-shirt. Links to the videos can be found in Appendix C.

Manipulation Check. A series of questions that measured for the appropriate emotional responses in regards to the video stimuli were asked and responses were recorded on a 9-point Likert-type scale. (e.g., How funny did you find this video? 1 = *not at all funny*, 9 = *very funny*; How warming did you find this video). All manipulation check questions can be found in Appendix D.

Vignettes. The survey also included a series of three vignettes portraying a catfishing, exhibitionism, and cyberbullying scenario. The catfishing vignette involved a woman that was dishonestly using a false identity to chat with men on an online dating site. The exhibitionism vignette involved a man who would broadcast himself masturbating on a public video chat website. The cyberbullying vignette involved someone posting a survey poll on your Facebook newsfeed, asking for a vote for the ugliest girl your town. All vignettes can be found in Appendix E.

Questionnaire. Following each vignette, participants were provided the opportunity to rate their acceptance of each vignette on a 9-point Likert-type scale, whereby 1 = *not at all acceptable* and 9 = *very acceptable*. Participants were also asked to rate their feelings toward the vignettes (i.e., negative versus positive) on a 9-point

Likert-type scale, whereby 1 = *very negative* and 9 = *very positive*. In addition, participants were asked if the vignettes gave cause for concern, which was recorded on a 9-point Likert-type scale, whereby 1 = *very concerning* and 9 = *not at all concerning*. Finally, the survey contained a series of demographic questions and a closing thank-you message. All remaining questions can be found in Appendix F.

Procedure

Prior to the current experiment, I conducted a pretest from which the emotional stimuli and the cyber-based violations for the current experiment were decided. Participants in the pretest watched three videos that elicited each emotion of interest (mirth, elevation, and neutral). A separate group of pretest participants read ten vignettes that they rated in terms of severity with which they would judge the violation. The emotional video stimuli were determined based on participants' highest mirth and positive valence ratings for the mirth condition, the highest elevation and positive valence ratings for the elevation condition, and ratings most evident of emotional neutrality (i.e., neutral emotional valence and not eliciting mirth or elevation) for the neutral condition. Two vignettes were chosen based on participants' acceptability ratings that were of intermediate severity (i.e., catfishing and exhibitionism). One vignette was chosen based on participants' acceptability ratings that were of extreme severity (cyberbullying).

For the current experiment, a survey about judgements of cyber-based moral violations was posted online. A message containing a link to the survey was shared via Facebook posts, Facebook messenger, and email, and through the Grenfell Campus Participant Pool in exchange for course credit. Participants were told that they were completing a survey about perceptions of online content and behaviour. Participants

interested in completing the survey had to click the link at which point they were directed to the informed consent screen. By clicking "next" on this screen, consent was assumed and participants were presented with the survey.

Participants were randomly assigned to watch one of the three videos: mirth, elevation, or neutral. After watching one of the videos, participants answered manipulation-check questions measuring emotional responses to the videos. Participants were then presented with, in order, the catfishing, exhibitionism, and cyberbullying vignette, rating their acceptability of and feelings toward each vignette as they were read. Participants were then asked to rate their cause for concern for each of the vignettes, and were given the opportunity to provide an open-ended response. Finally, participants were asked questions regarding demographics and were thanked for completing the survey.

Results

First, an internal validity check was completed to ensure that participants' ratings of mirth and elevation, but not ratings of neutrality, were positively valenced. This was also to establish that the neutral stimulus was an effective control. As such, a one-way ANOVA was conducted, assessing the effect of video condition (i.e., mirth, elevation, and neutral) on participants' ratings of emotional valence. Emotional valence scores were recorded on a 9-point Likert-type scale, whereby 1 = *very negative*, 5 = *neutral*, and 9 = *very positive*. Results revealed a significant main effect of condition on emotional valance, $F(2,162) = 32.95, p < .001, r = .54$.

Bonferroni post hoc tests revealed that participants in the mirth condition ($M = 6.41, SD = 2.13$) reported significantly more positive affect than those in the neutral condition ($M = 5.55, SD = 1.50$), mean difference = 0.86, $p = .011$, 95% CI [0.20, 1.52], and participants in the elevation condition ($M = 8.05, SD = 1.56$) reported significantly more positive affect than those in the neutral condition, mean difference = 2.51, $p < .001$, 95% CI [1.89, 3.12]. Bonferroni post hoc tests also showed that those in the elevation condition reported significantly more positive affect than those in the mirth condition, mean difference = 1.64, $p < .001$, 95% CI [0.97, 2.32].

Next, I conducted reliability analyses to ensure the mirth and elevation stimuli elicited participants' ratings of mirth and elevation in the appropriate conditions. The mirth scale (i.e., "how funny did you find this video?" and "how much did you find yourself laughing during this video?") had a strong reliability, $r_s = .77, p < .001$, as did the elevation scale (i.e., "how inspiring did you find this video?", "how teary-eyed were

you when watching this video?", and "how warming did you find this video?"),

Cronbach's $\alpha = .89$.

To assess my hypotheses, I conducted an initial confirmatory one-way MANOVA testing the effect of condition (mirth, elevation, neutral) on participants' acceptability of the three cyber-based moral violations (i.e., catfishing, exhibitionism, and cyberbullying). Using Pillai's trace, I did not find a significant effect of condition on participants' acceptance of cyber-based moral violations, $V = 0.05$, $F(6, 274) = 1.18$, $p = .318$, $\eta_p^2 = .03$. Additionally, in order to determine whether moral reasoning could be used as a potential covariate, I conducted a one-way MANCOVA to test the effect of condition (mirth, elevation, neutral) on participants' acceptability of the three cyber-based moral violations with responses to the CRT questions (i.e., measuring for moral reasoning) as a covariate. Using Pillai's trace, I did not find a significant effect of condition on participants' acceptance of cyber-based moral violations, $V = 0.06$, $F(6, 260) = 1.25$, $p = .282$, $\eta_p^2 = .03$.

The analyses that follow were conducted for exploratory purposes. First, based on the consideration of potential gender effects, I retested my hypothesis with gender included as a second independent variable. Specifically, I conducted a 2×3 (Gender [men, women] x Condition [mirth, elevation, neutral]) MANOVA, testing for the effect of condition on participants' acceptability of the three cyber-based moral violations. Using Pillai's trace, I found a significant effect of condition on acceptability ratings, $V = 0.11$, $F(6, 262) = 2.53$, $p = .021$, $\eta_p^2 = .06$ (see Figure 1). Follow-up one-way ANOVAs showed a significant main effect of condition on acceptability ratings of catfishing,

$F(2,132) = 3.72, p = .027, \eta_p^2 = .05$, exhibitionism, $F(2,132) = 3.26, p = .041, \eta_p^2 = .05$,

and cyberbullying $F(2,132) = 6.27, p = .003, \eta_p^2 = .09$. See Figure 1.

Bonferroni post hoc tests revealed participants who experienced elevation ($M = 2.47, SD = 1.90$) were significantly less severe in their judgements toward catfishing than those who experienced mirth ($M = 1.54, SD = 1.02$), mean difference = 0.94, $p = .046$, 95% CI [0.01, 1.86]. Participants who experienced elevation ($M = 2.06, SD = 1.86$) were significantly less severe in their judgements toward cyberbullying than those who experienced mirth ($M = 1.00, SD = 0.00$), mean difference = 1.06, $p = .003$, 95% CI [0.29, 1.84], and the neutral emotion ($M = 1.32, SD = 0.62$), mean difference = 0.74, $p = .031$, 95% CI [0.05, 1.44]. There was no effect of condition on participants' acceptance of exhibitionism.

Using Pillai's trace, I also found a significant effect of gender on participants' acceptance of cyber-based moral violations, $V = 0.07, F(3, 130) = 3.32, p = .022, \eta_p^2 = .07$. Follow-up one-way ANOVAs revealed there was only a significant main effect of gender on participants' acceptability of cyberbullying, $F(1, 132) = 9.42, p = .003, \eta_p^2 = 0.07$. Bonferroni post hoc tests revealed that men ($M = 1.85, SD = 2.21$) were significantly less severe in their judgements towards cyberbullying than women ($M = 1.07, SD = 0.77$), mean difference = 0.77, $p = .003$, 95% CI [0.27, 1.27]. Using Pillai's trace, there was no significant interaction between condition and gender on participants' acceptance of the three cyber-based moral violations, $V = 0.07, F(6, 262) = 1.67, p = .130, \eta_p^2 = .04$.

A separate exploratory 2 x 3 (Gender [men, women] x Condition [mirth, elevation, neutral]) MANOVA was used to test for the effect of condition and gender on

participants' emotionally valenced reactions toward the three cyber-based moral violations. Using Pillai's trace, I found a significant effect of condition on participants' emotionally valenced reactions, $V = 0.12, F(6, 274) = 2.78, p = .012, \eta_p^2 = .06$ (see Figure 1). Follow-up ANOVAs revealed a significant main effect of condition on participants' reactions towards catfishing, $F(2,138) = 5.10, p = .007, \eta_p^2 = .07$. However, there were no other main effects. Bonferroni post hoc tests revealed that participants who experienced mirth ($M = 2.20, SD = 1.24$) expressed significantly more negative affect towards catfishing than those who experienced elevation ($M = 3.30, SD = 1.73$), mean difference = -1.10, $p = .026$, 95% CI [-2.11, -0.10]. Similarly, Bonferroni post hoc tests revealed that those who experienced mirth ($M = 1.00, SD = 0.00$) expressed significantly more negative affect toward cyberbullying than those who experienced elevation ($M = 1.58, SD = 1.16$), mean difference = -0.58, $p = .031$, 95% CI [-1.13, -0.04], and those who experienced the neutral condition ($M = 1.71, SD = 0.91$), mean difference = -0.71, $p = .005$, 95% CI [-1.25, -0.17]. See Figure 2.

Using Pillai's trace, there was a significant effect of gender on participants' emotionally valenced reactions toward the cyber-based moral violations, $V = 0.13, F(3, 130) = 6.64, p < .001, \eta_p^2 = .13$. Follow-up one-way ANOVAs showed a significant main effect of gender on participants' emotionally valenced reactions toward exhibitionism, $F(2,132) = 7.40, p = .007, \eta_p^2 = .05$, and cyberbullying, $F(2,132) = 13.12, p < .001, \eta_p^2 = .13$. Bonferroni post hoc tests revealed that women ($M = 1.47, SD = 1.01$) experienced more negative affect towards exhibitionism than men ($M = 2.21, SD = 1.98$), mean difference = -0.74, $p = .007$, 95% CI [-1.28, 0.20], and women ($M = 1.04, SD = 0.21$) experienced more negative affect towards cyberbullying than men ($M = 1.82, SD = 1.84$),

mean difference = -0.78, $p < .001$, 95% CI [-1.130.43]. Using Pillai's trace, there was no significant interaction between condition and gender on participants' emotionally valenced reactions towards the three cyber-based moral violations, $V = 0.08$, $F(6, 262) = 1.75$, $p = .109$, $\eta_p^2 = .04$.

Finally, an exploratory 2 x 3 (Gender [men, women] x Condition [mirth, elevation, neutral]) MONOVA was then conducted to test the effect of condition on participants' ratings of cause for concern towards the three cyber-based moral violations. Using Pillai's trace, there was no significant effect of condition on participants' ratings of cause for concern, $V = 0.09$, $F(6, 260) = 2.12$, $p = .052$, $\eta_p^2 = .05$. There was no significant effect of gender on participants' ratings of cause for concern, $V = 0.06$, $F(3, 129) = 2.59$, $p = .056$, $\eta_p^2 = .06$. Nor was there a significant interaction between condition and gender on participants' ratings of cause for concern, $V = 0.03$, $F(6, 260) = 0.67$, $p = .672$, $\eta_p^2 = .02$.

Discussion

In the current online experiment, I tested the effects of mirth and elevation on judgements made in regards to cyber-based moral violations: catfishing, exhibitionism, and cyberbullying. Congruent with previous research, I hypothesized that participants who experienced mirth would be more accepting of the cyber-based moral violations than those who experienced elevation or the neutral condition, and participants who experienced elevation would be less accepting than those who experienced mirth or the neutral condition. Initial confirmatory analyses did not support my predictions. It was concluded that the experiences of mirth and elevation prior to judging cyber-based moral violations did not hold any significant influences on judgements made toward these particular cases.

On the contrary, exploratory investigations with the inclusion of gender as a second independent variable revealed divergent effects of mirth and elevation on judgements towards the cases of catfishing and cyberbullying. Specifically, participants experiencing mirth displayed greater severity in their judgements (i.e., less acceptance) while those experiencing elevation displayed less severity in their judgements (i.e., higher acceptance). This discovery contrasted with that of previous findings by Strohminger et al. (2011) and, therefore, in turn, opposed my hypotheses. Reasons for these contradicting results are not yet clear; however, I have outlined the strengths and weaknesses of the current study and provided an alternative theoretical explanation for my findings.

The basis of my hypotheses was largely influenced by the claims made by Strohminger et al., (2011). In support of their claim, Strohminger et al., (2011) had

presented participants with a series of moral dilemmas whereby participants had to judge utilitarian choices involving deontological violations, such as in the classic trolley dilemma. Their findings showed that the experience of elevation decreased the acceptance of the deontological violations (e.g., pushing a large man off a footbridge) and the experience of mirth increased the acceptance of the deontological violations. It was from these results that Strohminger et al. (2011) made their assumptions that rejection of the violations were due to increased reverence, which was elicited by the induction of elevation, while acceptance of the violations were due to increased irreverence, which was elicited from the induction of mirth.

The problem with their assumptions, however, is a matter of perspective. When people were presented with such dilemmas, they may not have been more or less permissive of the deontological violations, but, rather, they may have been more or less sensitive of the situation's utility (i.e., the benefit of others). In other words, participants' responses were not made out of concern toward the act of committing the violations but out of concern towards the people involved.

To further exemplify this matter of perspective, consider participants' open-ended responses towards the catfishing vignette as was shown in the current study. Participants' open-ended responses towards this scenario displayed either concern for the perpetrator's well-being, concern for how her behaviour could affect others, concern for both her and others, or a lack of concern, as some responses indicated her behaviour was a common online occurrence. These responses show a very important factor involved in judgement formation. Specifically, they show that people can judge the same violation based on their differing individual interpretations, which, in turn, could affect the severity and

direction of their judgements. With this in mind, I suggest that moral judgements may not only be influenced by the type of emotion experienced prior to making judgements, but that, depending on how violations are presented and or perceived, emotions could play a critical role in the direction and severity of such judgements (i.e., less acceptance versus greater acceptance).

Considering this matter, my current findings do not support the claim of reverence versus irreverence as discussed by Strohminger et al. (2011). Although, it could be argued that elevation increases reverence and, therefore, potentially increases respect for the perpetrators in the cyber-based moral violations (i.e., demonstrated by increased acceptance), the idea of mirth instilling irreverence does not hold. If mirth did indeed instill irreverence, it does not make sense that those who experienced mirth judged more harshly toward the cyber-based violations. Conversely, if mirth promoted irreverence, they should have been more accepting of these violations. In light of this, I propose that Strohminger et al.'s (2011) claim of the mediating role of reverence versus irreverence is not the case. Alternatively, I propose that the framework of the broaden-and-build theory of positive emotions best explains their findings, and supports the findings of the current study.

The broaden-and-build theory posits that certain positive emotions elicit a broadened cognitive scope encompassing more complex prosocial thought and behaviour processes (Fredrickson, 2004). For instance, joy has been linked to playfulness; contentment has been linked to appreciation and social engagement (Fredrickson, 2004). Additionally, elevation has been shown to promote the inclination to act morally, as prior studies have related the experience of elevation to increased tendencies of volunteerism

and decreased prejudice towards gay men (Algoe & Haidt, 2009; Cox, 2010; Lai et al., 2014).

In this regard, it could also be argued that the findings of Strohminger et al. (2011) show that elevation promotes compassion or consideration toward the potential victim (e.g., the large man in the trolley dilemma) when judging these utilitarian choices and, therefore, increases the likelihood to reject the utilitarian choice involving the deontological violation (e.g., pushing the large man off the footbridge). Conversely, it could be that mirth promotes utility maximization (i.e., considering the greater good) and, therefore, increases the likelihood of accepting the utilitarian choice in light of saving the many others. Considering this, I implore researchers interested in testing the influence of positive emotions in regards to utilitarian dilemmas to employ thorough testing of the broaden-and-build theory, perhaps building on some of the methods used here.

The current study shows that participants who experienced elevation were more accepting of catfishing and cyberbullying and those who experienced mirth were less accepting of these violations. In light of this, those experiencing elevation may have been more likely to show concern for the perpetrator's well-being (e.g., low self-esteem, loneliness, mental health issues), thus making less severe judgements (i.e., more accepting). On the other hand, those experiencing mirth may have been more concerned about the well-being of others (i.e., the victims of the perpetrator), thus making more severe judgements. My results show no effect of emotions on participants' cause for concern. However, in my experimental design, I had chosen to ask participants' ratings of cause for concern as a post hoc measure near the end of my experiment. This delay in time may have promoted more cognitive reflection and, therefore, perhaps because of

this, there was less emotional influence. With this in mind, further investigations should consider asking participants' cause for concern at the time of their initial experience of the violations.

Additionally, as proponents of the broaden-and-build theory, Fredrickson et al. (2000) proposed that certain positive emotions diminish the effects of negative emotions. Consistent with prior research, I would expect that an increase in mirth or elevation would change how people respond to what is happening around them in a way that broadens their cognitive scope, potentially encompassing more complex prosocial concerns and lessening their experience of negative affect towards negative stimuli (e.g., immoral acts). In regards to the current study, I tested the effects of positive emotions (i.e., mirth and elevation) on participants' negative affective responses toward the cyber-based moral violations. However, my results do not show any significant diminishing effects of negative affect due to mirth or elevation. Conversely, mirth was related to increased negative affect upon the experience of cyber-bullying. With this in mind, my results do not support the proposed "undoing" effects of positive emotions as proposed by Fredrickson et al. (2000).

Nonetheless, it is evident that further understanding of the underlying processes in judgement formations under the influence of mirth and elevation would be required to make any sound conclusions. In recognition of this, I address a few more important limitations of the current experiment. First, the types of moral violations used in the current design may not have been ideal in testing the effects of emotions, as they all elicited severe judgements across all conditions. Past research has shown that violations eliciting greater severity in judgements were less impacted by preconceived emotions (de

la Viña et al., 2015). Therefore, it is possible that the effects of mirth and elevation based on judgements of cyber-based moral violations could in fact be stronger than what was found. Second, the severity of judgements elicited by the types of violations used may have caused some floor effects, as participants experiencing mirth all showed extreme ratings of rejection towards cyberbullying. As such, this may have impeded the discovery of potential significant effects of mirth's influence on judgements toward cyberbullying. In order to avoid ceiling and floor effects and to maximize significant findings, I suggest future researchers would benefit by choosing violations that are less severe in their perceived transgressions.

Furthermore, I suggest that further investigations consider particular cohorts instead of the broad range of ages included in the current study. Approximately 27% of the world's internet users are between the ages of 15 – 24 years, and another 27% between the ages 25 – 34 years, making up a combined total of over 50% of the world's cyber-bystanders (Statistica, 2014). Considering the novelty of the internet, these cohorts could be particularly ideal to include in research in regards to cyber-based moral judgements, as they would perhaps be more normalized to various forms of online behaviours.

Lastly, I suggest that researchers should also consider gender as a potential variable when exploring the impact of emotions on moral judgements, as the particular scenarios used in this experiment could have a differential impact on men and women. Results from the current study showed that men were more accepting of cyberbullying than women. Also, women experienced more negative affect towards exhibitionism and cyberbullying than men. However, these results are not a fair comparison as the numbers

between men and women were dramatically disproportioned, as the current study included a much larger proportion of women than men (110 versus 28, respectively). As such, future comparisons should aim to include an equal number of men and women.

The evolution of research on the effects of emotions in response to moral judgements has progressed from broader investigations of emotional valence (i.e., negative versus positive valence) to more narrowed examinations of the diverging effects of specific emotions of the same emotional valence. To further the complexity of such effects, my investigation of mirth and elevation, upon comparison with previous studies, has shown contrasting outcomes of the same emotions of the same valence, specifically, mirth and elevation. As such, findings from the current study, along with prior research, contribute to a broader understanding of the impact that emotions have on moral judgements. Furthermore, while the current study provides evidence in regards to the divergent effects that mirth and elevation can have on moral judgements, there is still much to understand about the underlying processes involved in moral judgement formations. This could be especially so for that of cyber-bystanders, as the internet is bombarded with emotional stimuli and moral violations of various contexts. For this reason, I suggest that before we can begin to find effective solutions to online regulations or form interventions against the vast array of cyber-based violations, more understanding of cyber-bystanders' perceptions of moral violations and how they are influenced is paramount.

References

- Algoe, S. B., & Haidt, J. (2009). Witnessing excellence in action: The 'other-praising' emotions of elevation, gratitude, and admiration. *The Journal of Positive Psychology*, 4, 105-127. doi:10.1080/17439760802650519
- Allison, K. R., & Bussey, K. (2016). Cyber-bystanding in context: A review of the literature on witnesses' responses to cyberbullying. *Children and Youth Services Review*, 65183-194. doi:10.1016/j.childyouth.2016.03.026
- Chapman, H., Kim, D., Susskind, J., & Anderson, A. (2009). In bad taste: Evidence for the oral origins of moral disgust. *Science*, 323, 1222-1226. Retrieved from <http://www.jstor.org/stable/25471595>
- Corcoran, L., Guckin, C., & Prentice, G. (2015). Cyberbullying or cyber aggression? A review of existing definitions of cyber-based peer-to-peer aggression. *Societies*, 5, 245-255.
- Cox, K. S. (2010). Elevation predicts domain-specific volunteerism 3 months later. *The Journal of Positive Psychology*, 5, 333-341. doi:10.1080/17439760.2010.507468
- de la Viña, L., García-Burgos, D., Okan, Y., Cándido, A., & González, F. (2015). Disentangling the effect of valence and arousal on judgements concerning moral transgressions. *The Spanish Journal of Psychology*, 18, E61. doi: 10.1017/sjp.2015.66.
- DeSmet, A., Bastiaensens, S., Van Cleemput, K., Poels, K., Vandebosch, H., & De Bourdeaudhuij, I. (2012). Mobilizing bystanders of cyberbullying: An exploratory study into behavioural determinants of defending the victim. *Annual review of cybertherapy and telemedicine*, 10, 58-63.

- Frederick, S. (2005). Cognitive reflection and decision making. *Journal of Economic Perspectives*, 19, 25-42.
- Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 359, 1367–1378. <http://doi.org/10.1098/rstb.2004.1512>
- Fredrickson, B. L., Mancuso, R. A., Branigan, C., & Tugade, M. M. (2000). The undoing effect of positive emotions. *Motivation & Emotion*, 24, 237-258.
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgement. *Psychological Review*, 108, 814-834. doi:10.1037/0033-295X.108.4.814
- Haidt, J. (2003). Elevation and the positive psychology of morality. In C. M. Keyes, J. Haidt, C. M. Keyes, J. Haidt (Eds.) , *Flourishing: Positive psychology and the life well-lived* (pp. 275-289). Washington, DC, US: American Psychological Association. doi:10.1037/10594-012
- Haidt, J., Koller, S. H., & Dias, M. G. (1993). Affect, culture, and morality, or is it wrong to eat your dog?. *Journal of Personality and Social Psychology*, 65, 613-628. doi:10.1037/0022-3514.65.4.613
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52, 1280-1300. doi:10.1037/0003-066X.52.12.1280
- ITC Facts and Figures. (2016). *Mobile network coverage and evolving technologies*. 2017, April 16. Retrieved from <http://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx>

- Lazarus, R. S. (1991). *Emotion and adaptation*. Cary: Oxford University Press. Retrieved from <http://ebookcentral.proquest.com.lib.mun.ca/detail.action?docID=241656>
- Lai, C. K., Haidt, J., & Nosek, B. A. (2014). Moral elevation reduces prejudice against gay men. *Cognition and Emotion*, 28, 781-794.
doi:10.1080/02699931.2013.861342
- Lerner, J. S., & Keltner, D. (2000). Beyond valence: Toward a model of emotion-specific influences on judgement and choice. *Cognition and Emotion*, 14, 473-493.
doi:10.1080/026999300402763
- Lin, R., & Utz, S. (2015). The emotional responses of browsing Facebook: Happiness, envy, and the role of tie strength. *Computers in Human Behavior*, 52, 29-38.
doi.org.lib.mun.ca/10.1016/j.chb.2015.04.064
- Machackova, H., Dedkova, L., Sevcikova, A., & Cerna, A. (2016). Empathic responses by cyberbystanders: the importance of proximity. *Journal of Youth Studies*, 19, 793-804.
- Martin, R. A. (2010). *The Psychology of Humor*. Burlington: Elsevier Science. Retrieved from <http://ebookcentral.proquest.com.lib.mun.ca/detail.action?docID=282106>
- Schnall, S., Roper, J., & Fessler, D. M. (2010). Elevation leads to altruistic behavior. *Psychological Science*, 21, 315-320. doi:10.1177/0956797609359882
- Seidel, A., & Prinz, J. (2013). Mad and glad: Musically induced emotions have divergent impact on morals. *Motivation and Emotion*, 37, 629-637. doi:10.1007/s11031-012-9320-7

- Singh, J. J., Garg, N., Govind, R., & Vitell, S. J. (2016). Anger strays, fear refrains: The differential effect of negative emotions on consumers' ethical judgements. *Journal of Business Ethics*, doi:10.1007/s10551-016-3248-x
- Statistica. (2014). *Internet use by age group worldwide as of November 2014*. 2017, April 18. Retrieved from <https://www.statista.com/statistics/272365/age-distribution-of-internet-users-worldwide/>
- Statistics Canada. (2012). *Police-reported cybercrime in canada, 2012*. 2017, March 19. Retrieved from <http://www.statcan.gc.ca/pub/85-002-x/2014001/article/14093-eng.htm>
- Strohminger, N., Lewis, R. L., & Meyer, D. E. (2011). Divergent effects of different positive emotions on moral judgement. *Cognition*, 119, 295-300. doi:10.1016/j.cognition.2010.12.012
- Valdesolo, P., & Desteno, D. (2006). Manipulations of emotional context shape moral judgement. *Psychological Science*, 17, 476-477. doi:10.1111/j.1467-9280.2006.01731.x
- Wheatley, T., & Haidt, J. (2005). Hypnotic disgust makes moral judgements more severe. *Psychological Science*, 16, 780-784. doi:10.1111/j.1467-9280.2005.01614.x

Figures

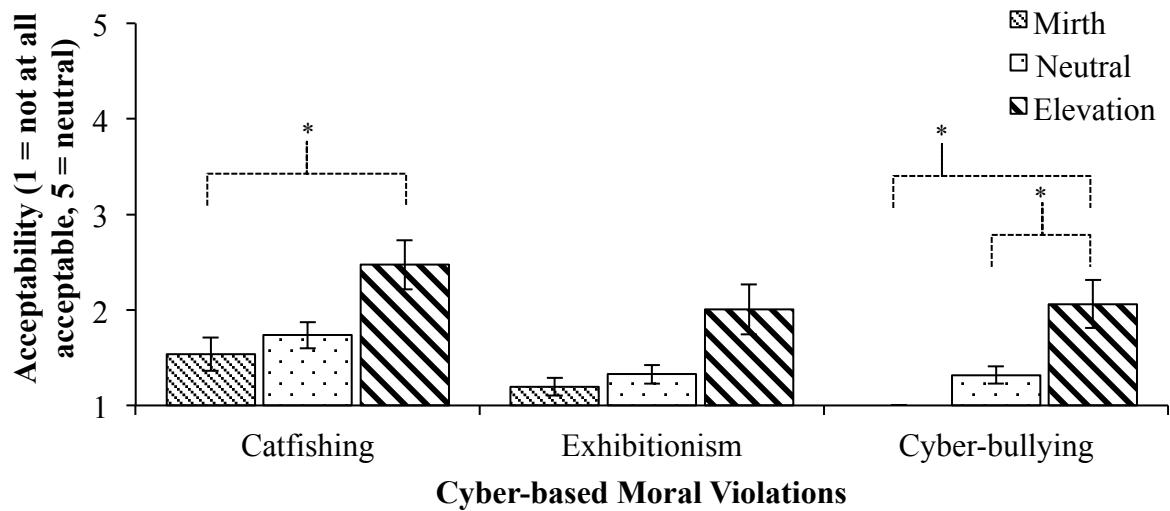


Figure 1. Overall adjusted means for participants' ratings of acceptance of cyber-based moral violations based on condition.

Note. Only five points out of the 9-point Likert-type scale are shown

* = $p < .05$

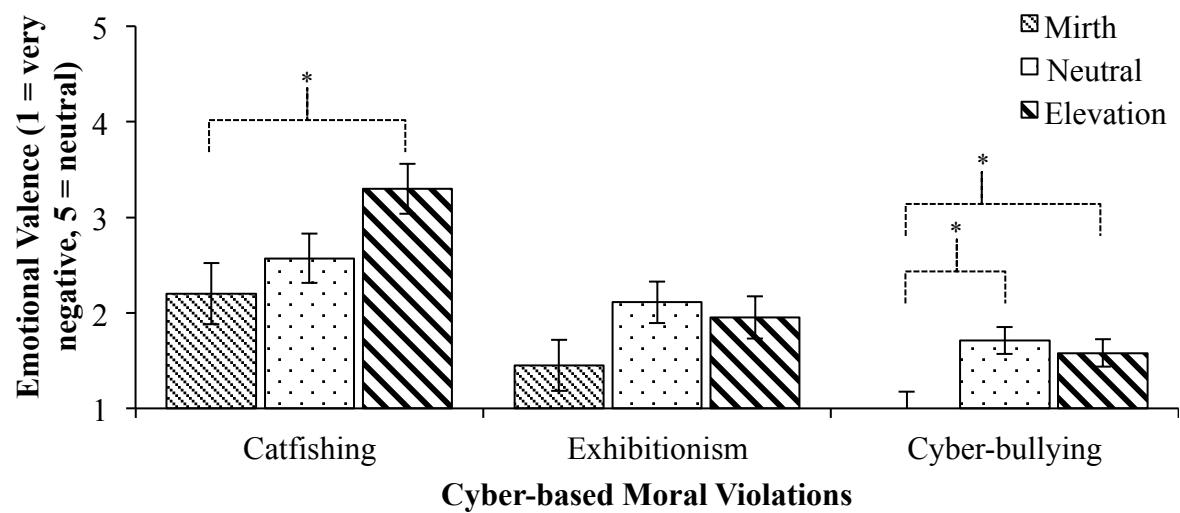


Figure 2. Overall adjusted means for participants' ratings of emotionally valenced reactions toward cyber-based moral violations based on condition.

Note. Only 5 points out of the 9-point Likert-type scale are shown

* = $p < .05$

Appendix A

Recruitment Message

As part of the requirements for my honours thesis, I am conducting an online study and am asking for your participation. Participants must be at least 19 years OR be a student enrolled in college or university. My survey pertains to perceptions of online content and behaviour. The study should only take about 10 minutes or less. It would be greatly appreciated if you could take the time. Please follow the link provided and please share with your friends. It's completely anonymous. Thanks a bunch!

Informed Consent Form

Perceptions of Online Content and Behaviour

Informed Consent Form

The purpose of this Informed Consent Form is to ensure you understand the nature of this study and your involvement in it. This consent form will provide information about the study, giving you the opportunity to decide if you want to participate. Participants must be at least 19 years of age or a post-secondary student.

Researchers: This study is being conducted by Cory Brake as part of the course requirements for Psychology 4951 under the supervision of Dr. Daniel Nadolny.

Purpose: The study is designed to investigate people's intuitive perceptions of online content and behaviour. The results will be used to write an honors thesis as part of the course requirements. The study may also be used in a larger research project and may be published in the future.

Task Requirements: You will be asked to watch a short video, read a series of scenarios, and answer a few questions. There are no right or wrong answers. We are only interested in your intuitive responses. You may omit any questions you do not wish to answer, but we would appreciate it if you would complete them all.

Duration: The survey will take approximately 10 minutes or less to complete.

Risks and Benefits: There are no obvious risks involved with your participation in this study. If you are an Introductory Psychology student at Grenfell Campus Memorial University of Newfoundland, you can receive 0.5 credits for your participation.

Anonymity and Confidentiality: Your responses are anonymous and confidential. Please do not put any identifying marks on any of the pages. IP addresses will not be collected for purposes of this study. All information will be analyzed and reported on a group basis. Thus, individual responses cannot be identified. However, this survey is presented using the American website SurveyMonkey and data storage is subject to American laws. The risks associated with data storage in the U.S. are similar to those associated with many e-mail and social media websites such as Hotmail and Facebook. For more information, you can see SurveyMonkey's privacy policy [here](#).

Right to Withdraw: Your participation in this research is totally voluntary and you are free to stop participating at any time. However, once you complete this survey and click submit, your data cannot be removed because we are not collecting any identifying information and therefore we cannot link individuals to their responses.

Contact Information: If you have any questions or concerns about the study, please feel free to contact Cory Brake at cdbrake@grenfell.mun.ca or his supervisor, Dr. Daniel Nadolny at (709) 639-4874 or dnadolny@grenfell.mun.ca. As well, if you are interested in knowing the results of the study, please contact Cory Brake or Dr. Daniel Nadolny after May 15, 2016. If this study raises any personal issues for you, please contact the Mental Health Crisis Line at 1-888-737-4668, or if you are a student at Grenfell you can contact Grenfell Campus Counseling Services at (709) 637-7919 or counsellingservices@grenfell.mun.ca and book an appointment with either Dr. Veronica Hutchings or Ms. Janis Campbell.

This study has been approved by an ethics review process in the psychology program at Grenfell Campus, Memorial University of Newfoundland and has been found to be in compliance with Memorial University's ethics policy.

By proceeding to the next page, consent is implied, as is the fact that you are at least 19 years of age or a post-secondary student.

Appendix B

Cognitive Reflective Task

1. A bat and a ball cost \$1.10 in total. The bat costs \$1.00 more than the ball. How much does the ball cost? _____ *cents*
2. If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets? _____ *minutes*
3. In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake? _____ *days*

Appendix C

Links to Emotional Video Stimuli

Elevation Video

<https://www.youtube.com/watch?v=cZGghmwUcbQ>

Mirth Video

<https://www.youtube.com/watch?v=EADGMYpUa6I>

Neutral Video

<https://www.youtube.com/watch?v=so93nqxZLjM>

Appendix D

Manipulation Checks for Emotional Valence, Mirth, Elevation, and Neutral

Valence

Overall, did you have negative or positive feelings when watching this video?

Very negative 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 Very positive

How engaging did you find this video?

Not at all engaging 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 Very engaging

Elevation

How inspiring did you find this video?

Not at all inspiring 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 Very inspiring

How teary-eyed were you when watching this video?

Not at all teary 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 Very teary

How warming did you find this video?

Not at all warming 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 Very warming

Mirth

How funny did you find this video?

Not at all funny 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 Very funny

How much did you find yourself laughing during this video?

Not at all laughing 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 Extreme laughter

How much did you find yourself smiling during this video?

Not at all smiling 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 Very smiley

Neutral

How interesting did you find this video?

Not at all interesting 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 Very interesting

Overall, did you think that this clip had a negative or a positive message?

Very negative 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 Very positive

Appendix E

Vignettes of Cyber-based Moral Violations

1. ***Catfishing***: Dianne is self-conscious about her appearance. She joins a dating website and chooses not to post a picture of herself. Instead, she uses a picture of a female model and takes on that persona while talking to men. She does not tell men that she is not the woman in the picture because she likes the attention.
2. ***Exhibitionism***: Steve is 33 years old and an avid user of chatroulette.com (a social webcam viewing network). The site explicitly states no nudity allowed and that users must be over the age of 18. Even though these rules are stated, many younger teens use the service. Every now and then Steve gets off on broadcasting himself masturbating while random strangers view his penis.
3. ***Cyberbullying***: A survey poll is shared by someone on your Facebook timeline asking your vote for the most ugly person in your town.

Appendix F

Post Vignette Questions

According to you, how acceptable was the exhibited behaviour in the scenario?

Not at all acceptable 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 Very acceptable

Overall, did you have negative or positive feelings when reading the scenario?

Very negative 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 Very positive

According to you, does the exhibited behaviour give cause for concern?

Not at all concerning 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 Very concerning

What is your age? (*Open-ended or Drop down menu*)

What is your gender? (*Open-ended or Drop down menu*)

How engaged were you while completing the survey?

Not at all engaged 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 Very engaged

Did you watch the entire video? *Yes – No*

Did you see the video before? *Yes – No*

What country do you reside? (*Open-ended*)

What province/territory/state do you reside? (*Open-ended*)

If so, why or why not? (*Open-ended*)

Closing Message

Thanks for your participation!! ☺ If you have any questions or concerns about the study, please feel free to contact Cory Brake at cdbrake@grenfell.mun.ca or Dr. Daniel Nadolny at (709) 639-4874 or dnadolny@grenfell.mun.ca. If this study raised any personal issues for you, please contact the Mental Health Crisis Line at 1-888-737-4668, or if you are a student at Grenfell you can contact Grenfell Campus Counseling Services at (709) 637-7919 or counsellingservices@grenfell.mun.ca and book an appointment with either Dr. Veronica Hutchings or Ms. Janis Campbell. Have a great day!