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## **CONFRONTED WITH BULLYING WHEN YOU BELIEVE IN A JUST WORLD**

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## ABSTRACT

Bullying has been recognized as a phenomenon that detrimentally affects the lives of many, and researchers continue to explore its various potential influences and correlates. Among such correlates that have been examined, are scales measuring the belief in a just world (BJW). While the BJW predicts victim blaming across a wide host of circumstances, both the personal BJW and the global BJW have been found to correlate positively with empathetic attitudes toward bullying. However, the global BJW's relation to bullying has only been examined in one study that used an explicit five-item measure to capture attitudes toward bullying. The current two studies further examined the BJW's relation to bullying, but instead of using an explicit attitude measure, exposed participants to vignettes that described scenarios of bullying, and measured participants' reactions to these vignettes. The results of both studies indicated that the global BJW predicted harsh, rather than empathic, attitudes toward bullying. Implications of these results are discussed.

*Key Terms:* Bullying, Global Belief in a Just World, Personal Belief in a Just World, Attitudes

CONFRONTED WITH BULLYING WHEN YOU BELIEVE IN A JUST WORLD

by

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B.A., Michigan State University, 2014

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Master of Science in Psychology.

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## Confronted with bullying when you believe in a just world

### **Introduction**

School bullying is a major societal problem prevalent among adolescents. The National Center for Education Statistics and Bureau of Justice Statistics (2013) reports that twenty-eight percent of U.S. students from grades six through twelve have experienced bullying or are feeling bullied. While the vast majority of bullying research is focused on school bullying among children and adolescents, bully behavior has been shown to persist into adulthood. Bullying is commonly viewed as an unfortunate hurdle of growing up that fortunately comes to an end in adult life. However, evidence for this belief is lacking. Multiple studies have shown that while the prevalence of bullying decreases as people age, it continues well past adolescence (Coyne et al., 2000; Coyne, 2011; Scott & Judge, 2013).

With its continued prevalence and heightened awareness, there has been a growing attempt in psychological research to uncover the correlates and causes of bullying (Cook et al., 2010). Multiple studies have found evidence supporting the notion that people without many friends are victimized more frequently than those with large social circles – lending support for “the friendship protection hypothesis” (Boulton et al., 1999). Evans and Eder (1993), for example, found that socially isolated middle school girls were assumed to have a host of other negative characteristics, leading to further ridicule and rejection. Other research has examined differential characteristics of those involved in bullying. Generally, bully victims tend to be individuals who present characteristics that put them at risk for being victimized. More specifically, victimized children tend to be described as shy, anxious, submissive, and physically weaker than their peers (Olweus, 1993). Roughly twenty percent of bully victims bully others (Mishna, 2012) – these “provocative victims” are often described as aggressively reactive and

angry individuals (Olweus, 1978, 2001). Dodge and Feldman (1990) found that self-reported bully victims tended to assume hostile intentions in others and generally displayed less effective social strategies than their peers. The victims in that study tended to attribute failures to internal and stable causes – indicating an internal locus of control. These findings may indicate that bully victims share a few traits often examined in contemporary personality models – namely the five-factor (Costa & McCrae, 1992) and HEXACO (Ashton & Lee, 2004) models. In a study examining school bullying and its correlations with the Italian Big Five Questionnaire, Tani et al. (2003) found that peer-nominated bully victims in Italy reported significantly higher levels of neuroticism and lower levels of friendliness (agreeableness) than their peers; no significant differences in energy (extraversion) or conscientiousness were found. Some research has indicated, however, that culture interacts with personality traits in their effects on bullying and victimization. Volk et al. (2018) for example, found that adolescents who reported getting bullied in China and Canada reported lower levels of extraversion than their peers, and perpetrators of bullying in both countries scored lower on honesty-humility and conscientiousness; the other traits varied across cultures in their prediction of bullying and victimization.

While bullying has seen increased attention, it is not always acknowledged that bullying, as a construct, can be difficult to define. In 1993, Olweus defined school bullying as “a student repeatedly exposed to negative actions by one or more students.” (p. 9) Olweus further specified three criteria that had to be met for aggressive behavior to be classified as bullying; the aggression needs to be intentional and cause the victim distress, it needs to be repeated over time, and there must be an imbalance of power between the victim and aggressor. By and large, this criterion of bullying has found consensus in the literature. Some articles on bullying, however,

do not include one or more of the points previously specified. According to Oh and Hazler (2009, p. 292), “Bullying can be seen in intentionally negative behaviours toward a victim through the use of physical, verbal or social harm.” This definition makes no mention of any power imbalance or repetition over time.

Needless to say, it can be difficult for an observer to assess whether an instance of apparent aggression is actually bullying. The word “bullying” may be condemned, but every act of bullying is subject to interpretation. In 2006, Naylor et al. found that teachers and students reported different conceptualizations of bullying. Exemplifying this, studies indicate that students report higher rates of bullying than do their parents or teachers (Stockdale et al., 2002; Bradshaw et al., 2007).

The type of aggression on display appears to play a large role in determining how people view bully behavior. Research on bullying has seen an increase in the number of studies examining subtle acts of aggression – a relatively recent phenomenon. Some of the confusion surrounding bullying can likely be attributed to whether indirect forms of aggression, such as social ostracism and gossip, should be considered bullying. Indirect bullying refers to the use of tactics of social aggression, such as social exclusion, to tarnish a victim’s reputation (Duy, 2013; Juvonen & Graham, 2014). Many researchers have incorporated acts of indirect aggression into a more inclusive definition of bullying, alongside direct acts of verbal and physical aggression (Mishna, 2012, p. 11).

There are some noteworthy demographic distinctions between indirect bullying and direct bullying. While direct aggression declines with age, indirect aggression either stagnates or increases as children grow older (Bauman & Delrio, 2006). Also, while there is overwhelming evidence that the vast majority of instances of direct aggression (particularly when they are

physical) are perpetrated by males (Craig & Pepler, 2007), certain studies indicate indirect aggression to be a tactic more commonly employed by females (Guerra et al., 2011). Other evidence, however, suggests the use of indirect bullying to be evenly distributed across the genders. Regardless, there is compelling evidence that, particularly among children and adolescents, males bully more than females (Olewus, 1993; Craig & Harel, 2004; Nansel et al., 2003). Differences in victimization between boys and girls, however, appear to be far less pronounced (Craig & Harel, 2004).

Ironically, refining the definition of bullying by including a broader range of behaviors could arguably undermine its significance – evoking the notion of “concept creep”. Research has consistently found people to be less likely to identify verbal aggression and social exclusion as bullying than physical aggression (Naylor et al., 2006; Garandeanu & Cillesson, 2006; Menesini et al., 2007). However, cases of verbal aggression, social exclusion and peer rejection have each been linked to negative, long-term psychological effects (Bauman & Delrio, 2006; Menesini et al., 2007). Despite evidence suggesting that indirect aggression can be just as detrimental to victims as direct aggression, observers tend to empathize less with victims of indirect bullying (Duy, 2013), and report indirect bullying as being less serious than cases of direct bullying (Garandeanu & Cillesson, 2006; Duy, 2013).

Social context also appears to play a role in whether behavior is deemed to be bullying. Through a series of interviews across two elementary schools, Harger (2009) concluded that teachers tended to put more emphasis on behavioral outcomes of aggressive behavior, while children focused more on the perpetrator’s intentions when assessing whether or not it was bullying. In 2000, Kolwaski similarly found that whether aggressive behavior is intended as humorous has an effect on whether people view it as bullying or playful teasing. More

specifically, children put an enormous emphasis on whether the aggressive behavior was intended to be humorous and whether it was retaliatory. While situational variables appear critical to how someone interprets aggressive behavior, various individual differences could play a role as well. This paper will examine the effect that a belief in a just world (BJW) has on interpretations of bullying.

### **The Just-World Hypothesis**

The just-world hypothesis, formulated by Melvin Lerner in the late 1960s, states that people have a tendency to believe people's actions are naturally inclined to result in fair and fitting consequences. For this reason, people will often blame victims for their suffering. In his first experiments, Lerner demonstrated this effect by having participants watch a confederate pretending to receive electrical shocks. After a certain point, participants in this study would begin to derogate the "victims" of these shocks, and derogation was greatest when the observed suffering was at its most severe. Lerner further reasoned that this belief in a just world was due to the desire to view the world as safe place. Researchers have continued to explore the "just-world hypothesis" using experimental designs. Most experimental just world research interprets results in the light of what is assumed to be general just-world reasoning (Dalbert, 2009). Some research directly measures "blaming the victim"—in other words, participants explicitly stating that the victim was responsible for what happened. Many other studies assess victim derogation, and from that, infer victim blaming (for a review, see Hafer & Begue, 2005).

Since the 1970s, research has put increasing emphasis on measuring the belief in a just world (BJW) as an individual difference, rather than a general cognitive bias, to examine its correlates. Examining BJW as personal disposition first began when Rubin and Peplau (1975) developed a 20-item Belief in a Just World Scale. Lerner was at first skeptical about the use of a

personality instrument and its ability to capture a glimpse of someone's psyche, but wrote that "a number of subsequent efforts did more to assuage my doubts about the BJW scale" (1980, pp. 139). Among such efforts were studies demonstrating that those scoring high on the BJW gave harsher sentences to dummy "criminal defendants" (Gerbasí & Zuckerman, 1975). Another found those scoring high on the BJW to go so far as blaming victims of rape (Gerbasí, Zuckerman, & Reis, 1977). Over decades of research, a high BJW has been found to predict negative attitudes toward the poor, the homeless, AIDS victims, murder victims, victims of floods, victims of domestic abuse, victims of traffic accidents, and the mentally ill (Montada & Lerner, 1998). As a result, the belief in a just world has been regarded as a deleterious viewpoint by most social psychologists.

Rubin and Peplau's twenty-item BJW measure was met with initial enthusiasm, but researchers soon voiced concern that it was actually measuring multiple constructs (Ambrosio & Sheehan, 1990), and showed low internal reliability (Couch, 1998). This sparked numerous developments of additional BJW measures (Dalbert, 2009). The seven-item Global BJW measure developed by Lipkus (1991) made great improvements to the construct's internal consistency, and has since been demonstrated as showing good internal and external validity across gender and culture (Reich & Wang, 2015).

Psychologists have interpreted the findings relating BJW scales to defensive or harsh attitudes as providing further evidence for the just-world hypothesis. However, there is a dearth of evidence suggesting that these self-report BJW measures actually capture the effects revealed in just-world experiments. Furthermore, there has actually only been one experiment to provide direct evidence for Lerner's just-world theory: that people have a need to believe that the world is just, and that if necessary, they will correct for injustices by blaming victims. In 2000,

Carolyn Hafer found evidence supporting Lerner's theory using a modified Stroop task to examine the effect innocent victims have on the belief in a just world. When participants were presented with vignettes describing acts of unresolved injustice, they were slower to identify justice-related words than those who read vignettes where the injustice was resolved. This indicated that, as Lerner theorized, people use cognitive resources to correct for injustices when they are faced with unjust acts. In the limitations section, however, Hafer does note that this conclusion, like most conclusions in this line of research, bases itself upon the assumptions of just-world theory. It is possible that the news story simply caused participants to hesitate in response to justice-related words not because it threatened a tendency to see the world as just, but because it threatened other specific justice-related beliefs.

### **Belief in a Just World: For the self and for others**

Do scores on BJW measures only capture one's sense of the "just world" as it relates to other people? Rubin and Peplau's General BJW questionnaire items do not specify whether the scale's items apply to others or to the respondents themselves. Perhaps, when filling out such a scale, participants would view the "just world" as a social contract to govern their own behavior. Findings from some early BJW experiments indicate this to be the case. Zuckerman (1975), for example, found that those students who scored high on the BJW were more likely to participate in another student's research project, but there was a catch. They only engaged in these seemingly selfless acts on exam weeks. It appeared they were acting out of a belief in ultimate justice, expecting to be rewarded with high scores on their exams. Rubin and Peplau's (1973) results similarly suggest that those with a strong BJW believe the world to be fair to themselves. After young men were placed into a Draft Lottery, they reported lower levels of self-esteem. The

authors interpreted this finding to indicate that the men devalued themselves and saw themselves as deserving such fates.

In 1996, Lipkus et al. constructed a measure of a personal belief in a just-world (personal BJW). They claimed it to be distinct from the global belief in a just-world (global BJW). Those who express high personal BJW scores tend to believe that the world treats them fairly; those with a strong global BJW tend to believe that *other* people deserve their fates. Measures of these two aspects of just-world beliefs correlate positively (e.g.,  $r = .56$  to  $r = .59$ ), but are predictive of different phenomena (Lipkus et al., 1996). Since its conception, the BJW has been theorized to relate to social attitudes and judgements. Unlike the global BJW, the personal BJW does not independently relate to social attitudes; instead, its effects appear to be related to the self. The personal BJW has been found to independently predict positive psychosocial adjustment and subjective well-being (Lipkus et al., 1996). The personal BJW has far more positive implications than most conceptualizations of the belief in a just world. The global BJW, independent of the personal BJW, has predicted harsh attitudes towards the elderly and the poor, as well as severe punishment for juvenile delinquents (Sutton & Douglas, 2005; Bègue & Muller, 2006). It has also been shown correlate with scales of Modern Racism and Modern Prejudice toward Homosexuals (De Cuyper, 2015). These do not appear to be instances of “victim blaming”, but they do all involve harsh or tough-minded social attitudes, and corroborate the findings relating a higher BJW to less compassionate social concern.

### **The Belief in a Just World and Bullying**

In 2008, Correia and Dalbert found that adolescents who scored high on a personal BJW measure reported less bullying than their peers and more empathy towards bully victims, but they did not find a relation between the personal BJW and coming to the defense of bully

victims. Correia, Kamble, and Dalbert (2009) replicated this finding using Indian and Portuguese students, and additionally found that a high personal BJW enhanced victim (as well as perpetrator and bystander) well-being. Since the belief in a just world has been conceptualized as a social contract governing behavior, these results are in line with Lerner's just-world theory. Those with a strong personal BJW should be less likely to bully others, as they would expect to face retribution for such a violation of justice. Importantly, the latter study included locus of control as a variable, to rule out the possibility of it mediating the personal BJW's beneficial effects. The personal BJW has been found to correlate strongly with an internal locus of control (Sutton & Douglas, 2005; Correia et al., 2009). As noted earlier, bully victims tend to report having an external locus of control, or a belief that they have little influence over the events of their lives (Dalbert, 2009). The personal BJW still predicted less bully victimization even when locus of control was controlled for (Correia et al., 2009). Thus, it appears a strong personal BJW correlates with less bully victimization and greater well-being independent of one's locus of control. The researchers never controlled for measures of well-being in these studies; the possibility does remain that the personal BJW "predicts" less victimization because of its covariance with greater well-being. Victims of bullying are less likely to score high on well-being measures, as well as personal BJW. The only failure to replicate to emerge has been the personal BJW's inability to predict less peer-reported aggression or bullying among a prison sample (Lopez-Perez et al., 2016). It should be noted, however, that self-report among prison inmates is prone to socially desirable responding.

None of the studies mentioned above examined the relation between the *global* BJW and bullying. Since a global belief in a just world is not correlated with psychosocial adjustment but

predicts victim derogation (Sutton & Douglas, 2005), it is possible the researchers would have found different results had they used the global BJW instead of the personal BJW.

In 2010, Fox et al. examined the relation between the global BJW and attitudes toward bullying, hypothesizing that those who scored high in the global BJW would be more likely to express positive attitudes toward bullying. They found the opposite effect. High global BJW scores were positively associated with anti-bullying attitudes. They also found that, when controlling for global BJW, the personal BJW was not significantly correlated with attitudes toward bullying. These results were interpreted as indicating that because bullying is severe and directly observable, people with a strong BJW may be less able to justify it, and would therefore abhor acts of bullying even more than those who display low BJW scores. This led the authors to conclude that the nature of the act of injustice is what determines whether a strong belief in a just world would lead people to derogate victims. More specifically, they concluded that those with a high BJW are unlikely to blame victims when confronted with unjust acts that are severe and directly observable. This conclusion was not without precedent. In 2008, Gosse, Rourke, Belicki, and Hafer found an interaction between the global BJW and the injustice's severity. In a condition in which participants witnessed an instance of questionable injustice (in this case, it was not clear that the victim suffered), those high in the BJW indicated less concern and less inclination to speak up for the victim than those low in the BJW. In another condition in which participants witnessed a dramatic case of injustice, this effect was reversed. Those high in the BJW reported being more troubled by it, showed greater concern for the victim, and were more inclined to speak up for the victim than those low in the BJW.

Given these results, it seems the interaction between severity of injustice and the global BJW should be given further consideration. Note that Fox et al.'s measure of attitudes did not

permit them to take into account the ambiguity of bullying. Additionally, the attitude measure did not seem to capture a sense of immediacy. To measure attitudes toward bullying, participants completed five items from Salmivalli and Voeten's (2004) *Attitudes towards Bullying* scale. Specifically, these items were: 'It's the victim's own fault if they are bullied', 'Bullying makes the victim feel bad', 'One should try to help the bullied victims', 'It's funny when someone ridicules a classmate over and over again', and 'It's not bad if you laugh with others when someone is bullied'. Participants then rated these items on Likert scales ranging from 1 (strongly agree) to 5 (strongly disagree). The term "bully", or its semantic variations, were used in four of these five items. In actual social interaction, however, which behaviors constitute acts of bullying is subject to interpretation. Furthermore, "bullying" carries a very negative connotation; it implies an act of injustice. According to just-world theory, those who score high in the BJW have a strong desire to see the world as a just place and detest the idea of injustice; ironically, this may be the very reason they often resort to derogating victims when they witness unjust behaviors. If this is true, it would stand to reason that those with a strong BJW would respond negatively to items on the *Attitudes toward Bullying* scale. None of the items indicate any degree of ambiguity, but real-life data indicate disagreement as to which kinds of aggressive behaviors constitute bullying. Acts of bullying may not be obvious.

### **The Current Study**

In my research, I attempted to unravel people's interpretations of and attitudes toward bullying using vignettes. Vignettes are a commonly used technique to indirectly measure attitudes. Alexander and Becker (1978) recommended this approach, opining that it would "more closely approximate a real-life decision-making or judgment-making situation" (p. 93) than would questionnaires or surveys. This study used vignettes describing ambiguous and

unambiguous bullying behaviors, and measured attitudes toward bullying by having participants respond to these vignettes. Importantly (with the exception of one condition in Study 2), the vignettes never used the words “bully” or “bullying”; interpretation was left entirely to the participants.

If participants express anger toward perpetrators, one can assume they hold negative views towards the behaviors described in the vignettes. Another item will measure empathy towards the victims. While the BJW has consistently been demonstrated to correlate with victim blaming and derogation (Lerner & Montada, 1998), research has found no association between the global BJW and affective empathy<sup>1</sup> (Fox et al., 2010; Silver et al., 2015). In other words, it appears that those who score high on the global BJW are no more or less empathetic towards others than those who score low on the BJW. The personal BJW’s relation to empathy is less clear. A number of studies have found the personal BJW to have no correlation with empathy (Correia & Dalbert, 2008; Fox et al., 2010; Donat et al., 2016), but two found significant (positive) relations between these constructs (Silver et al., 2015; Lopez-Perez et al., 2017).

While the items assessing anger and empathy would disclose participants’ feelings towards the vignette’s characters, such items would not truly tell us if they attribute blame to the perpetrators. An additional set of items will gauge such attribution (the cognitive component of the measure). If participants indicate that the perpetrator rather than the victim is responsible for the aggressive behavior, it can be assumed that they are not engaging in victim blaming and view the perpetrator’s behavior as bullying. Participants will also respond to items reading, “I believe

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<sup>1</sup> When I refer to “empathy” here, I mean empathic concern or sympathy – experiencing the distress of others (Chismar, 1988).

*[insert scenario number]* is an example of bullying” to directly affirm whether they view the behaviors as bullying. However, this item could lead participants to believe that vignettes are meant to describe bully behavior – it could become a demand characteristic. Therefore, participants will respond to this final item only after they have responded to all the other questions for the four vignettes.

Bullying can be a complex and ambiguous behavior. Four of the vignettes will describe cases of ambiguous bullying, while another four will describe unambiguous bullying. The vignettes will also vary according to whether they display verbal or physical bullying. To attempt to ensure that it is the ambiguity of the scenarios that is driving the intended effect, rather than characteristics or actions of their characters, I included four different scenarios describing instances of ambiguous bullying. Two described instances of verbal bullying, and another two described instances of physical bullying (See Appendix A for the vignettes). The ambiguity of the verbal vignettes depend upon the findings of Harger (2009) that students did not tend to view retaliatory aggression as bullying. Creating ambiguity in vignettes involving physical aggression was a bit more difficult, but both involve instances of hostility that occur within the confines of either a gym class or wrestling. Another four vignettes described instances of obvious, unambiguous bullying behavior. All vignettes were pretested to ensure their intended level of ambiguity (See Appendix A for the vignettes)<sup>2</sup>.

The global BJW and perceived ambiguity may have an interactive effect on attitudes toward bullying. Fox et al. concluded that those with a high BJW were more likely to react negatively toward obvious, severe instances of injustice. Instantly recognizable bullying would

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<sup>2</sup> Given the lack of a concrete hypothesis in regards to gender and the effects of the study, I made all of the perpetrators and victims the same gender.

intuitively be more severe and less easy to justify than ambiguous bullying. Therefore, it seems reasonable to hypothesize that the global BJW will indeed predict negative attitudes toward bullying, but only when the bullying behavior is not open to interpretation. In the vignettes involving ambiguous bullying behaviors, past findings linking the BJW to victim blaming would suggest the opposite effect to occur; in this condition, the global BJW should correlate with positive attitudes toward bullying.

Because high scorers on the global BJW are expected to blame victims in response to ambiguous scenarios, one might also expect them to report less empathy for victims than those who score low on the global BJW. Past findings on the BJW and empathy, however, might suggest otherwise. Prior studies have found there to be no significant correlation between the global BJW and general measures of affective empathy (Fox et al., 2010; Silver et al., 2015). Thus, it is unlikely for the global BJW to emerge as a significant predictor for empathy. The correlations between the personal BJW and empathy have been mixed, with some reporting null effects (Correia & Dalbert, 2008; Fox et al., 2010; Donat et al., 2016), and others reporting a positive correlation (Silver et al., 2015; Lopez-Perez et al., 2017). It would be difficult to formulate any convincing predictions regarding the personal BJW's relation to empathy for bully victims. In the current study, two items measuring sympathy (one in regard to the victim, the other to the perpetrator) were included in the battery of items capturing "reactions to bullying" (See Appendix B for full list of items). Scale reliability analyses did not reveal their inclusion to lower the measure's internal consistency.

### **Hypotheses**

I expect a two-way interaction between the global BJW and the bullying's ambiguity. This study has three hypotheses:

1. I expect to support the findings of Fox et al., but only when participants respond to scenarios describing unambiguous, unmistakable bullying. The higher their global BJW scores, the more participants should report negative attitudes towards bullying.

2. I expect a reversal in these results when the bullying is more ambiguous in its nature. In such scenarios, the participants scoring high on the global BJW should condemn bullying *less* than participants with lower global BJW scores.

3. Consistent with the findings of Fox et al. (2010), I expect the personal BJW to have no effect on attitudes toward bullying when the global BJW is controlled for.

### **Intended Implications of the Study**

If any implications could be drawn from previous research relating the BJW to attitudes toward bullying, it would be that schools should encourage their students to view the world as a just place. Not only would such a belief enhance their well-being, but it would also decrease bullying. I believe the conclusion that people with a strong global BJW will express stronger anti-bullying attitudes may be correct to some degree, but it was derived from an assessment that overlooked bullying's ambiguity. Additionally, except for the study referenced, research has only examined bullying's relation to the *personal* BJW - a measure that does not fully capture the BJW construct (Fox et al., 2010).

Given that those who express a strong global BJW do not report higher well-being (when controlling for the personal BJW), but do consistently excuse suffering in others independent of the personal BJW (Bègue & Bastounis, 2003; Sutton & Douglas, 2005; Begue & Muller, 2006), it would seem the global BJW needs more examination in regards to bully victimization. If a global BJW predicts less condemnation of bullying in many cases, interventions implied by past research could have more negative effects on attitudes toward bullying than intended. I expect

victim blaming to emerge when the behavior is left more open to interpretation, but not when the bullying is plainly obvious. This would provide insight into the unexpected findings reported by Fox et al. The null effect of the personal BJW on attitudes toward bullying (when controlling for the global BJW) would also be consistent with past findings.

It should be noted that anti-bullying programs have not been found to be particularly successful in decreasing bullying. One meta-analysis concluded that bullying prevention programs only had modest positive outcomes, with most of the impact on attitudes and self-perceptions rather than bullying behavior (Merrell et al., 2008). This could be a reason why the personal BJW has been found to significantly predict less bully victimization; it involves self-perceptions. The global BJW, on the other hand, involves social attitudes. The findings of the study proposed here would be informative about attitudes, but as many studies in social psychology have also demonstrated, the extent to which attitudes would result in behavioral effects is unclear. Nonetheless, since data show anti-bullying programs are effective in impacting attitudes, this research's results could, theoretically, have that kind of impact.

## **Methods**

### *Design*

This study used a within-subjects design. Bully type (ambiguous vs. unambiguous) was treated as a within-subject variable – all participants read two cases of each type of bullying. The global BJW was used as a continuous variable.

### *Participants*

The sample (N=202) consisted of 202 participants from the Prolific.ac subject pool. Prolific.ac is an online platform that allows for quick data collection. Each participant read four of the vignettes. A power analysis was conducted using Cohen's moderate effect size ( $d = .50$ ), to

determine that 191 participants would be required to reach 80% power. Because this study used within-subject dependent variables, a Pearson correlation coefficient of  $r = .15$  (corresponding to the correlation between the global BJW and the difference between reactions to the ambiguous and unambiguous vignettes), roughly equivalent to  $d = .50$ , was used in this analysis. Participants were recruited from Prolific. Because the vignettes all involved college students, I included a stipulation that participants could not be over 26 years of age. They ranged from ages 18 to 26, and the average age was 21.3 years. 100 participants identified as male and 95 identified as female. Additionally, five participants marked “Other” and two marked “Prefer not to answer” in response to the question about gender.

### *Procedure*

After giving informed consent, participants completed the Lipkus (1996) scales measuring personal BJW and global BJW. These two scales were given in random order. Next participants were assigned to read the vignettes involving ambiguous and unambiguous bullying. (See Appendix A for the vignettes). Each participant read one of two sets of scenarios, two of them ambiguous scenarios and two of them unambiguous. The vignettes in each set were presented in a fixed randomized order. The final items, indicative of perceptions of bullying, were presented separately. After reading the vignettes, the participants reported their attitudes toward the perpetrators of the bullying behavior and the victims of each vignette. Angry attitudes toward the perpetrators, sympathetic attitudes toward the victims, and attributing responsibility to the perpetrators for the situations, would indicate that the participant viewed the behavior harshly and did not blame the victims for bullying. Participants then marked whether they thought each of the four vignettes exemplified bullying. During this time, participants were given an opportunity to again read over each vignette.

### *Measures*

*Belief in a Just World (Personal)*: The Lipkus et al. (1996) scale measuring the belief that the world is just to oneself was used to measure the personal BJW (e. g., “I feel that the world treats me fairly,” “I feel that I get what I deserve.”) Participants rated items on a scale from 1 (strongly disagree) to 6 (strongly agree).

*Belief in a Just World (Global)*: The Lipkus et al. (1996) scale measuring a global belief in a just world was used to measure the global BJW (e. g., “I feel that the world treats people fairly,” “I feel that people get what they deserve.”) Participants rated items on a scale from 1 (strongly disagree) to 6 (strongly agree).

*Reaction to Bullying*: Participants responded to 10 items aimed at capturing their attitudes toward the aggressive behavior in each vignette, and marked their responses on Likert scales ranging from 1 (strongly disagree) to 7 (strongly agree). The midpoint was marked “neither agree or disagree.” Six of these items indirectly measured the cognitive component of their attitudes toward bullying (e. g., “Matt’s behavior towards Chris is unacceptable;” “Chris has instigated this situation;” and “Chris is responsible for what is happening to him.”) If participants indicated that the perpetrators are responsible for the aggressive behavior, they did not appear to be blaming the victims. Two items measured participants’ affective attitudes of anger (e.g., “I feel angry at Chris”). Another two items measured participants’ feelings of sympathy, (e.g., “I feel bad for Chris.”) The five pairs of questions (one focused on the bully, one focused on the victim) were presented in a random order after each vignette, Participant responses on each of these items were averaged to form a total “Reaction” score. Responses were reverse coded where appropriate (See Appendix A for the vignettes).

*Perception of Bullying:* The item, “I believe Scenario [*insert number*] is an example of bullying” directly examined whether or not the participants viewed the behaviors presented in the vignettes to be bullying.

## Results

### Study 1

#### *Preliminary Analyses*

Scale reliability analyses revealed that items assessing attribution, anger, and sympathy could be combined to form a ten-item measure with strong internal consistencies. This measure is tentatively labeled as the participant’s “reaction” score. Because a total of eight vignettes were used, eight analyses were run (Cronbach’s  $\alpha$  ranged from .85 to .93). The final item regarding the question of bullying was highly correlated with this measure ( $r = .54$ ), and could arguably have been included in this reaction score. However, this item was analyzed separately, primarily due to the importance of its implications. It is the only item that directly captures whether the participants perceived the behavior as bullying. The global and personal BJW measures also each showed good internal reliabilities ( $\alpha = .88$  and  $\alpha = .86$ , respectively), and correlated at a predictable level ( $r = .55$ ).

The vignettes displayed their intended levels of ambiguity. Participants perceived the unambiguous vignettes as bullying ( $M = 6.51$ ,  $SD = .68$ ) far more than they did the ambiguous vignettes ( $M = 5.02$ ,  $SD = 1.20$ ;  $t(201) = 17.49$ ,  $p < .001$ ).

Regarding the personal BJW, correlations with reactions to the vignettes neared zero ( $r = -.02$ ,  $p = .78$ ). This held true across both unambiguous ( $r = -.06$ ,  $p = .39$ ) and ambiguous ( $r = .03$ ,  $p = .70$ ) scenarios. Similarly, the personal BJW did not significantly correlate with the item assessing whether the vignettes were displays of bullying ( $r = -.07$ ,  $p = .30$ ). These results support my hypothesis that the personal BJW would not affect participants’ responses to the vignettes.

Correlations between the global BJW and the first vignette (presented to the participant, not “Vignette 1”) were calculated as a check for order effects. The vignettes were presented in a random order, but it is possible that the global BJW’s hypothetical relation to reactions to bullying would diminish (or perhaps increase) if the participant “caught on” to the purpose of the study. This coefficient was  $r = -.25, p < .01$ , indicating that vignette order did not greatly influence the responses of participants.

### *Primary Analyses*

Overall, a high global BJW significantly correlated with less negative reactions in response to the bullying vignettes; in other words, high scorers attributed more blame to the victims, felt less sympathy for them, and felt less anger towards the perpetrators ( $r = -.20, p < .01$ ). Interestingly, and counter to the proposed hypothesis, there was a strong negative correlation between the global BJW and reactions to the *unambiguous* vignettes ( $r = -.26, p < .001$ ). The correlation between ambiguous vignettes and participant reactions, while in the expected direction, did not reach statistical significance ( $r = -.09, p = .20$ ). To test whether this indicated a significant interaction (opposite to the one predicted), a mixed-model linear regression was run. The results revealed a significant interaction ( $t(200) = -2.56, p = .01$ ), 95%  $BCa = [-.27, -.04]$ .

The global BJW also significantly negatively correlated with the final item, the one assessing whether the vignettes were displays of bullying ( $r = -.15, p = .04$ ). The correlations between the global BJW and perceptions of unambiguous vignettes ( $r = -.12, p = .08$ ) and perceptions of ambiguous vignettes ( $r = -.12, p = .10$ ) were nearly identical. A multi-level linear regression indicated no significant interaction ( $t(200) = 0.64, p = .52$ ).

### *Additional Analyses*

A bootstrap mediational analysis was conducted through PROCESS MACRO (Preacher & Hayes, 2014). The results indicated that participant reactions mediated the relationship between the global BJW and mean responses to the final item (See Figure 3). In this analysis, the global BJW was used as the predictor variable, reactions to bullying as the mediator, and perceptions of bullying as the dependent variable. I estimated the indirect effect ( $b = -0.10$ ) of the global BJW on perceptions using 10000 bootstrap samples, and the confidence interval did not include zero, 95% *BCa* confidence interval = [-0.20, -0.02].

Female participants reported more negative reactions to perpetrators and more empathic reactions to victims ( $M = 5.92$ ,  $SD = .57$ ) than did male participants ( $M = 5.47$ ,  $SD = .61$ ;  $t(190) = -5.27$ ,  $p < .001$ ). Similar findings have been reported across similar lines of research (Correia & Dalbert, 2008; Fox et al., 2010). Notably, however, female participants were not significantly more likely than males to identify the behaviors in the vignettes as bullying (for females,  $M = 5.82$ ,  $SD = .69$ ; for males,  $M = 5.76$ ,  $SD = .82$ ). The gender difference in reactions was not expected to impact the global BJW's overall effect – however, it did have a slight effect. The global BJW significantly negatively correlated with reactions among males ( $r = -.20$ ,  $p = .04$ ), but did not reach significance among females ( $r = -.09$ ,  $p = .44$ ). When gender was entered into a mixed linear regression as a second predictor, the confidence interval did not include zero, 95% *BCa* = [-.16, -.02], revealing the global BJW to still independently predict harsh reactions to bullying ( $t(190) = -2.15$ ,  $SE = .03$ ,  $p = .03$ ).

As noted in the Methods section, two different sets of four vignettes, each containing two unambiguous and two ambiguous scenarios, were distributed evenly across two different groups of participants. The vignettes did vary in their content, but they were conceptually similar across the two sets – I was not expecting any substantial effects to emerge between the sets. Such

effects did emerge. For the vignettes making up the first set, the correlations between the global BJW and the “is it bullying” (perception) item were not significant ( $r = .01$  for the unambiguous vignettes, and  $r = -.01$  for the ambiguous vignettes).<sup>3</sup> Responses to the second set of vignettes were entirely responsible for the negative correlation found between the global BJW and the perception of bullying ( $r = -.27, p < .01$  for the unambiguous vignettes,  $r = -.23, p = .02$  for the ambiguous vignettes). Potential explanations for these differences will be discussed.

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<sup>3</sup> However, reaction scores to the unambiguous scenarios did significantly correlate with the global BJW ( $r = -.20, p = .04$ ).

BULLYING AND THE BELIEF IN A JUST WORLD

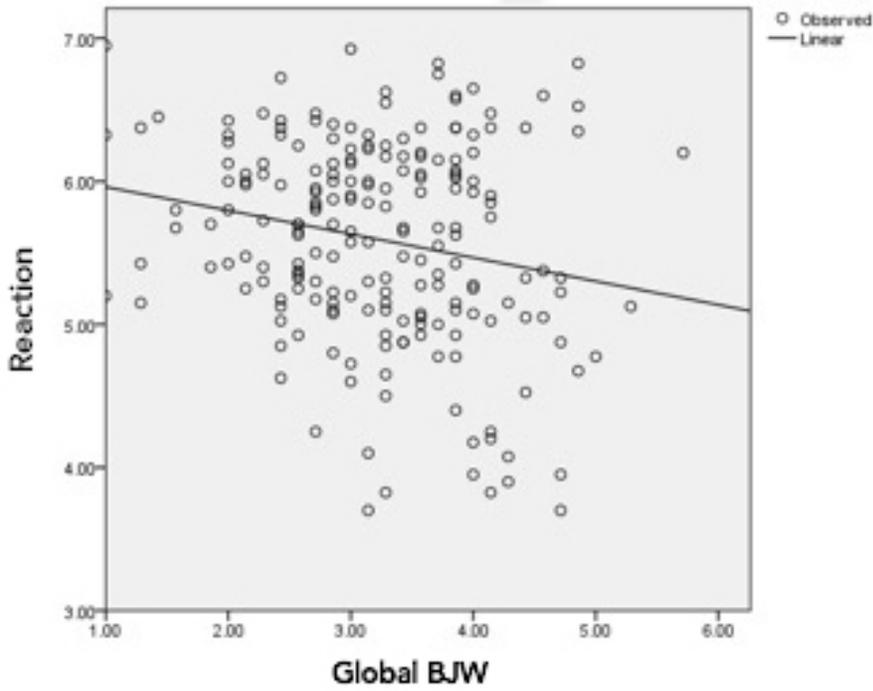
**Table 1 – Zero-Order Correlation Coefficients**

	Alpha	2	3	4	5	6	7	8	9
1. Gender (0=M, 1=F)		-.20**	-.18*	.24**	.23**	.21**	.04	.06	.01
2. Belief in a just world- Global	.89	–	.54**	-.20**	-.26**	-.09	-.15*	-.12	-.12
3. Belief in a just world- Personal	.86	(.54**)	–	-.02	-.06	.03	-.07	-.07	-.09
4. Reactions to Vignettes <sup>^</sup>				–	.89**	.88**	.54**	.50**	.48**
5. Reactions to unambiguous vignettes					–	.56**	.49**	.60**	.42**
6. Reactions to ambiguous vignettes						–	.48**	.32**	.56**
7. Identify vignettes as bullying							–	.65**	.90**
8. Identify unambiguous vignettes as bullying								–	.26**
9. Identify ambiguous as bullying									–

<sup>^</sup> Negative coefficients indicate harsh reactions to bullying.

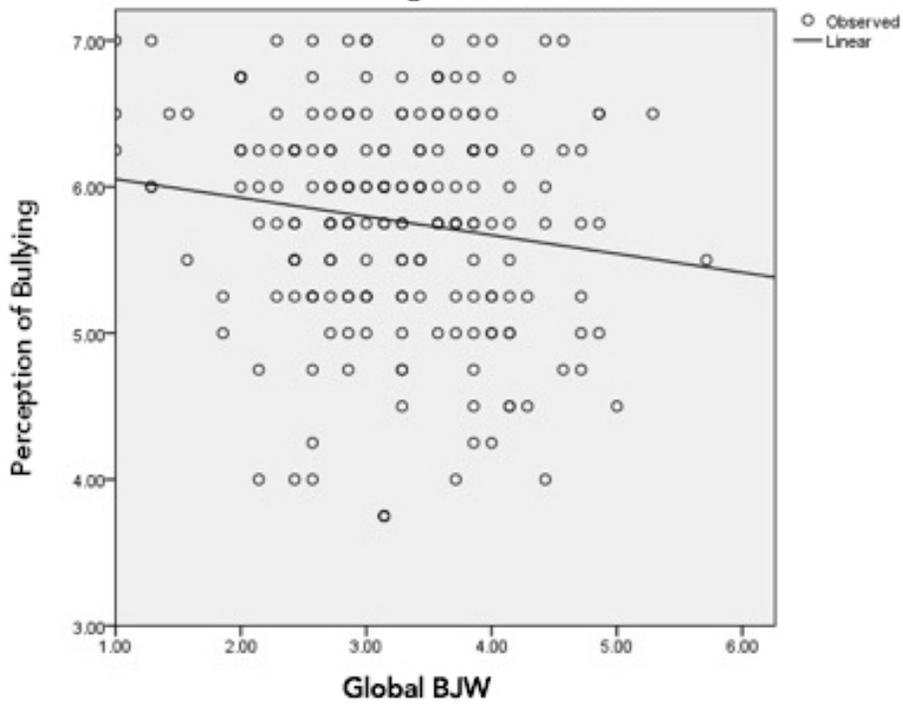
\*p < .05, \*\*p < .01

**Figure 1**



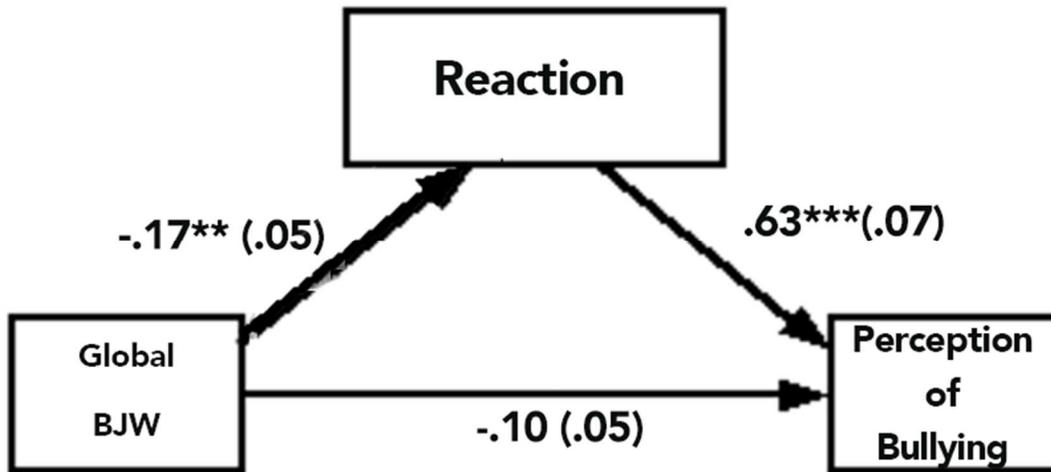
Linear relation between Global BJW and Reactions to Bullying in Study 1 ( $\beta = -.21$ )

**Figure 2**



Linear relation between Global BJW and Perceptions of Bullying in Study 1 ( $\beta = -.15$ )

**Figure 3 – Mediation Model**



*Figure 3:* The global BJW did not significantly predict perceptions of bullying ( $b = -.10$ ) independent of reaction scores.

### **Discussion**

The findings of Study 1 suggest that those with a high global BJW have a tendency to forgive and excuse bully behavior. They indicated relative blaming and disparagement of the victims, and positive attitudes toward the perpetrators. Similarly, the global BJW predicted less agreement to the item that assessed whether the vignettes exemplified bullying – indicating that high scorers were less likely to perceive the behaviors as bullying. To summarize, Study 1 suggested that the global BJW actually predicts harsh or tough-minded attitudes in regard to bullying. This contradicts the previous, limited, literature (Fox et al., 2010). The unambiguous vignettes were intended to replicate the findings of the study cited above, but they instead produced the opposite (and unexpected) effect. Those who scored high on the global BJW, relative to those who scored low, showed less negative (more forgiving) reactions to the unambiguous vignettes, but that difference was less in evidence for the ambiguous ones.

As noted on page 24, the global BJW related differently to perceptions of bullying between the two conceptually identical sets of vignettes. A discrepancy in participants' global BJW between the two sets could have potentially caused this effect ( $M= 3.31$ ,  $SD= .86$  for Set 1;  $M= 3.14$ ,  $SD= .87$  for Set 2). However, this explanation is unlikely - the groups' global BJW scores did not differ at a statistically significant level ( $t(200) = 1.38$ ,  $p= .17$ ).

Another potential explanation is that differences in the vignettes that extended beyond their ambiguity impacted participants' responses. Vignettes 6, 7, and 8 stand out as involving victims who are described as quiet, and perhaps meek (See Appendix A). This sharply contrasts with the victim presented in Vignette 1 – a seemingly charismatic individual who “boasts” about his new car. The global BJW showed its strongest correlations with Vignette 6 ( $r= -.33$ ,  $p< .01$ ), Vignette 7 ( $r= -.26$ ,  $p< .01$ ), and Vignette 8 ( $r= -.30$ ,  $p< .01$ ). Conversely, the global BJW actually correlated positively, albeit insignificantly, with Vignette 1 ( $r= .16$ ,  $p= .11$ ). This might reflect a backlash to the bullying of high-status individuals, and the derogation of relatively powerless ones. Differences involving the power or social standing of victims (or at least participants' perceptions of it) is a potential explanation for the disparate effects that emerged between the two sets. However, such differences were not hypothesized, and they bear little relevance to the broader question of whether ambiguity can differentially impact the BJW's relation to bullying. Thus, for the purposes of this project, only vignettes from the second set will be used in a follow-up study.

## **Study 2**

The results of Study 1 could possibly indicate erroneous conclusions made in past research relating to the belief in a just world and bullying. As mentioned in the introduction, only one study correlated the global BJW and attitudes toward bullying (Fox et al., 2010). That study

used a five-item “Attitudes Toward Bullying” scale. Perhaps I was correct to question the use of a scale that simply asks participants how they feel about “bullies” and “bullying”. Maybe the negative connotation associated with the word “bully” is simply more intense than the actual aggression that one might label “bullying”.

Thus, Study 2 will more closely examine how use of the word “bullying” might impact reactions to aggressive behaviors – particularly among those scoring high on the global BJW. This study will use four vignettes from Study 1; it will also include a second condition using these same four vignettes, but with the aggressive behavior explicitly labeled as “bullying”. The explicit use of the word “bullying” might buffer the global BJW’s correlation with more forgiving reactions to the perpetrators. This gives the findings and conclusion of past research another chance to replicate; it is possible that altering the ambiguity of the vignettes in this manner, rather than relying upon distinctions such as innocent versus non-innocent victims, would result in a positive relation between the global BJW and empathic reactions to bullying.

The goal of this study is to replicate the results of Study 1 and provide a more direct test of the hypothesis that a high global BJW can lead to more negative reactions to explicit bullying. Before concluding that existing research provides a misleading conclusion about the relationship between BJW and attitudes toward bullying, it seems prudent to make the bullying in the vignettes as obvious and unambiguous as possible.

### **Hypotheses**

Bullying scenarios should become less ambiguous when bullying is mentioned – thus making all of these scenarios unambiguous cases of bullying. I expect a two-way interaction between the global BJW and the mention of “bullying”. This study has two hypotheses:

1. In the vignettes in which “bullying” is never mentioned, I expect to replicate the findings of Study 1. The higher their global BJW scores, the more participants should report less negative reactions to bullying and less of a tendency to label the behavior as being bullying.

2. When the aggressive behavior is explicitly labeled as “bullying”, the nature of such behavior should be unmistakable. If this is the case, those with a high global BJW might now condemn the bully behavior more harshly than those with a low global BJW, or correlations might simply fail to reject the null. Thus, the labeling variable is expected to interact with global BJW.

## **Methods**

### *Design*

This study used the mention of “bullying” as a between-subjects variable. The global BJW was again used a continuous variable.

### *Participants*

The sample (N=197) consisted of 197 Prolific.ac users. A power analysis was conducted using Cohen’s suggested moderate effect size of  $r = .15$  as an input, determining that 191 participants would be required to reach 80% power. Each participant read four of eight vignettes. Half of the participants were assigned to read vignettes that explicitly mentioned “bullying”. I used the same recruitment method I used for Study 1. The average age for participants was 21.8 years. In terms of gender, 97 participants identified as male, 95 identified as female, three participants marked “Other”, and two marked “Prefer not to answer”.

### *Procedure*

As in Study 1, participants completed the Lipkus (1996) scales measuring the global BJW and the personal BJW. Next participants were assigned to read four vignettes, and answered a

series of 10 items associated with each of these vignettes. One group of participants read vignettes explicitly labeling aggressive as “bullying”. Another set of participants read the same vignettes, but with no mention of the word “bullying” (See Appendix B). The vignettes were presented in a fixed random order. Participants then marked whether they thought each of the four vignettes exemplified bullying.

### *Measures*

*Belief in a Just World (Global)*: The Lipkus et al. (1996) scale measuring a global belief in a just world was used to measure the global BJW.

*Belief in a Just World (Personal)*: The Lipkus et al. (1996) scale measuring a personal belief in a just was used to measure the personal BJW.

*Reaction to Bullying*: Participants responded to 10 items aimed at capturing their reactions to the vignettes, and marked their responses on Likert scales ranging from 1 (strongly disagree) to 7 (strongly agree). All items were identical to those from Study 1.

*Perception of Bullying*: The final item reading “This is an example of bullying” was presented for each of the vignettes to directly measure whether or not they perceived the vignettes as describing bully behavior.

## **Results**

### *Preliminary Analyses*

Five participants were dropped before analyzing the results of Study 2. Two of these participants had missing data, one of whom did not complete any part of the study. Another three were dropped because the gender they reported for this study did not match the gender they had marked on the Prolific website; they were dropped to circumvent the possibility that someone other than the Prolific user (i.e., a friend or romantic partner) had completed the study.

The global and personal BJW measures each showed good internal reliabilities (Cronbach's  $\alpha = .88$  for both). The BJW measures correlated at ( $r = .55, p < .001$ ). The internal consistencies for the ten items in the vignette questionnaires ranged from Cronbach's  $\alpha = .74$  to  $\alpha = .93$ .

Differences in the mean perceptions of bullying ("This is an example of bullying") between the two conditions indicated that explicit use of the word "bullying" only marginally impacted the ambiguity of bullying in the vignettes (for non-labelled vignettes,  $M = 6.02, SD = .71$ ; for labeled vignettes,  $M = 6.19, SD = .71; t(195) = 1.63, p = .10$ ). This does not necessarily indicate a failed manipulation check. While the overall difference between groups showed little difference on this measure, the possibility remains that those scoring high on the global BJW were affected differently by the term "bullying" than those who scored low. Additionally, participants agreed decisively that the vignettes labeled as "unambiguous" from study 1 were bullying ( $M = 6.56, SD = 0.55$ ), leaving little to no room for variation between two of the four vignettes from each group. When the vignettes labeled as "ambiguous" from Study 1 were analyzed separately, the t-test revealed a significant difference between groups in the expected direction ( $t(195) = -2.28, p = .02; M = 5.48, SD = 1.07$  when "bullying" was not mentioned; and  $M = 5.83, SD = 1.07$  when "bullying" was mentioned).

The vignettes labeled as "ambiguous" ( $M = 5.66, SD = 1.08$ ) and "unambiguous" ( $M = 6.56, SD = 0.55$ ) from Study 1 still significantly differed in terms of ambiguity ( $t(195) = 12.72, p < .001$ ). This was true even in the condition in which all vignettes explicitly used the word "bullying" ( $M = 5.83, SD = 1.07; M = 6.55, SD = .63; t(100) = 7.00, p < .001$ ).

### *Primary Analyses*

The global BJW correlated with negative reactions to the vignettes ( $r = -.22, p < .01$ ), replicating the results of the first study. Unlike in Study 1, in which the personal BJW showed no correlations with any measure related to bullying, the personal BJW significantly negatively correlated with this reaction score in Study 2 ( $r = -.19, p < .01$ ). However, the personal BJW did not significantly relate to reaction scores when controlling for the global BJW ( $r = -.09, p = .21$ ). The correlation between the global BJW and reaction scores also dropped when controlling for the personal BJW, but it was still very close to significance ( $r = -.13, p = .06$ ).

The global BJW also significantly correlated with less agreement to the “This is an example of bullying” items ( $r = -.27, p < .01$ ). The personal BJW correlated with these items as well, and in the same direction ( $r = -.17, p = .02$ ). Again, however, the personal BJW did not significantly predict this response when controlling for covariance with the global BJW ( $r = -.03, p = .71$ ). The global BJW’s negative correlation remained significant even when controlling for covariance with the personal BJW ( $r = -.22, p < .01$ ). Thus, the personal BJW’s relation to how one cognitively reacts to bullying appears primarily due to its covariance with the global BJW.

Regarding the use of the term “bullying”, participants who read vignettes that used this term reported more anti-bullying reactions ( $M = 5.78, SD = .62$ ) than those who read vignettes that made no explicit mention of bullying ( $M = 5.61, SD = .63$ ). However, the difference between these means was only marginally significant ( $t(195) = 1.85, p = .06$ ). In the condition in which the term “bullying” was used in the vignettes, the global BJW’s correlation with reaction scores was ( $r = -.22, p < .05$ ). Its correlation with the perception of bullying was ( $r = -.37, p < .001$ ). In the condition that never used the word “bullying”, the correlation between the global

BJW and participants' reactions was ( $r = -.22, p < .05$ ), and its correlation with the perception of bullying was weaker at ( $r = -.18, p = .08$ ) (See Table 2 for all coefficients).

Of greater interest was whether the global BJW would interact with the use of the term "bullying". Unlike Study 1, Study 2 used a between-subjects design. Thus, hierarchical regressions could be used to test for interactions between variables. This approach also accounts for the amount of variance accounted for by the predictor variables alone – thus, giving an estimation of the amount of variance that is independently explained by the predictors' interaction. Two hierarchical regressions were run to test whether these differing effects indicated a significant interaction between the global BJW and use of the word "bullying". The global BJW and condition (whether or not "bullying" was mentioned) was entered in Step 1 of the regression ( $R(1, 194) = .25, SE = .61$ ). Their interaction was entered as predictor variables in Step 2 ( $R(1, 193) = .25, SE = .61$ ). The reaction score was the dependent variable in the first regression. The results of the first hierarchical regression indicated no interaction between the mention of "bullying" and the global BJW on reactions to the vignettes. The interaction term (condition x global BJW) did not increase the amount of explained variance when it was entered into the regression (change in  $R\text{ Square} = .00, p = .91$ ). In a second regression, perception of bullying replaced reaction score as the dependent variable. The results indicated no significant interaction between the global BJW and condition on participants' perceptions of bullying ( $R(1, 194) = 0.29, SE = .68; R(1, 193) = 0.31, SE = .68; \text{change in } R\text{ Square} = .07, p = .21$ ).

The mediation effect found in Study 1 replicated in Study 2. I estimated the indirect effect ( $b = -0.13$ ) using 10,000 bootstrap samples, and the confidence interval did not include zero, 95% *BCa* confidence interval =  $[-0.19, -0.01]$ . Unlike Study 1, however, a reverse mediation effect was found in Study 2. Using the same approach to mediation, the results

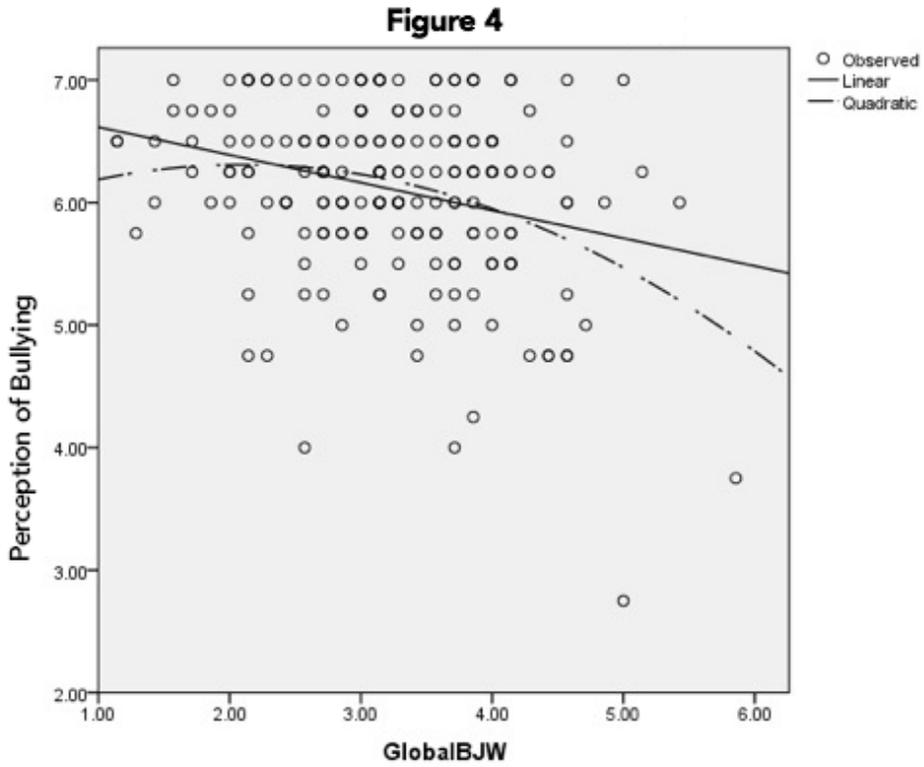
suggested that the global BJW predicted participants' reaction scores indirectly through their perceptions of bullying ( $b = -0.03$ ), 95% *BCa* confidence interval = [-0.26, -0.05]. It had been speculated that reaction scores capture relatively spontaneous, emotional responses, while perceptions of bullying more thoroughly denote reflective, cognitive appraisals. The reverse mediation effect found in Study 2 might indicate that the global BJW differentially influences responses to bullying through such mechanisms.

**Table 2 – Zero-Order Correlation Coefficients for Variables (Aggregated Across Conditions)**

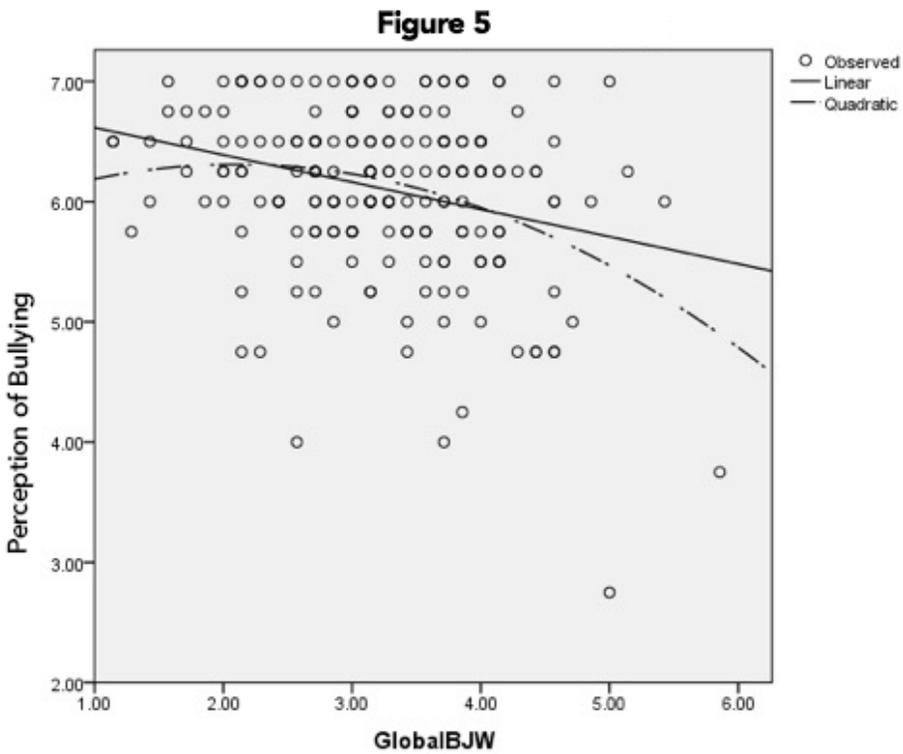
	1	2	3	4	5	6	7	8	9
1. Gender (0= M, 1= F)	–	-.09	-.02	.36**	.26**	.38**	.33**	.28**	.25*
2. Belief in a just world- Global		–	.55**	-.22**	-.27**	-.22*	-.22*	-.18	-.37**
3. Belief in a just world- Personal			–	-.19*	-.17*	-.15	-.24**	-.15	-.24**
4. Reactions to Vignettes <sup>^</sup>				–	.56**	–	–	.56**	.56**
5. Identify Vignettes as Bullying					–	.56**	.56**	–	–
6. Reactions to vignettes (Group 1)						–	.	.53**	.
7. Reactions to vignettes (Group 2)							–	.	.63**
8. Identify vignettes as bullying (Group 1)								–	.
9. Identify vignettes as bullying (Group 2)									–

<sup>^</sup> Negative coefficients indicate harsh reactions to bullying.

\*p < .05, \*\*p < .01



Linear and Quadratic relations between Global B JW and Perceptions of Bullying in Study 2



Linear and Quadratic relations between Global B JW and Perceptions of Bullying in Study 2

### *Additional Analyses*

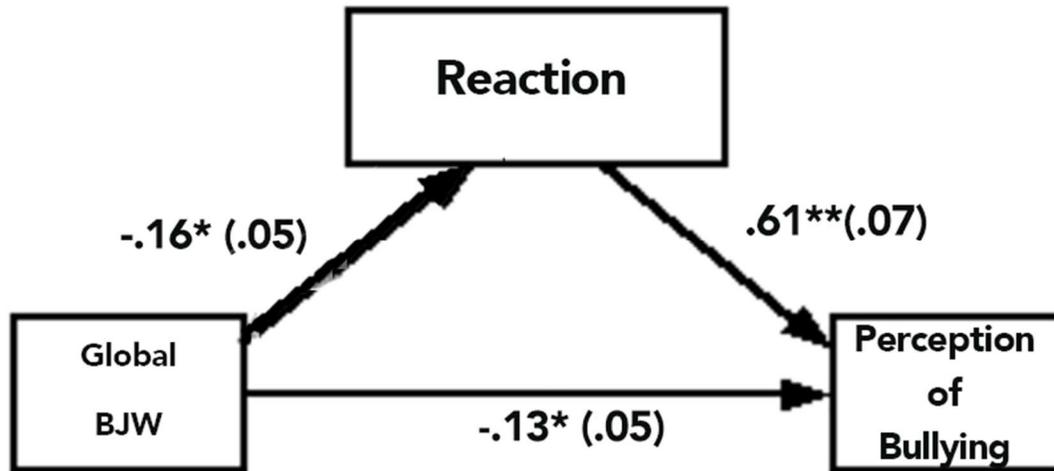
Similar to what was found in the first study, female participants indicated that they condemned the behavior presented in the bullying vignettes ( $M= 5.92, SD= .57$ ) more so than male participants ( $M= 5.47, SD= .61; t= 5.27, p< .001$ ). When female participants read non-labeled vignettes, the global BJW significantly correlated with both reaction scores ( $r= -.40, p< .001$ ) and perceptions of bullying ( $r= -.44, p< .001$ ). These correlations became insignificant when the behaviors presented in the vignettes were labeled as “bullying” ( $r= -.12, p= .45$  for reaction scores;  $r= .06, p= .71$  for perceptions of bullying).

Given the magnitude of this difference, the possible interaction between the global BJW and the mention of “bullying” was also tested separately for the two genders. It should perhaps be acknowledged that the following results were not hypothesized, and any conclusions drawn from them would be *post hoc*. Hierarchical linear regression models were used to test for interactions between variables. Among female participants, the interactions between the global BJW and labeling a behavior as “bullying” did not reach significance for their reaction scores (change in *R Square*= .02,  $p= .19$ ). Condition did however influence the global BW’s effect on their perceptions of bullying (change in *R Square*= .06,  $p= .01$ ) in the expected direction. These results indicate that labeling behaviors as bullying did buffer the relation between the global BJW and perceptions of bullying among female participants. Among male participants, this was not the case. Interactions between the global BJW and labeling a behavior as “bullying” did not near significance for either their reaction scores (change in *R Square*= .01,  $p= .46$ ) or their perceptions of bullying (change in *R Square*= .004,  $p= .50$ ). This suggests that the hypothesized interactions, should any exist, might depend upon the gender of the respondent.

When examining correlations between the global BJW and each of the individual vignettes, the correlations showed a pattern similar to the one found in Study 1. Table 2 (p. 35) presents these correlations (aggregated across condition). The global BJW predicted harsh reactions to all vignettes, but only reached significance for Vignette 2 ( $r = -.17$ ) and Vignette 4 ( $r = -.18$ ) (see Appendix B for vignettes). The global BJW significantly predicted disagreement that each of the vignettes displayed an instance of bullying.

Since the “ambiguous” and “unambiguous” vignettes used from Study 1 again showed their designated levels of ambiguity, it seemed logical to retest Study 1’s unexpected findings – in the previous study, as the bullying became more obvious, the global BJW’s relation to forgiving reactions toward bullying increased. This finding did not replicate in Study 2. To test for interaction, I used a linear mixed model with a random intercept by participant, predicting their reactions to the scenario on the basis of vignette ambiguity, the global BJW, and their interaction. The confidence interval did include zero (95% *Bca* = [-.15, .08]), indicating no interaction ( $t(195) = -.62, p = .54$ ). A regression was also run with perceptions of bullying entered as the dependent variable. Again, at a 95% confidence interval, the estimates included zero, *Bca* = [-.31, .01], indicating no significant interaction ( $t(195) = -1.81, p = .07$ ).

**Figure 6 - Mediation Model (Study 2)**



*Figure 6:* The global BJW’s prediction of perception of bullying significantly lowered when reactions score was entered into the model.

**Table 3 – Zero-Order Coefficients Between Dependent Variables and Vignettes (Study 2)**

	Vignette 1 Reaction <sup>^</sup>	Vignette 2 Reaction	Vignette 3 Reaction	Vignette 4 Reaction	Vignette 1 Perception	Vignette 2 Perception	Vignette 3 Perception	Vignette 4 Perception
Gender (0=M, 1=F)	.35**	.24**	.22**	.20**	.26**	.16*	.15*	.05
Global BJW	-.13	-.17*	-.14	-.18**	-.19**	-.20**	-.20**	-.19**
Personal BJW	-.11	-.18*	-.14	-.11	-.13	-.05	-.19**	-.04
Condition	-.02	-.01	.16*	.25**	.05	-.05	.22**	.05

<sup>^</sup> Negative coefficients indicate harsh reactions to bullying.

\*p < .05, \*\*p < .01

Condition 1= “Bullying” Not Mentioned

Condition 2= “Bullying” Mentioned

## General Discussion

Overall, the results of the current set of studies call into question the premise that the belief in a just world has an entirely beneficial relationship to bullying. In these studies, three findings were replicated: 1.) the global BJW predicted harsher reactions to victims and more forgiving attitudes towards the perpetrators; 2.) the global BJW predicted relative disagreement with the notion that the vignettes actually displayed bullying; 3.) reactions to bullying mediated perceptions of bullying.

While these results are inconsistent with the prior research relating the BJW to bullying, they are not inconsistent with the just-world literature in general. It is to be recalled that Fox et al. (2010) originally hypothesized the global BJW would correlate with reactions to bullying in a manner consistent with what was found in the current study. However, their results clashed with their hypothesis. In their discussion section, they reached a *post hoc* conclusion that the intensity of bullying made those with a high global BJW sympathize with bully victims, despite condemning victims of other predicaments across other situations. They suggested that those with the proclivity toward believing that the world is a just place might condemn acts of unjust behavior when the unjust behavior is intense enough – citing an unpublished study presented at a conference as prior evidence for this phenomenon.

Theoretically, a just-world believer faced with unjust behavior might be more motivated than others to right the wrong. The conclusion reached by Guisse et al. (2008), reiterated by Fox et al. (2010), hinges on this assumption. However, general and global just-world scales include no items regarding the desire for justice. They include items that all read similar to “I feel that the world is just place”. No item reads, “I feel that the world *should be* a just place.” The relation between the global BJW and the sensitivity to injustice has been explored – Faccenda and

Pantaleon (2011) found that those who indicated a high BJW also showed reduced levels of sensitivity to acts of observed injustice. The authors linked the BJW to a self-centered moral perspective. Furthermore, the notion that the BJW predicts sympathetic responses to acts of severe injustice actually directly clashes with the findings of studies dating back to the inception of the BJW construct. Lerner and Simmons (1966) found that as the intensity of shocks increased, so did the onlookers' derogation of the (confederate) victim. Rubin and Peplau (1975) conducted a series of studies indicating that high scores on the BJW correlated most strongly with victim blaming among emotionally involved participants, leading them to assert that: "The more important the circumstances, the more likely that an 'experience' of an injustice will be processed, construed in ways which enable the person to maintain the belief in a just world" (p. 159). Further substantiating this notion, Anderson et al. (2010) found that participants reported that victims who suffered intensely, but not those who suffered only slightly, would experience great satisfaction in later years. In other words, the severity of victims' suffering increased observers' tendency to engage in ultimate justice reasoning.

Clearly, those who score high on the BJW believe that the world is a just place. What drives this belief is less obvious. Is it a true desire for justice or a self-serving defense mechanism? The results of my studies indicate the latter. High scores on the global BJW predicted a typical response pattern – the justification of observed injustice and cruelty. It should perhaps be mentioned that it would be unwise to interpret these results as indicating any increased propensity to bully others. Any given high BJW scorer could behave in a more ethical manner than any given low BJW scorer, or vice versa. The just world motive is not rooted in cruel intention; rather, it is theorized to function to alleviate fear of potential victimization. In other words, if one rationalizes that a victim of bullying deserved such aggressive treatment, he

or she would likely feel less prone to getting bullied themselves. With that said, a tendency to justify bully behavior might imply a lower likelihood of bystander intervention. While the global BJW's relation to bullying intervention has never been tested, the personal BJW has shown no relation to self-reported helping behaviors (Correia & Dalbert, 2008).

### *Limitations*

While the two studies did result in three findings that replicated each other, these findings were not originally hypothesized. More specifically, reporting a strong belief in a just world was hypothesized to interact with bullying's ambiguity in the prediction of attitudes toward bullying. The global BJW did not show any consistent interaction with bullying's ambiguity across the two studies. Why would this be the case? Perhaps the global BJW is not strongly influenced by a scenario's ambiguity. It is also possible that ambiguity was operationalized poorly – however, the results suggest that this was unlikely. Both studies replicated the findings of the vignettes' pre-testing; nearly all participants agreed that the vignettes labeled “unambiguous” were bullying, while there was far more disagreement in responses to “ambiguous” vignettes.

It might also be worth noting that the logic of both hypotheses based themselves on a finding of a past study – a finding that was never replicated. If I had included the *Attitudes Toward Bullying* scale in one study, would I have found a negative correlation between it and the global BJW? Perhaps, the finding reported among school children (Fox et al., 2010) would not replicate in older samples of participants. In other words, maybe the global BJW would have correlated with harsh attitudes toward bullying here. Similarly, it is possible that the findings of the current two studies (which used participants ranging from ages 18 to 26) would not generalize to adolescents. Additionally, regarding external validity, the use of vignettes raises the question of whether these findings would generalize to real-world scenarios of bullying.

Another possible limitation of the current set of studies is that neither included any vignettes with female victims or perpetrators. The gender of participants did appear to influence how they responded to the vignettes. It was not expected for gender to interact with the BJW, but gender did mediate an interaction effect in Study 2 – the use of the word “bullying” only influenced perceptions of bullying among female participants. However, it is impossible to determine if this was due to the participants’ gender alone, or if the gender incongruity between participant and victims somehow contributed to the observed effect. Thus, if any further studies were run regarding this topic, vignettes depicting female characters should be included alongside vignettes depicting male characters.

Finally, the fact that participants completed the BJW measures immediately before reading and responding to the vignettes leaves open the possibility that the differences between the participants high and low in global BJW might not have emerged spontaneously—that is, they might be dependent on having just world beliefs recently primed.

### *Potential Implications*

Could these studies’ findings have an impact on intervention approaches to school and workplace bullying? As mentioned on page 14, anti-bullying programs tend to affect attitudes and self-insight more than actual bully behavior (Merrell et al., 2008). The findings of the current two studies indicate those who score high in the global BJW forgive bullying behavior. If anti-bullying programs made mention of the potential pitfalls of the just-world effect, it might help bolster a link between anti-bullying attitudes and behavior. To help illustrate this point, imagine that a student is educated about bullying and believes it is wrong. When that student sees a classmate getting bullied, he or she still could dismiss it either by derogating the victim or by downplaying its severity. In other words, the student would be acting in a manner that clashes

with his or her moral standards – essentially, what Bandura would call moral disengagement (2002), a construct that has been found to predict bullying among boys (Gini, 2007). If students are made aware of the just-world phenomenon, however, they might be more likely to catch themselves in the act of justifying the behavior, and thus be more likely to act in accordance with anti-bullying attitudes. Presumably, this would involve a greater likelihood in helping the victim. Thus, teaching people about the just-world effect could provide one overlooked remedy to the disappointing impact of anti-bullying campaigns.

## APPENDIX A

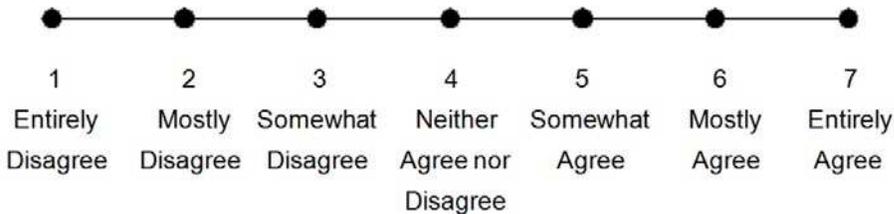
**Instructions:** Please read the vignettes below. Then rate the following statements to the degree to which you agree or disagree with them.

### *Vignette Set 1*

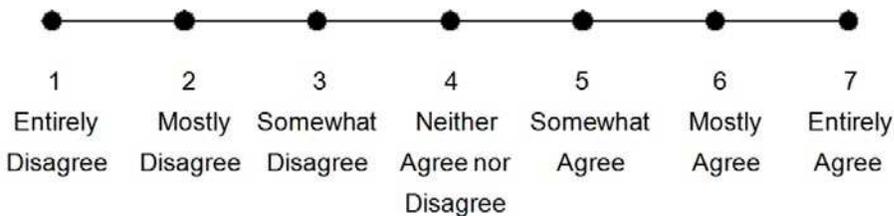
#### [Scenario 1] (*Ambiguous - Physical*)

Mark tells Eric that he's a fan of professional wrestling. Eric replies that he is too, and gets so enthusiastic about the topic that he starts practicing his wrestling moves on Mark. Mark is not too thrilled about this, and asks Eric to stop, but it takes a while for Eric to finally release Mark. Now every time Eric sees Mark he cries out "There's my wrestling buddy," and starts roughhousing with Mark. After a while Mark starts anxiously avoiding Eric, because Eric keeps persisting with this behavior—which explains all of Mark's bruises.

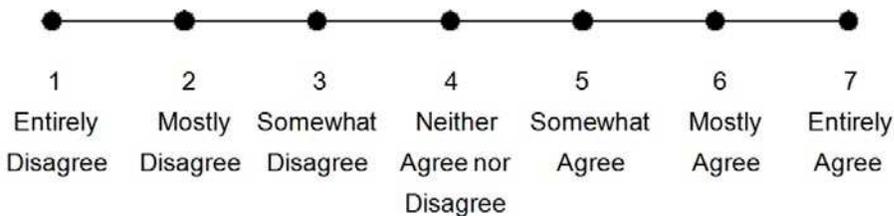
1. Mark has instigated this situation.



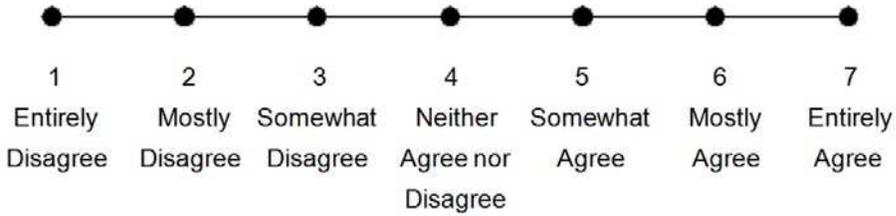
2. Eric has instigated this situation.



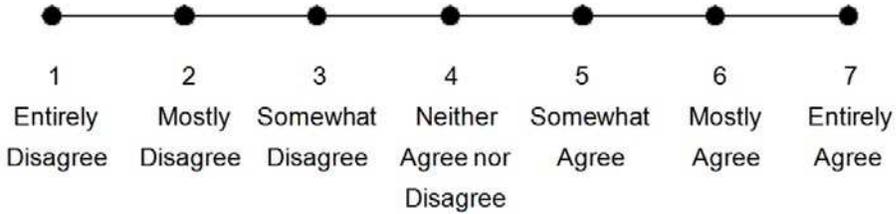
3. Mark is responsible for what is happening to him.



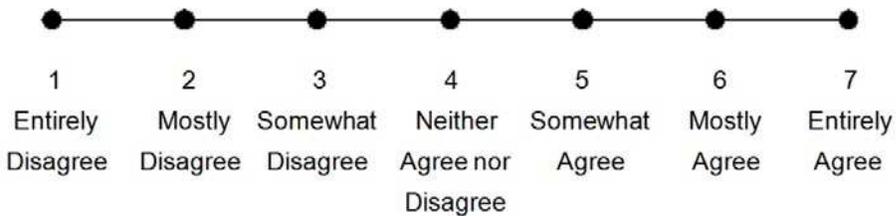
4. Eric is responsible for what is happening.



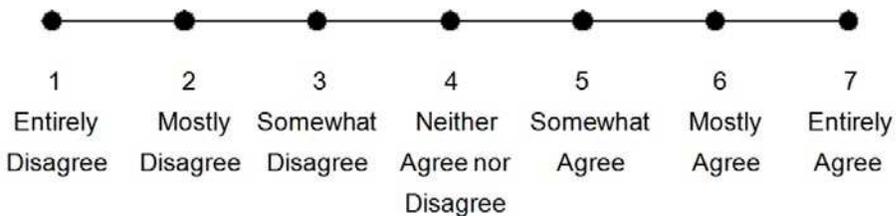
5. Mark's behavior towards Eric is unacceptable.



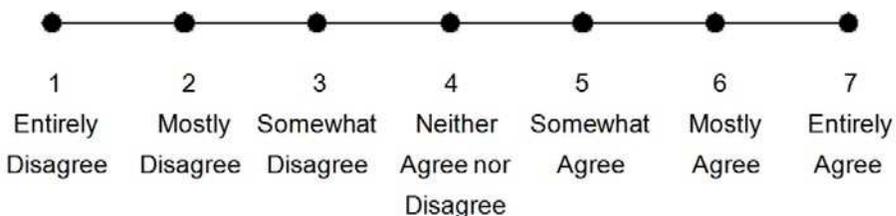
6. Eric's behavior towards Mark is unacceptable.



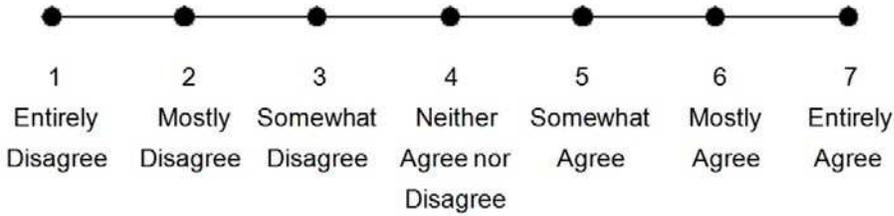
7. I feel bad for Mark.



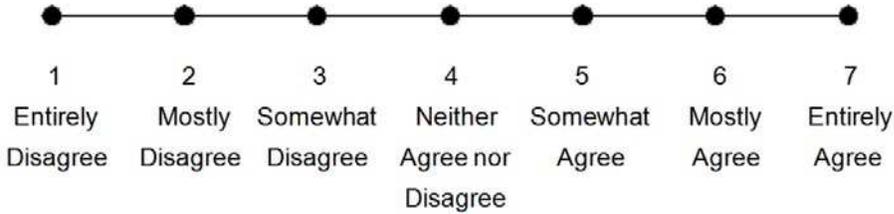
8. I feel bad for Eric.



9. I feel angry at Mark.



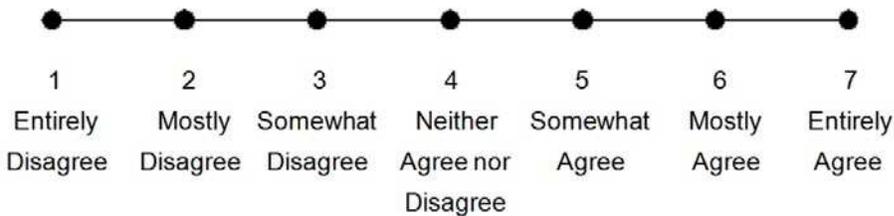
10. I feel angry at Eric.



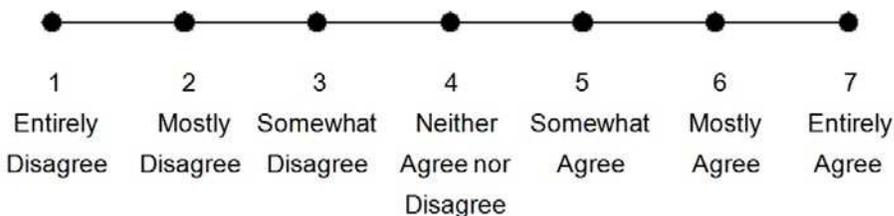
**[Scenario 2] (Ambiguous – Verbal)**

Chris lives in your dorm. One day, Chris mentions to Matt, a boy who lives across the hall, that he got a new car. A Ferrari. Matt questions this, and Chris grins, responding, “Want to see it? I’ll let you sit in it—and maybe if you’re lucky, I’ll even let you drive it.” Matt fires back, “You lost your dignity when you started driving your dad’s car. Keep this up, and you’ll lose something else.” From then on, Matt regularly mocks Chris when they pass in the hallway.

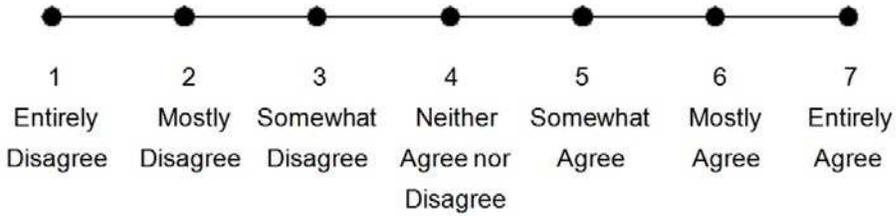
1. Chris has instigated this situation.



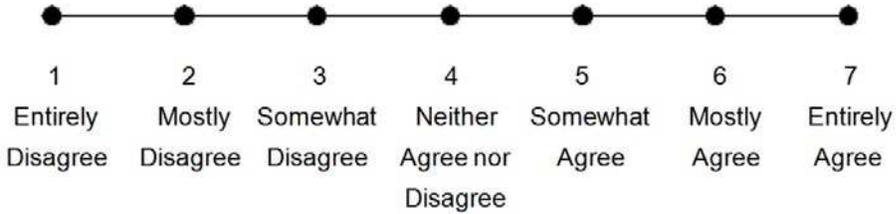
2. Matt has instigated this situation.



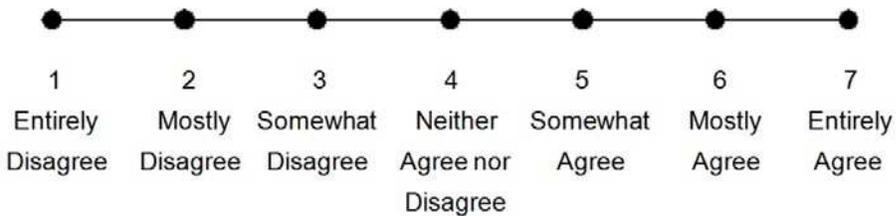
3. Chris is responsible for what is happening to him.



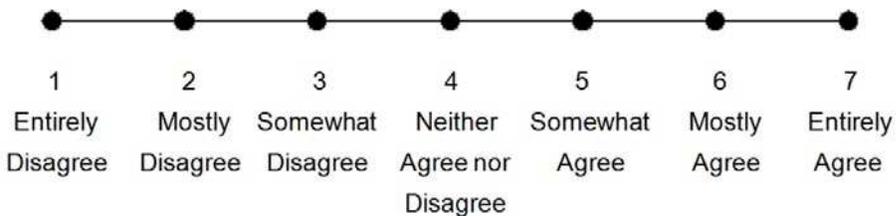
4. Matt is responsible for what is happening.



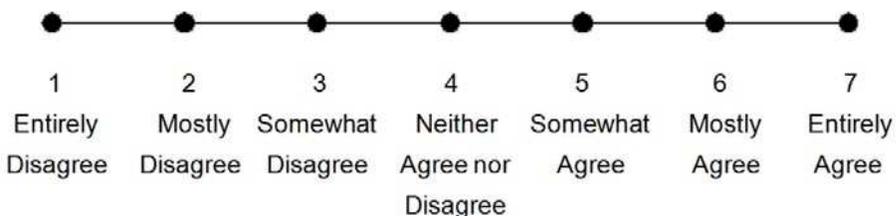
5. Matt's behavior towards Chris is unacceptable.



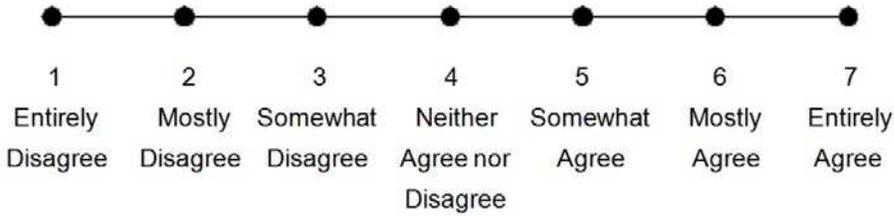
6. Chris' behavior towards Matt is unacceptable.



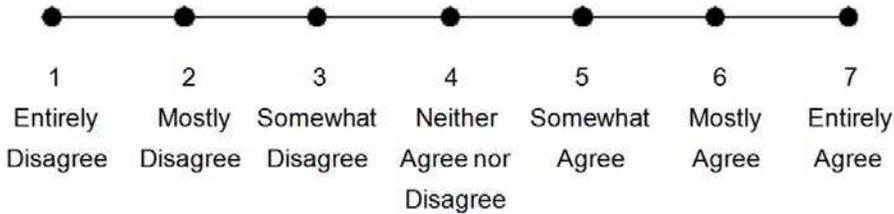
7. I feel bad for Chris.



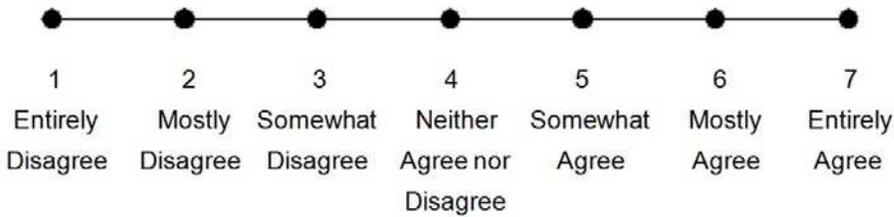
8. I feel bad for Matt.



9. I feel angry at Chris.



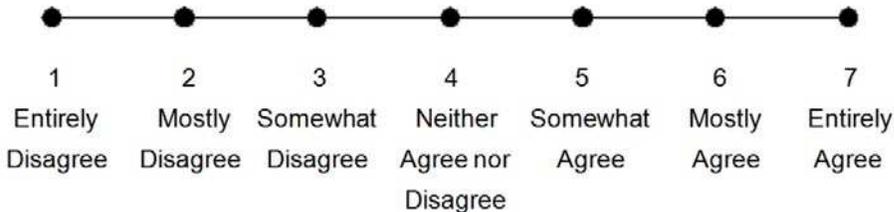
10. I feel angry at Matt.



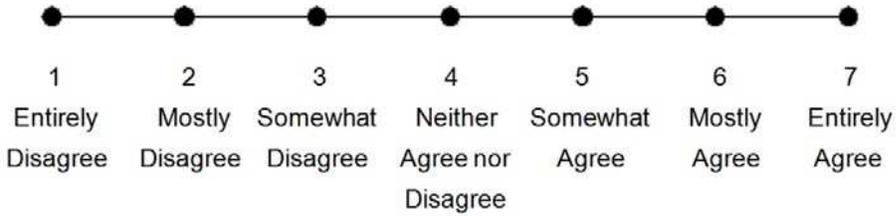
**[Scenario3] (Unambiguous - Physical)**

Joe lives a few doors down from you. One day, you see Joe leaving the library. Another guy named Tom, who lives on your floor, sidesteps a group of people to approach Joe. Joe doesn't seem to notice. Tom smirks and roughly bumps into Joe. Joe tries to ignore this as he moves past Tom, but to his dismay, Tom wordlessly shoves Joe every time he spots him on campus.

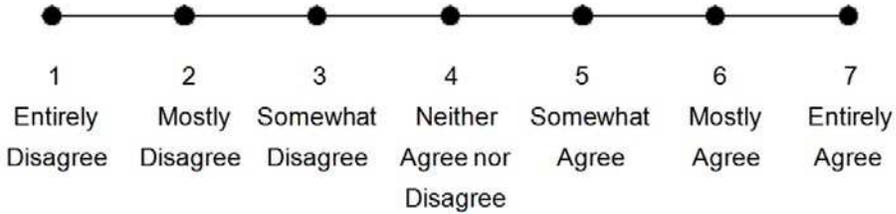
1. Joe has instigated this situation.



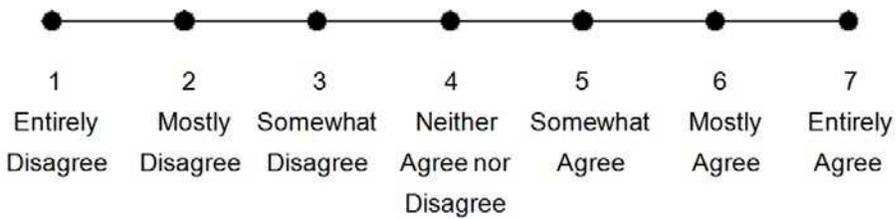
2. Tom has instigated this situation.



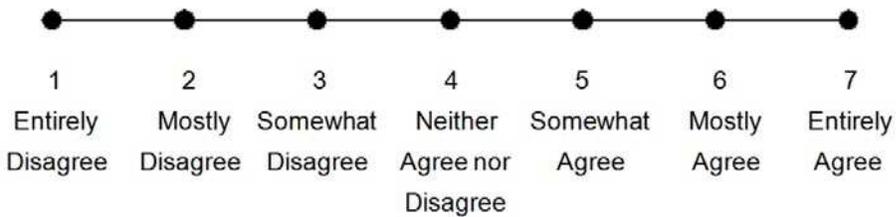
3. Joe is responsible for what is happening to him.



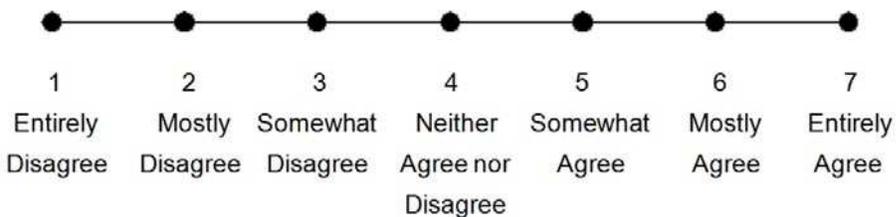
4. Tom is responsible for what is happening.



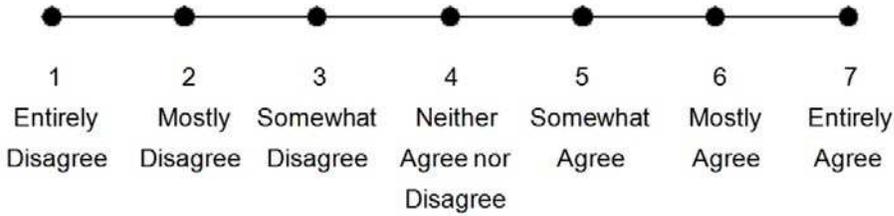
5. Joe's behavior towards Tom is unacceptable.



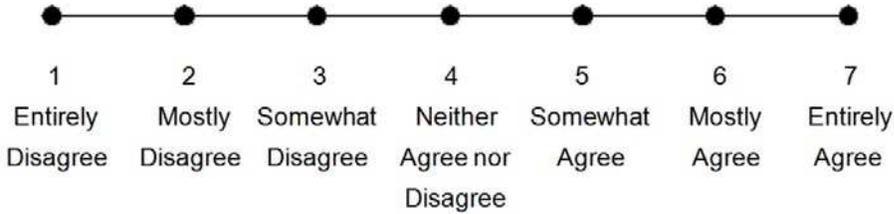
6. Tom's behavior towards Joe is unacceptable.



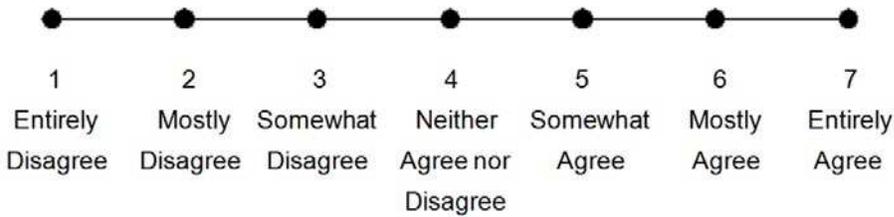
7. I feel bad for Joe.



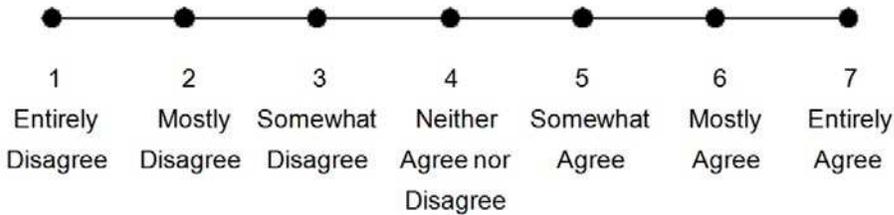
8. I feel bad for Tom.



9. I feel angry at Joe.



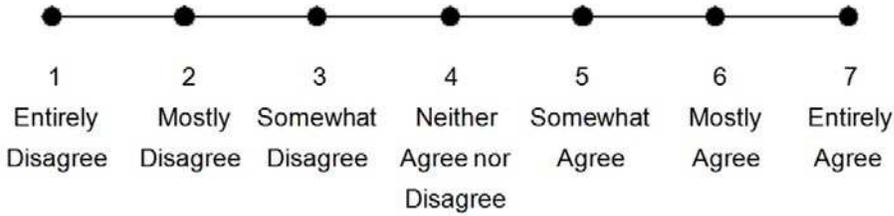
10. I feel angry at Tom.



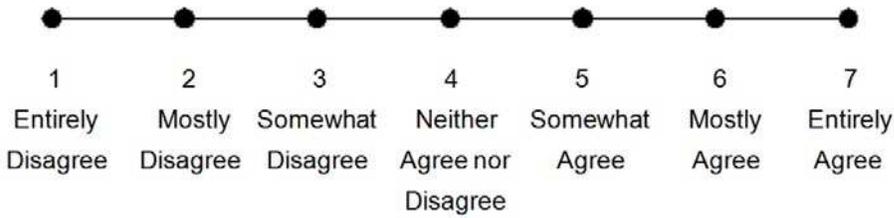
**[Scenario 4] (Unambiguous - Verbal)**

Jake is a student in your history class. One day, the professor announces that everyone must present on a topic in front of the class. Jake looks terrified, and today's not his lucky day. He is chosen to go first. As Jake walks to the podium, a classmate named Doug notices sweat stains under Jake's arms. Doug smiles and remarks, "Looks like you should've worn black today, little guy." Jake quickly glances at the stains under his arms and looks alarmed. After Jake finishes his presentation, Doug looks him in the eye and says "You are so sad." For the rest of the semester, Doug keeps making similar comments to Jake.

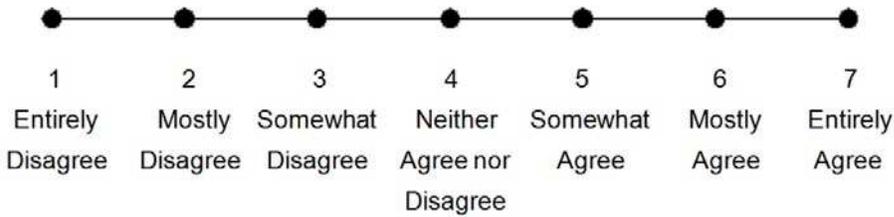
1. Jake has instigated this situation.



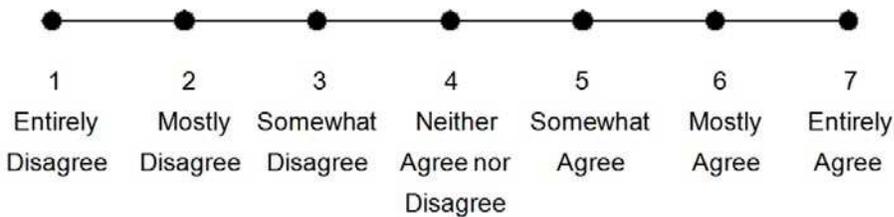
2. Doug has instigated this situation.



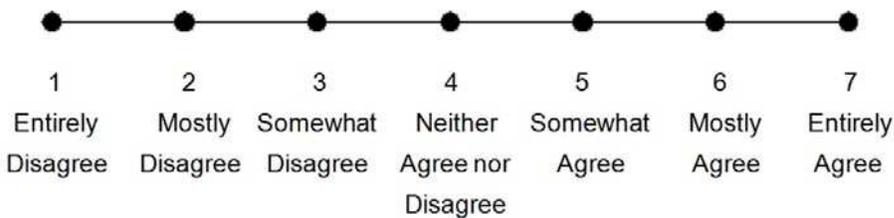
3. Jake is responsible for what is happening to him.



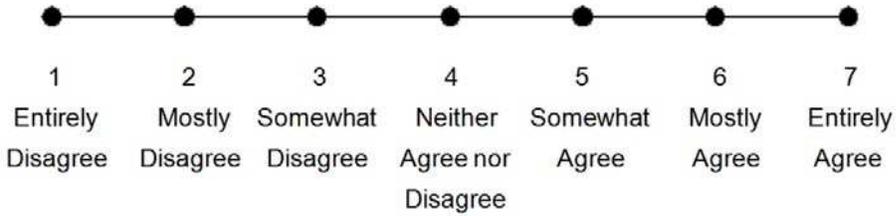
4. Doug is responsible for what is happening.



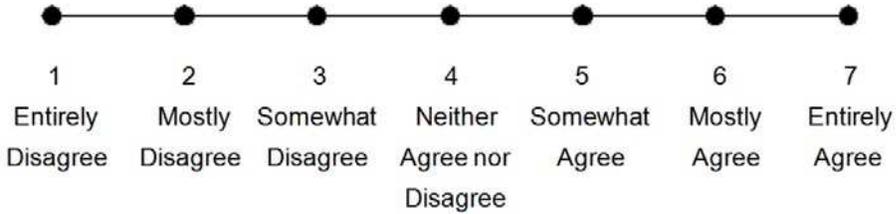
5. Doug's behavior towards Jake is unacceptable.



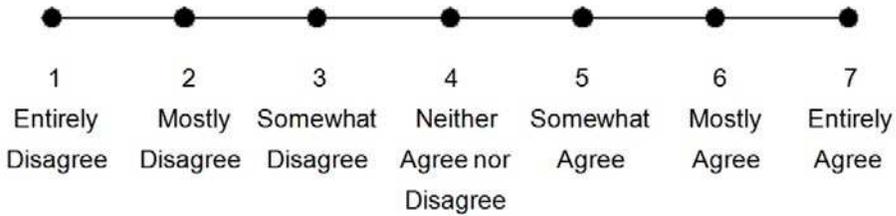
6. Jake's behavior towards Doug is unacceptable.



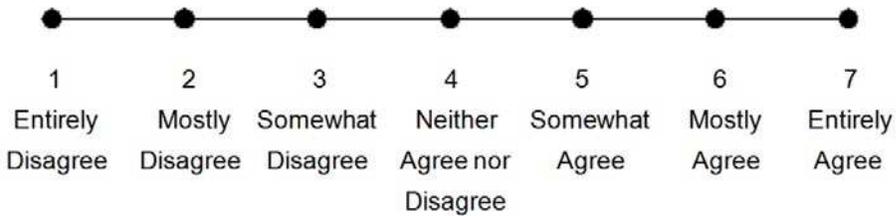
7. I feel bad for Jake.



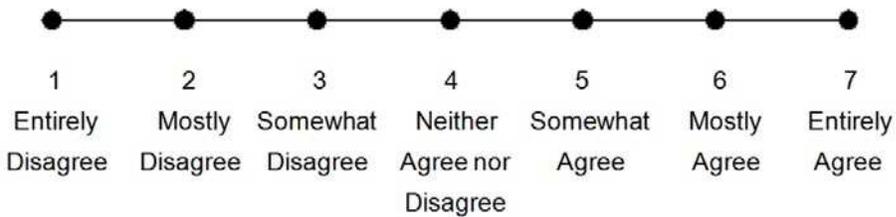
8. I feel bad for Doug.



9. I feel angry at Jake.



10. I feel angry at Doug.

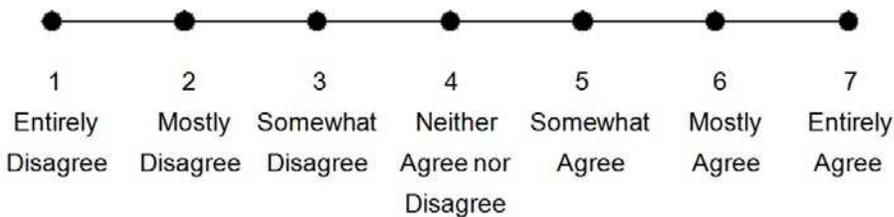


## Vignette Set 2

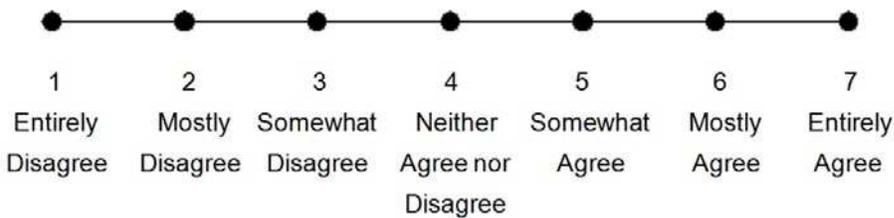
### [Scenario 5] (*Ambiguous - Physical*)

Billy hated going to gym class, and was especially unhappy when the gym teacher decided the students should play dodge ball for a few weeks. During the first game, Pete, a player on the other team, hit Billy squarely on the side of the head with the ball. Billy saw stars. The next time the class met, right after the game began, Pete again managed to hit Billy in the head with a powerful throw. Billy asked Pete if he had done so on purpose, but Pete just looked annoyed and said “Look, this is how the game is played.” On the third day of dodgeball, Pete again nailed Billy in the head 30 seconds into the game.

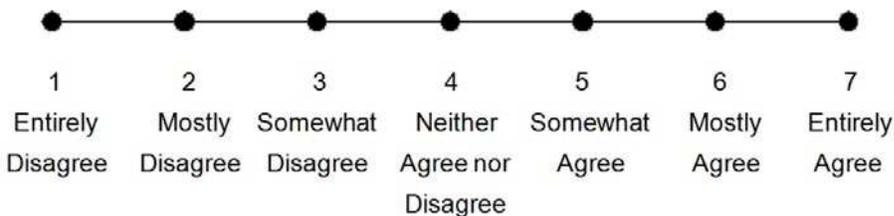
1. Billy has instigated this situation.



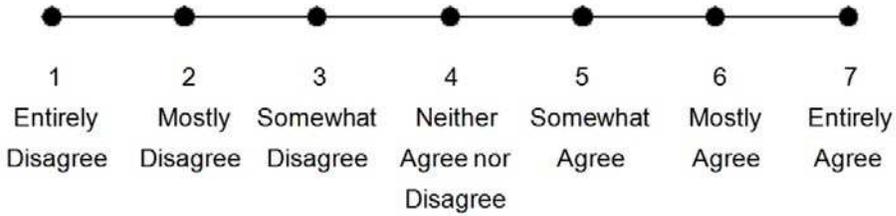
2. Pete has instigated this situation.



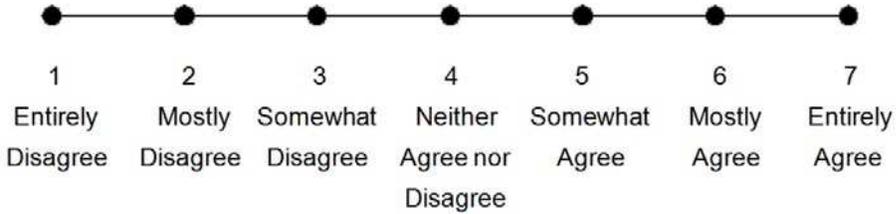
3. Billy is responsible for what is happening to him.



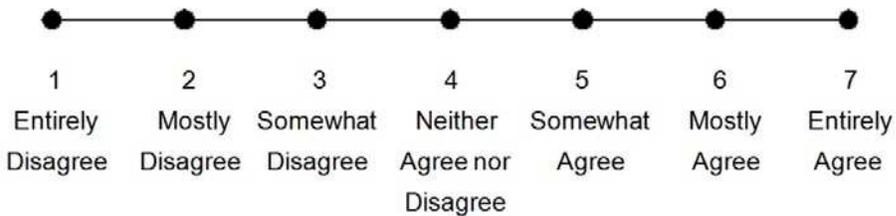
4. Pete is responsible for what is happening.



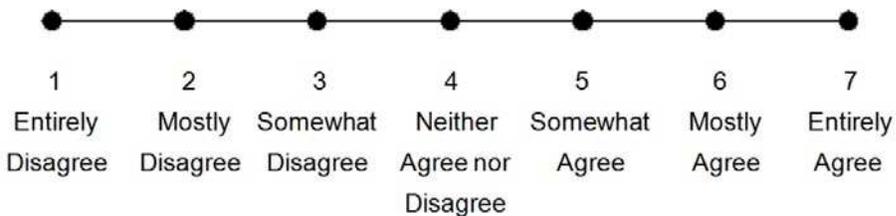
5. Billy's behavior towards Pete is unacceptable.



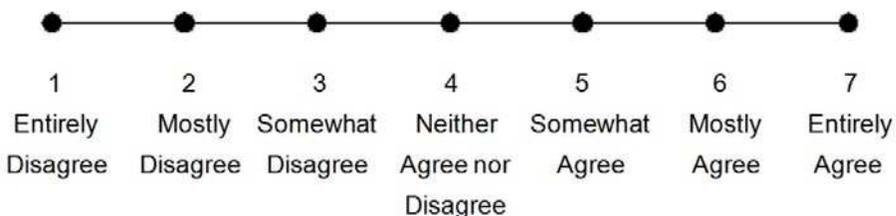
6. Pete's behavior towards Billy is unacceptable.



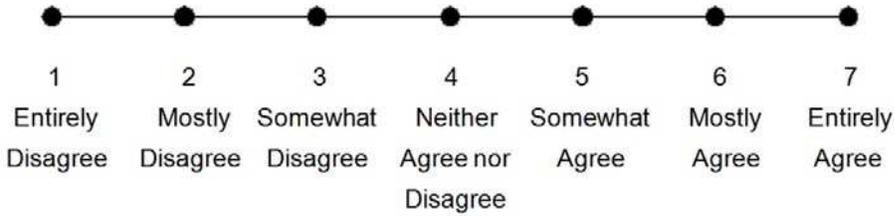
7. I feel bad for Billy.



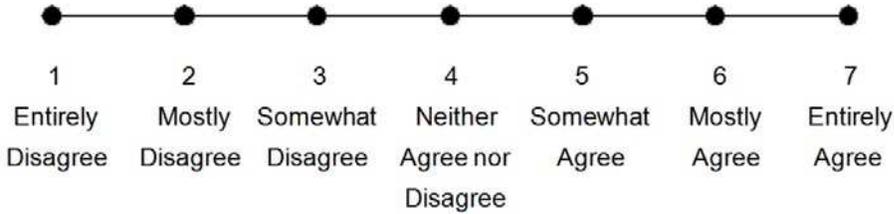
8. I feel bad for Pete.



9. I feel angry at Billy.



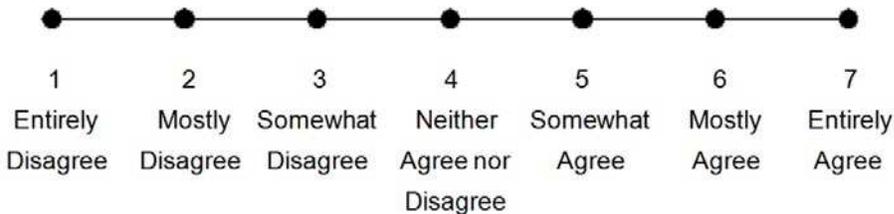
10. I feel angry at Pete.



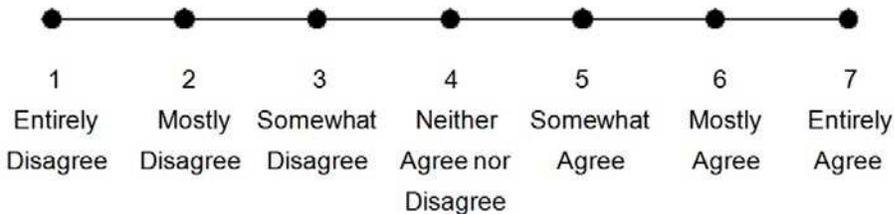
**[Scenario 6] (Unambiguous - Verbal)**

Nick is a student in your psychology class. He silently sits alone in the back corner throughout the entire course. Even during group activities, Nick sticks to himself. A classmate named Jim approaches Nick and asks if he'd like to join his group. Nick simply replies, "No". Jim then asks Nick if that was first word he managed to utter in his life. Nick looks up, startled; he has no idea how to respond. Jim now makes fun of Nick every day before class starts.

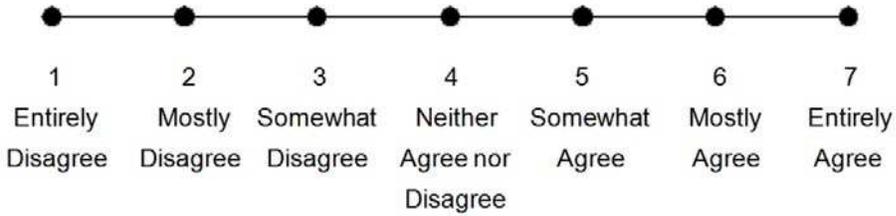
1. Nick has instigated this situation.



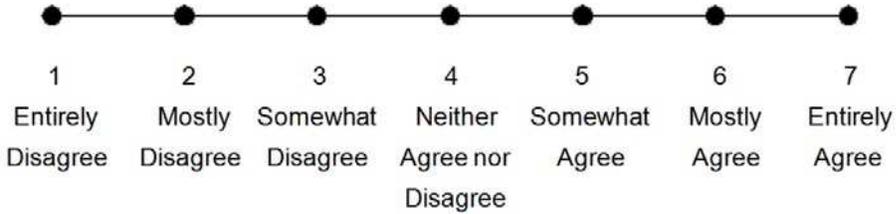
2. Jim has instigated this situation.



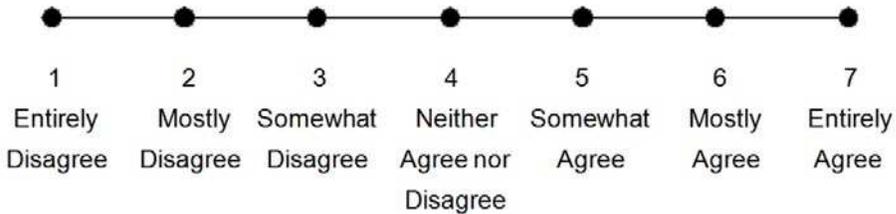
3. Nick is responsible for what is happening to him.



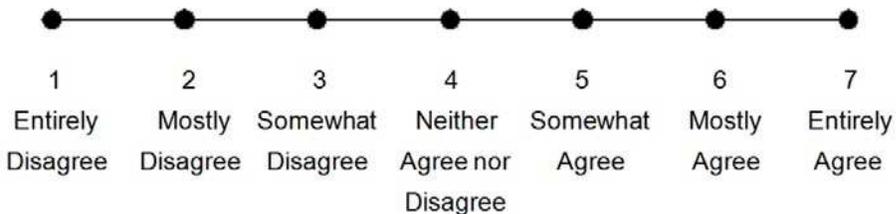
4. Jim is responsible for what is happening.



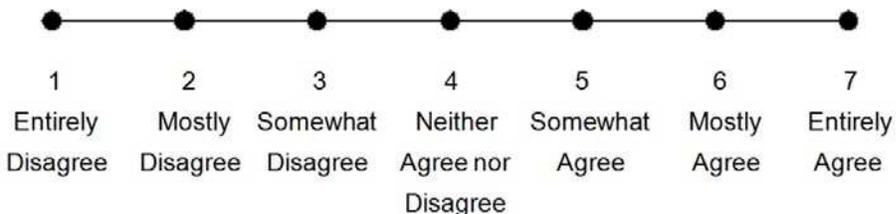
5. Jim's behavior towards Nick is unacceptable.



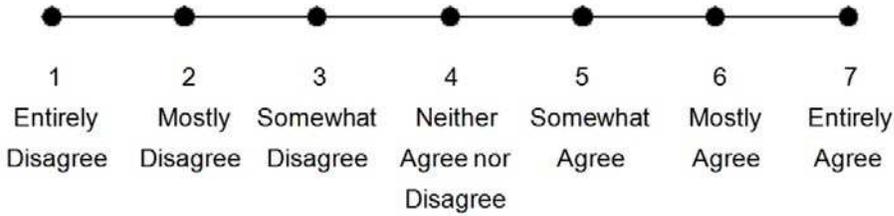
6. Nick's behavior towards Jim is unacceptable.



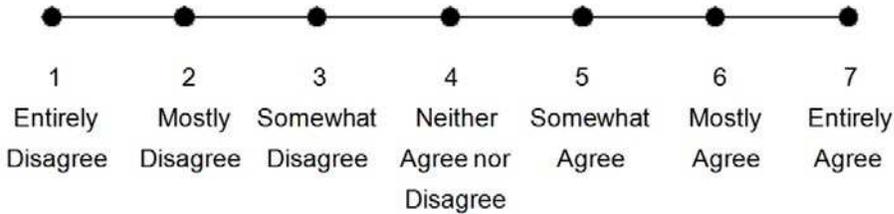
7. I feel bad for Nick.



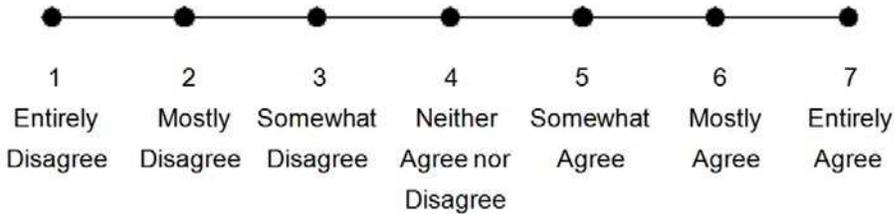
8. I feel bad for Jim.



9. I feel angry at Nick.



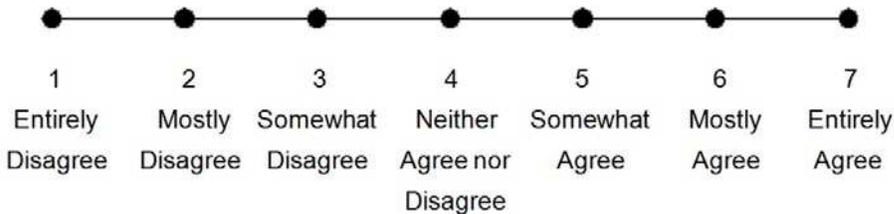
10. I feel angry at Jim.



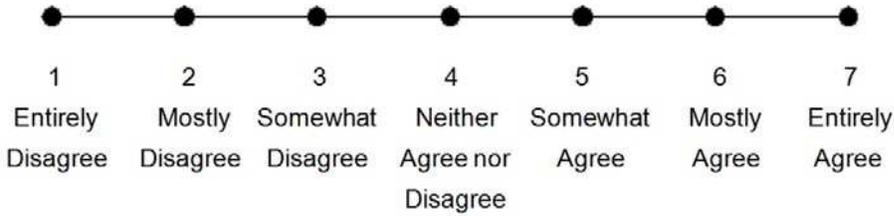
**[Scenario 7] (Ambiguous - Verbal)**

Mike lives a few doors down from you. One day, you see Mike approaching the dorm. Another neighbor from your floor named Aiden is just leaving the dorm and sees Mike. Aiden waves at Mike, but Mike does not respond. As the two pass each other, Aiden shouts at Mike, saying “Are you too much of a big shot to acknowledge me? With a face like that, you should consider yourself lucky that I even talk to you.” Mike ignores this comment, but as the year goes by, Aiden won’t let it go. He continues to let Mike know what he thinks of his personality and looks when the two encounter each other.

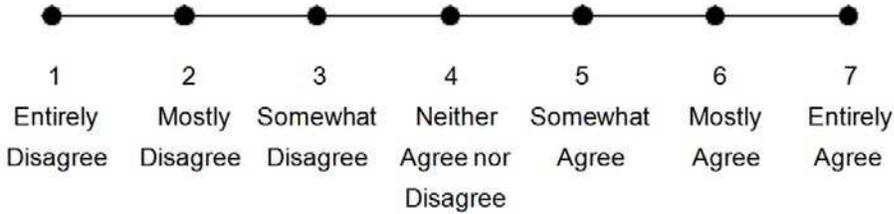
1. Mike has instigated this situation.



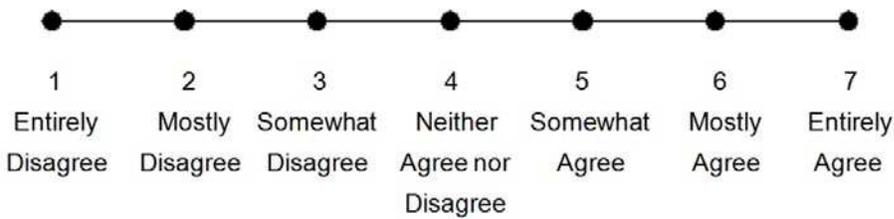
2. Aiden has instigated this situation.



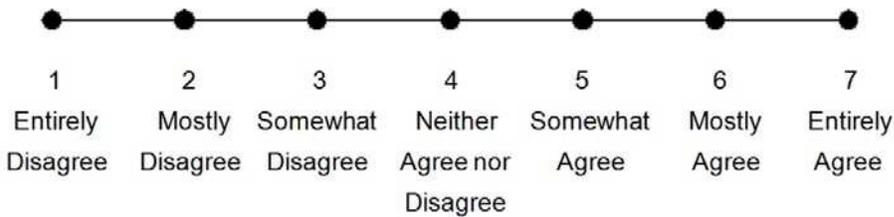
3. Mike is responsible for what is happening to him.



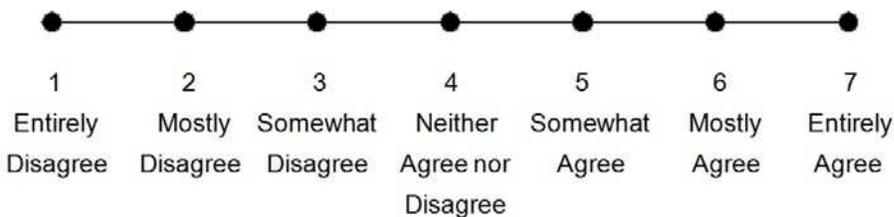
4. Aiden is responsible for what is happening.



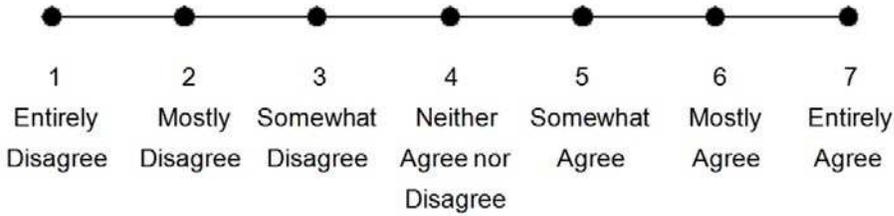
5. Mike's behavior towards Aiden is unacceptable.



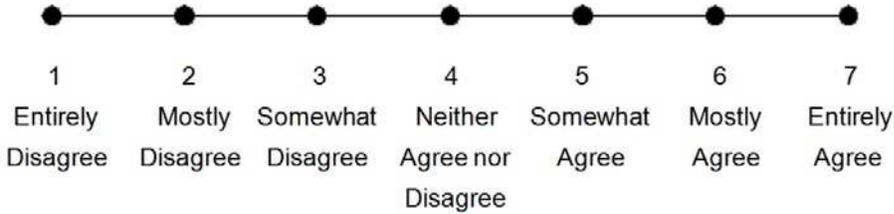
6. Aiden's behavior towards Mike is unacceptable.



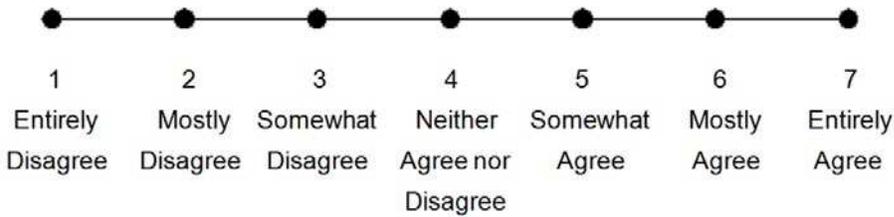
7. I feel bad for Mike.



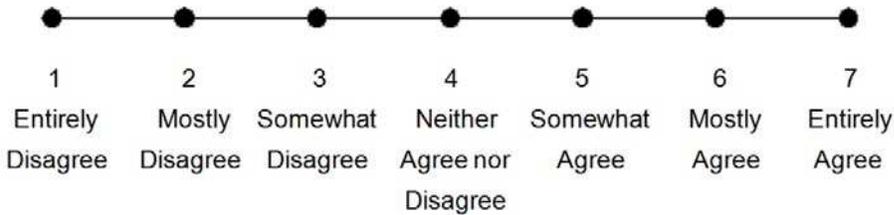
8. I feel bad for Aiden.



9. I feel angry at Mike.



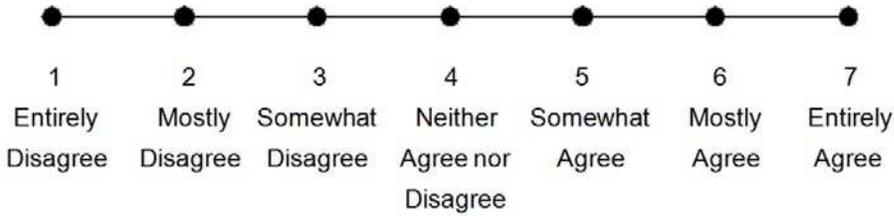
10. I feel angry at Aiden.



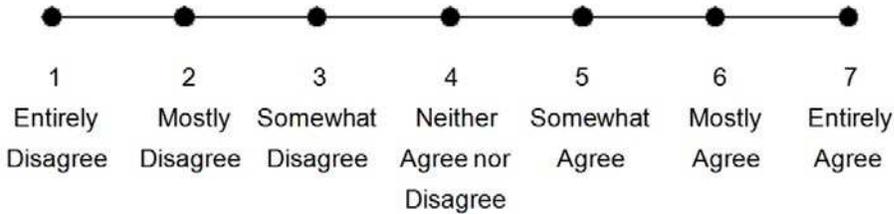
**[Scenario 8] (Unambiguous - Physical)**

Justin is a student in your history class. He sits by himself, and spends most of his time doodling in his notebook. One day, a classmate named Sam notices one of Justin’s drawings: a beautiful woman. He laughs out loud and grabs Justin’s notebook. When Justin pleads for him to give his notebook back, Sam shoves him to the ground. Sam’s behavior towards Justin doesn’t stop there. He puts Justin in a headlock every day before class.

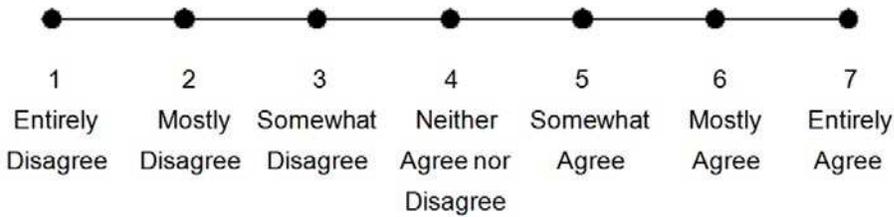
1. Justin has instigated this situation.



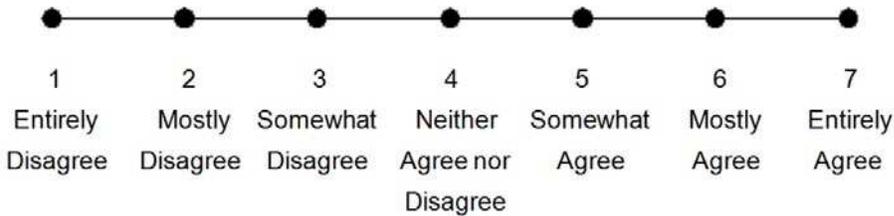
2. Sam has instigated this situation.



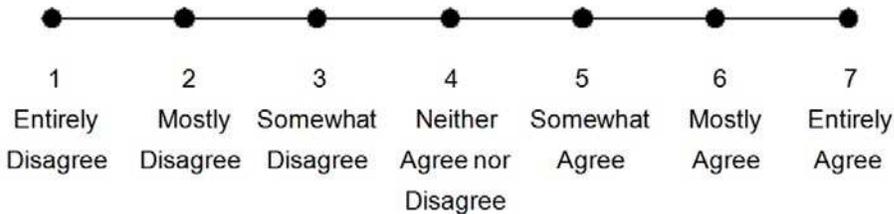
3. Justin is responsible for what is happening to him.



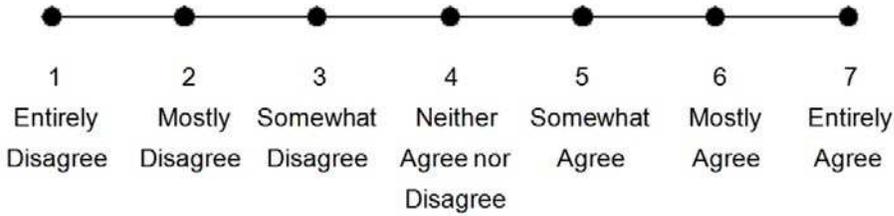
4. Sam is responsible for what is happening.



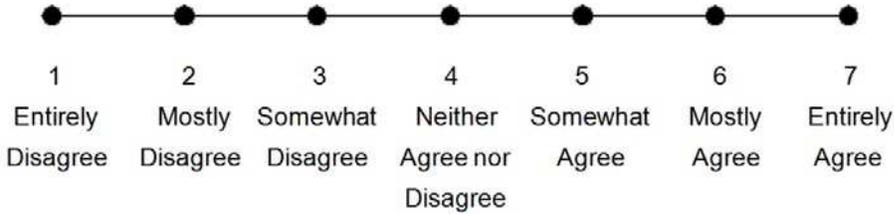
5. Justin's behavior towards Sam is unacceptable.



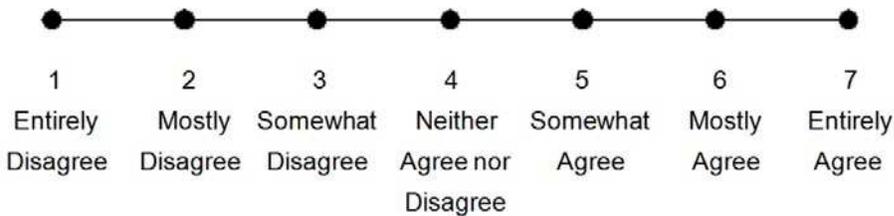
6. Sam's behavior towards Justin is unacceptable.



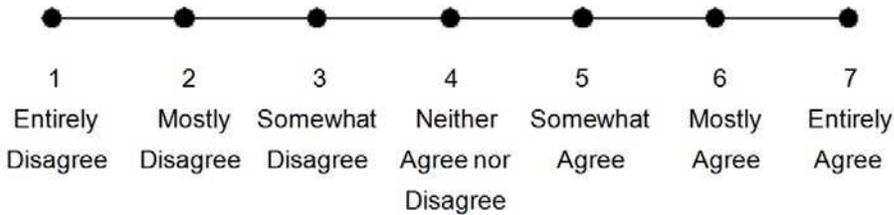
7. I feel bad for Justin.



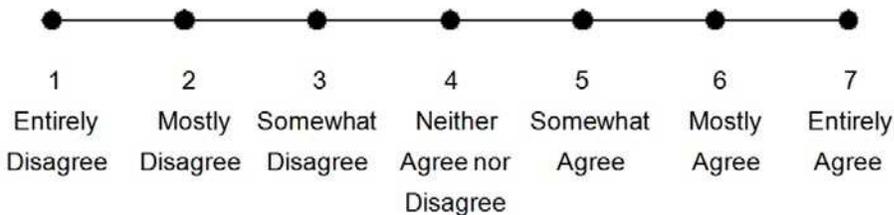
8. I feel bad for Sam.



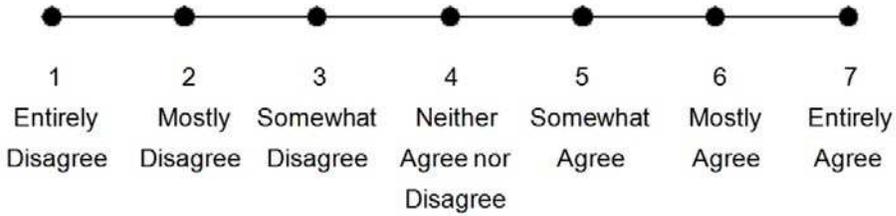
9. I feel angry at Justin.



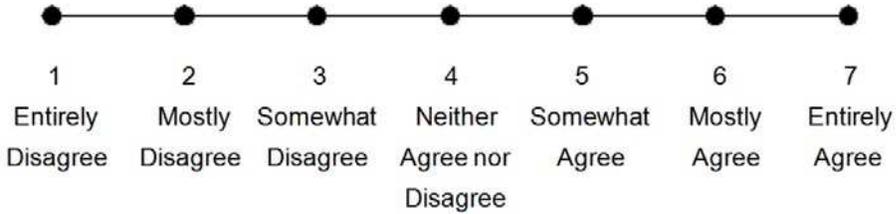
10. I feel angry at Sam.



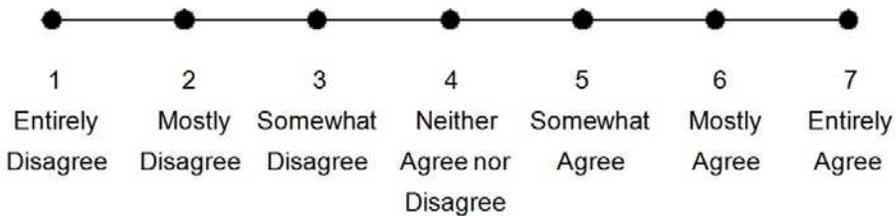
1. Scenario 1 is an example of bullying.



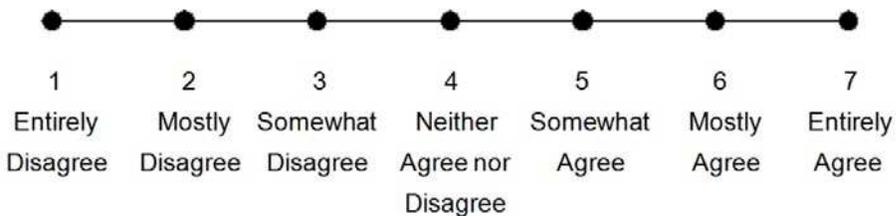
2. Scenario 2 is an example of bullying.



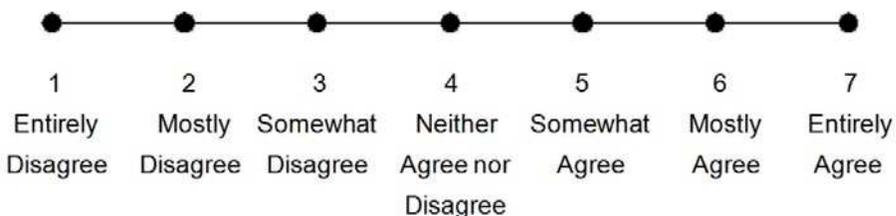
3. Scenario 3 is an example of bullying.



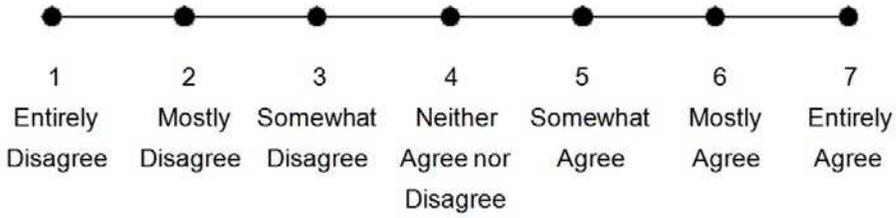
4. Scenario 4 is an example of bullying.



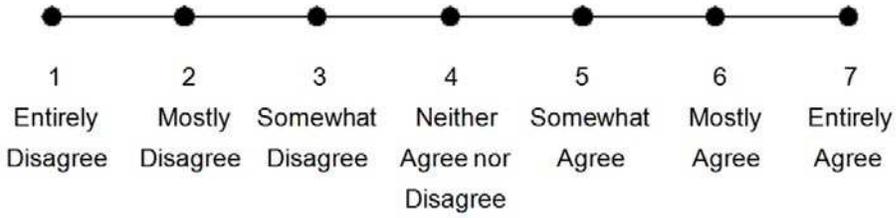
5. Scenario 5 is an example of bullying.



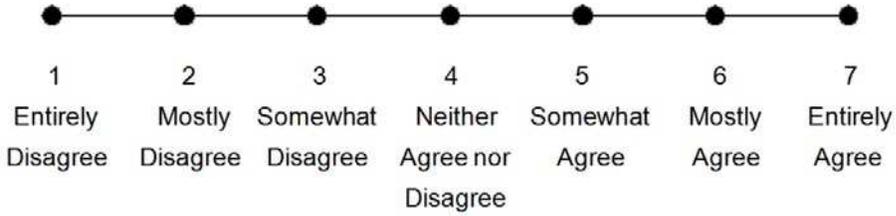
6. Scenario 6 is an example of bullying.



7. Scenario 7 is an example of bullying.



8. Scenario 8 is an example of bullying.



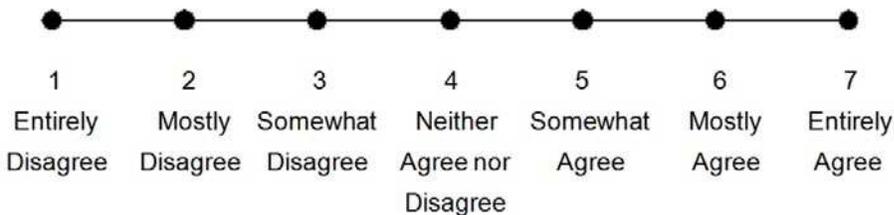
## APPENDIX B

**Instructions:** Please read the vignettes below. Then rate the following statements for the degree to which you agree or disagree with them.

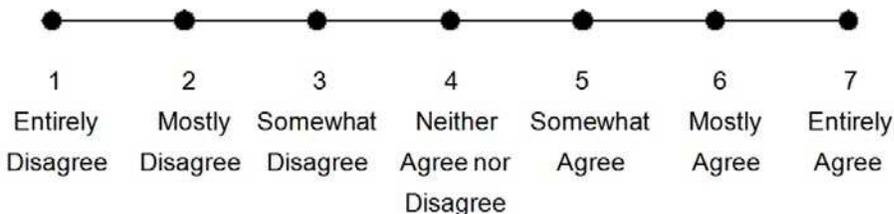
### [Scenario 1a] *No Mention of Bullying*

Billy hated going to gym class, and was especially unhappy when the gym teacher decided the students should play dodge ball for a few weeks. During the first game, Pete, a player on the other team, hit Billy squarely on the side of the head with the ball. Billy saw stars. The next time the class met, right after the game began, Pete again managed to hit Billy in the head with a powerful throw. Billy asked Pete if he had done so on purpose, but Pete just looked annoyed and said “Look, this is how the game is played.” On the third day of dodgeball, Pete again nailed Billy in the head 30 seconds into the game.

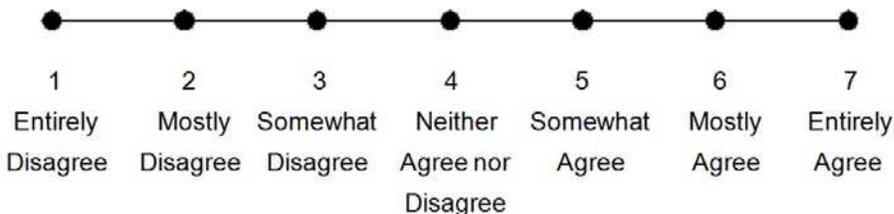
1. Billy has instigated this situation.



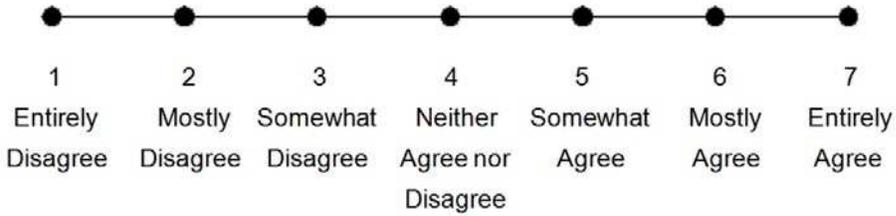
2. Pete has instigated this situation.



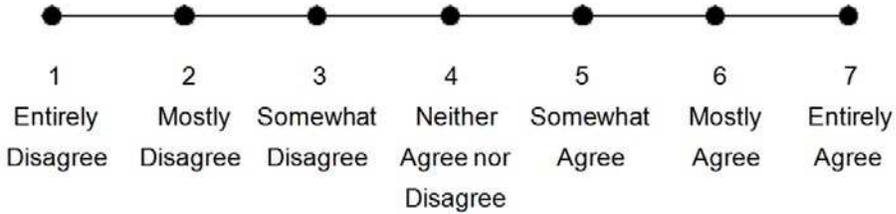
3. Billy is responsible for what is happening to him.



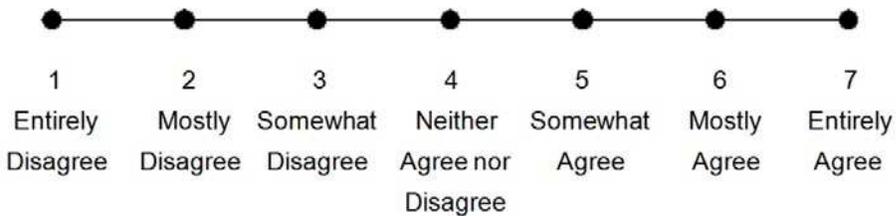
4. Pete is responsible for what is happening.



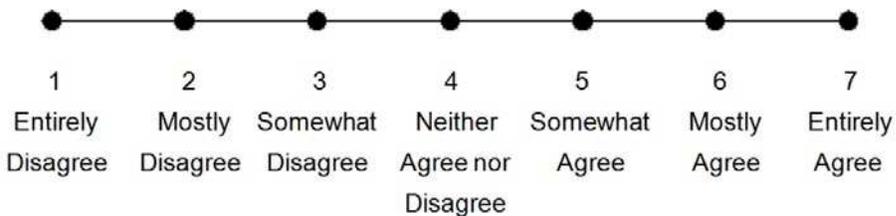
5. Billy's behavior towards Pete is unacceptable.



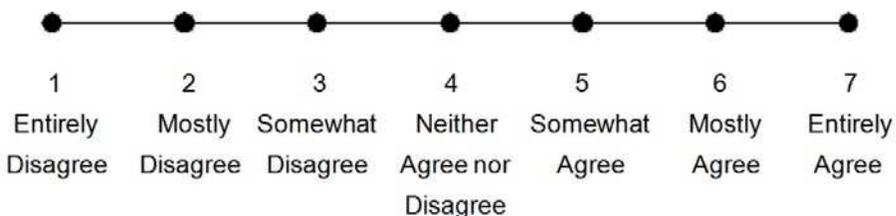
6. Pete's behavior towards Billy is unacceptable.



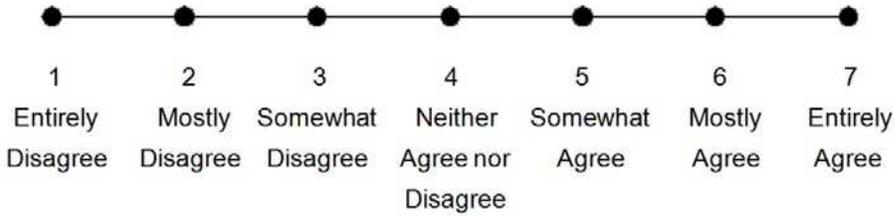
7. I feel bad for Billy.



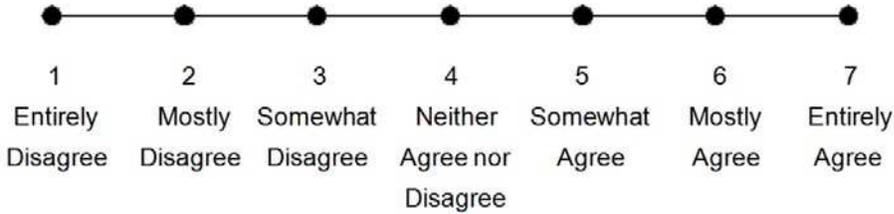
8. I feel bad for Pete.



9. I feel angry at Billy.



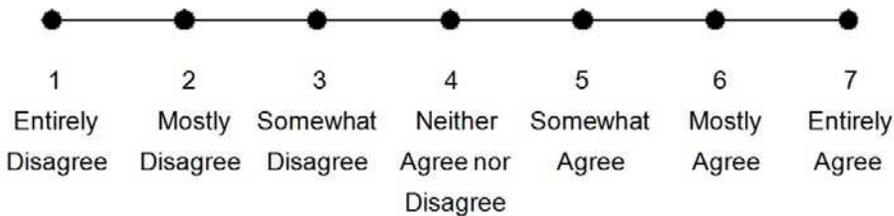
10. I feel angry at Pete.



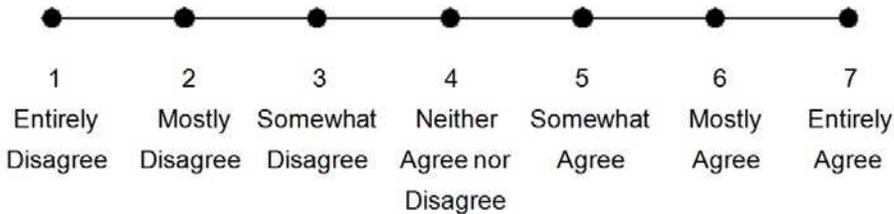
**[Scenario 2a] No Mention of Bullying**

Nick is a student in your psychology class. He silently sits alone in the back corner throughout the entire course. Even during group activities, Nick sticks to himself. A classmate named Jim approaches Nick and asks if he'd like to join his group. Nick simply replies, "No". Jim then asks Nick if that was first word he managed to utter in his life. Nick looks up, startled; he has no idea how to respond. Jim now makes fun of Nick every day before class starts.

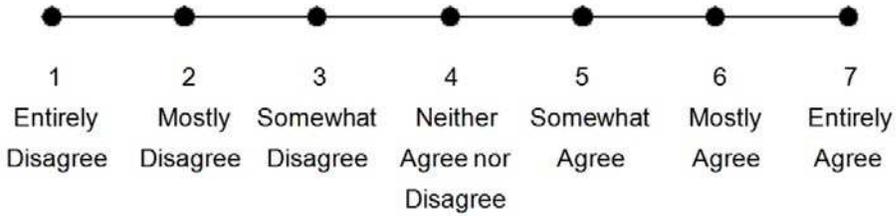
1. Nick has instigated this situation.



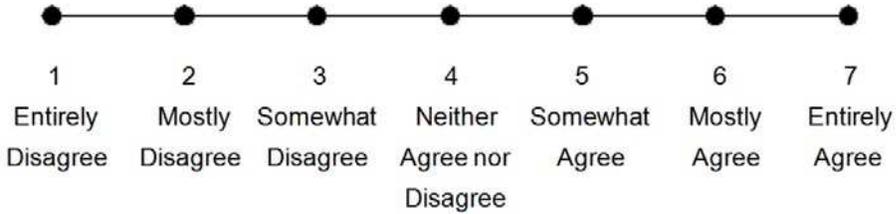
2. Jim has instigated this situation.



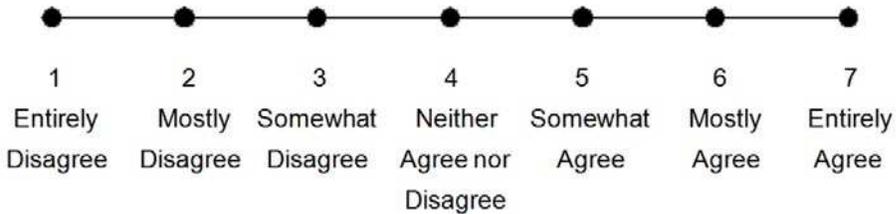
3. Nick is responsible for what is happening to him.



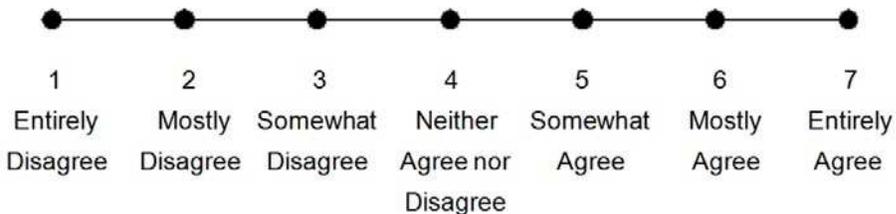
4. Jim is responsible for what is happening.



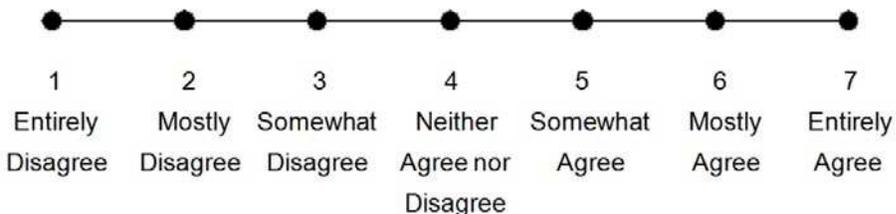
5. Jim's behavior towards Nick is unacceptable.



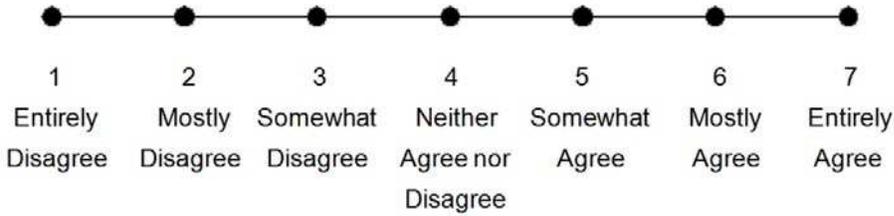
6. Nick's behavior towards Jim is unacceptable.



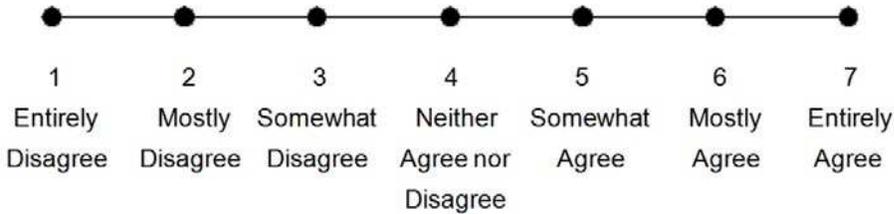
7. I feel bad for Nick.



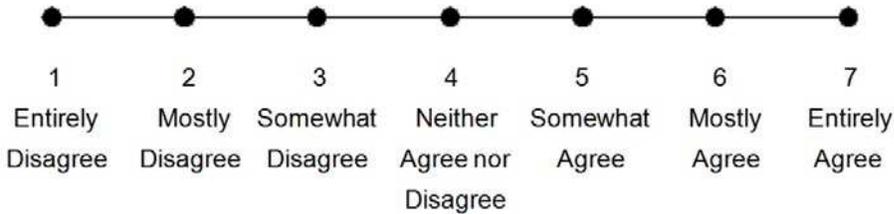
8. I feel bad for Jim.



9. I feel angry at Nick.



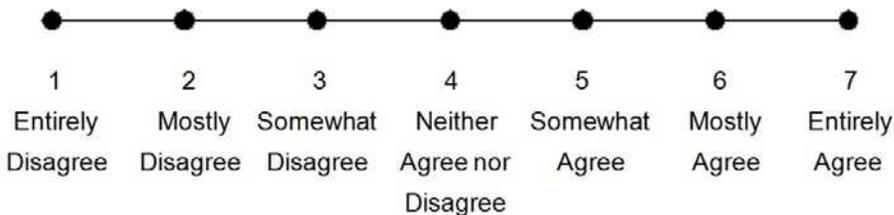
10. I feel angry at Jim.



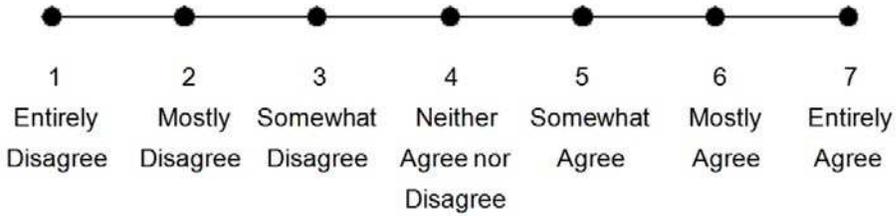
**[Scenario 3a] No Mention of Bullying**

Mike lives a few doors down from you. One day, you see Mike approaching the dorm. Another neighbor from your floor named Aiden is just leaving the dorm and sees Mike. Aiden waves at Mike, but Mike does not respond. As the two pass each other, Aiden shouts at Mike, saying “Are you too much of a big shot to acknowledge me? With a face like that, you should consider yourself lucky that I even talk to you.” Mike ignores this comment, but as the year goes by, Aiden won’t let it go. He continues to let Mike know what he thinks of his personality and looks when the two encounter each other.

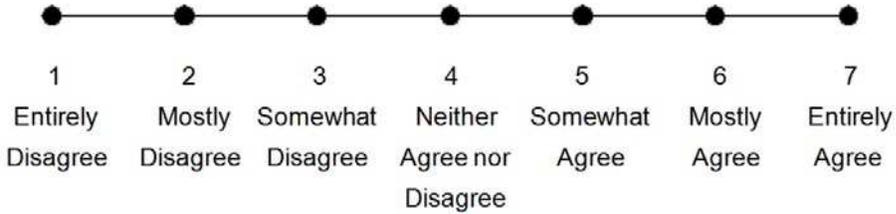
1. Mike has instigated this situation.



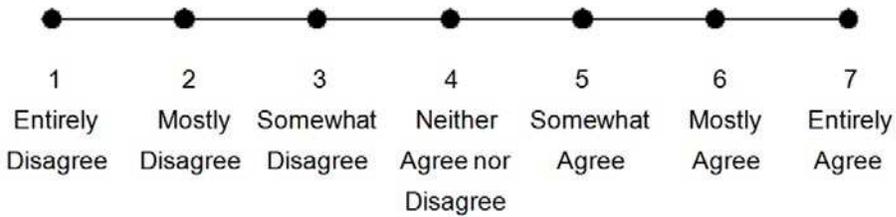
2. Aiden has instigated this situation.



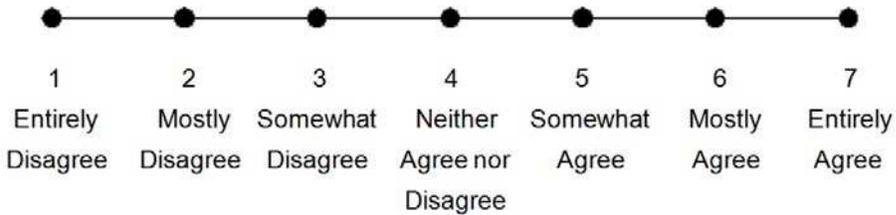
3. Mike is responsible for what is happening to him.



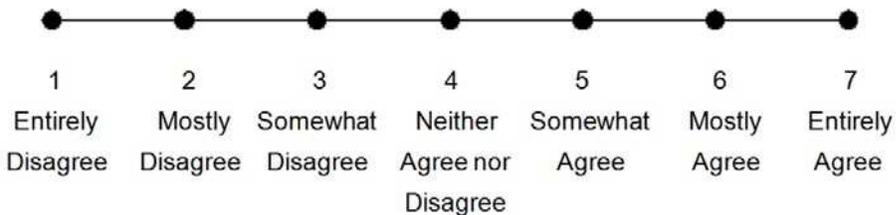
4. Aiden is responsible for what is happening.



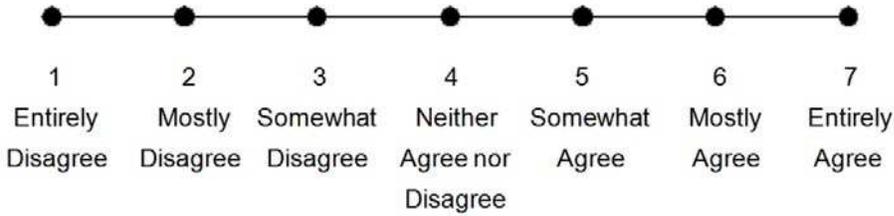
5. Mike's behavior towards Aiden is unacceptable.



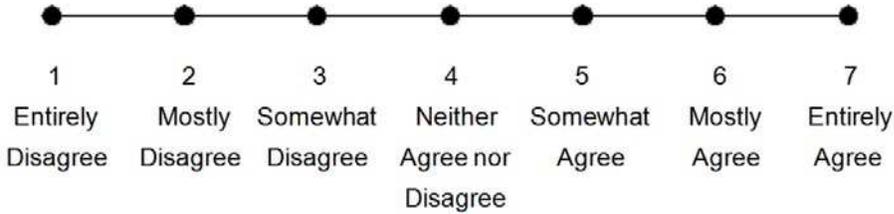
6. Aiden's behavior towards Mike is unacceptable.



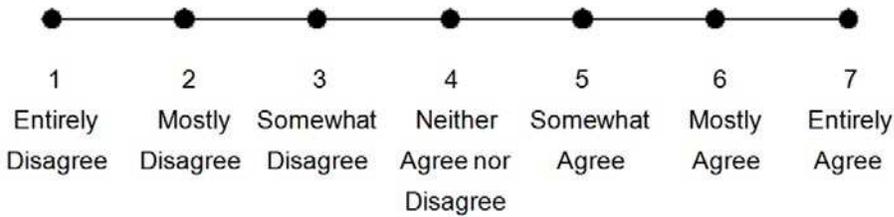
7. I feel bad for Mike.



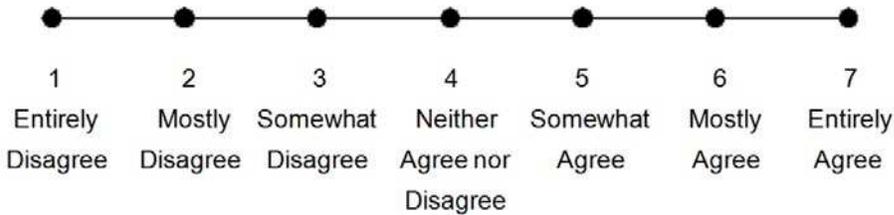
8. I feel bad for Aiden.



9. I feel angry at Mike.



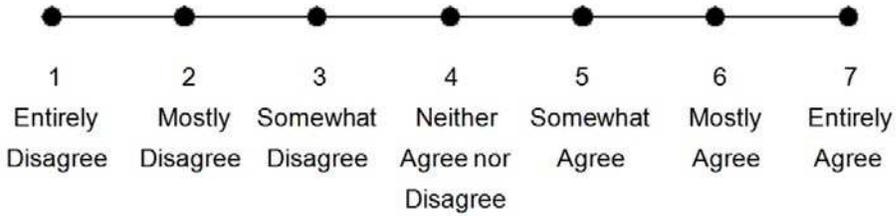
10. I feel angry at Aiden.



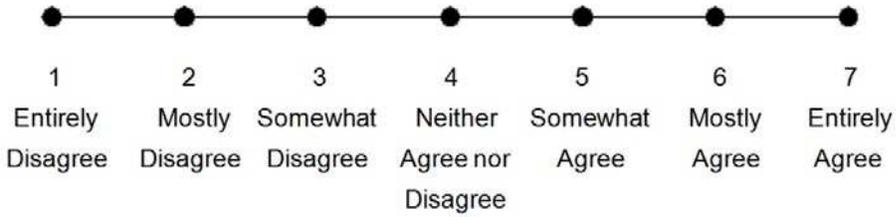
**[Scenario 4a] *No Mention of Bullying***

Justin is a student in your history class. He sits by himself, and spends most of his time doodling in his notebook. One day, a classmate named Sam notices one of Justin’s drawings: a beautiful woman. He laughs out loud and grabs Justin’s notebook. When Justin pleads for him to give his notebook back, Sam shoves him to the ground. Sam’s behavior towards Justin doesn’t stop there. He puts Justin in a headlock every day before class.

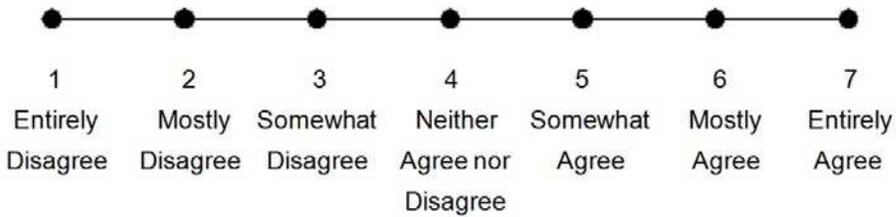
1. Justin has instigated this situation.



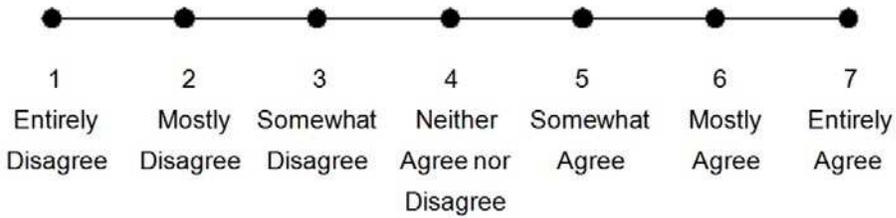
2. Sam has instigated this situation.



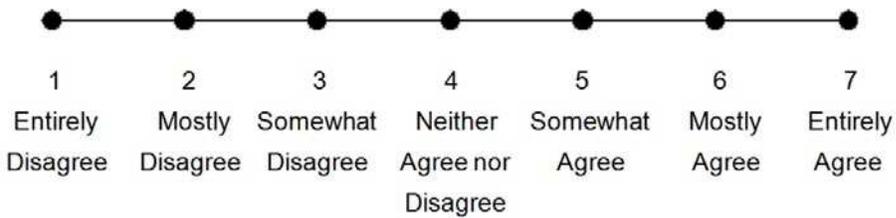
3. Justin is responsible for what is happening to him.



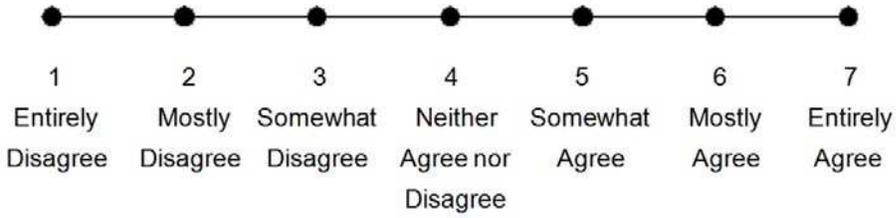
4. Sam is responsible for what is happening.



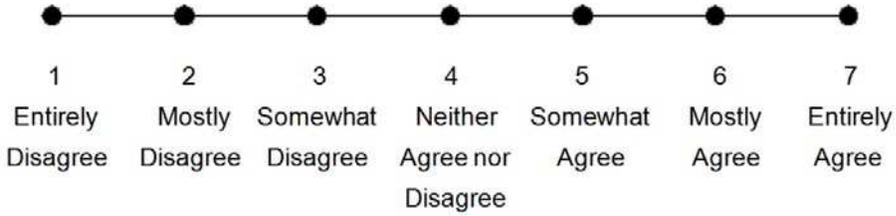
5. Justin's behavior towards Sam is unacceptable.



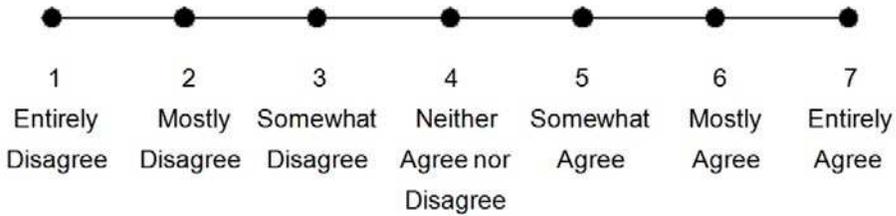
6. Sam's behavior towards Justin is unacceptable.



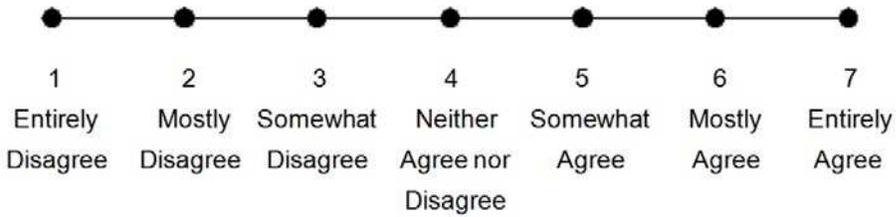
7. I feel bad for Justin.



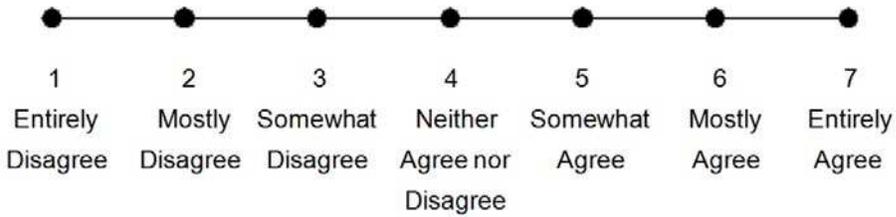
8. I feel bad for Sam.



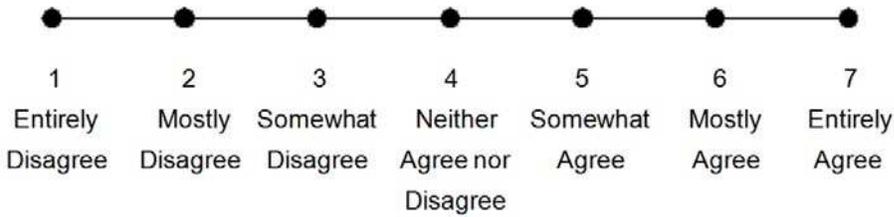
9. I feel angry at Justin.



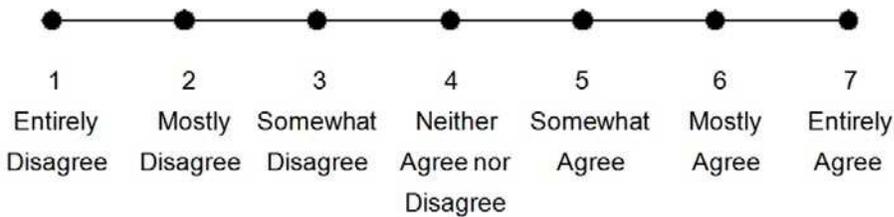
10. I feel angry at Sam.



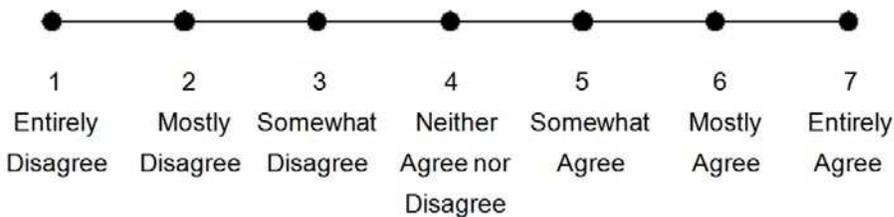
1. Scenario 1 is an example of bullying.



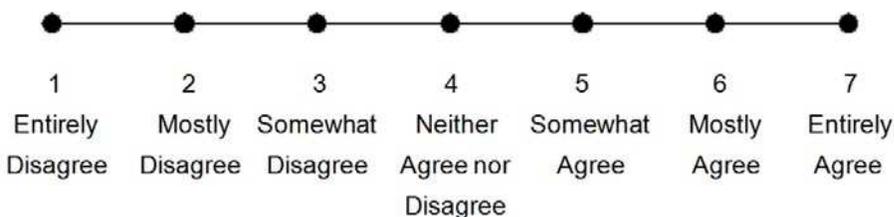
2. Scenario 2 is an example of bullying.



3. Scenario 3 is an example of bullying.



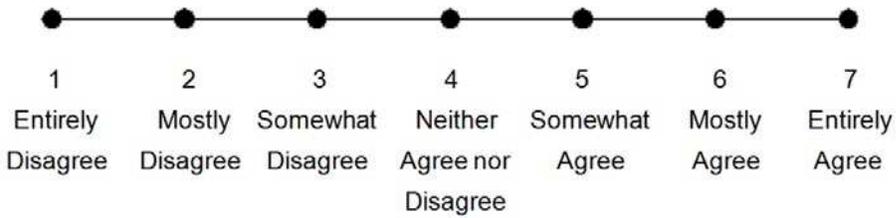
4. Scenario 4 is an example of bullying.



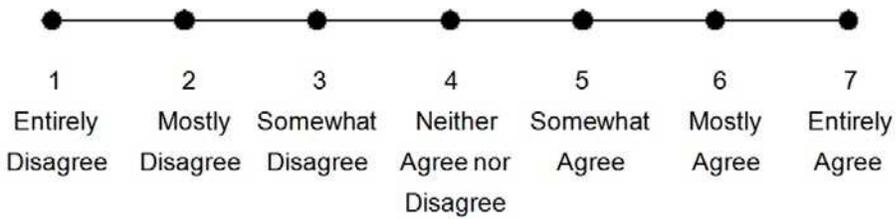
**[Scenario 1b] *Mention of Bullying***

Billy hated going to gym class, and was especially unhappy when the gym teacher decided the students should play dodge ball for a few weeks. During the first game, Pete, a player on the other team, hit Billy squarely on the side of the head with the ball. Billy saw stars. The next time the class met, right after the game began, Pete again managed to hit Billy in the head with a powerful throw. Billy asked Pete if he had done so on purpose to bully him, but Pete just looked annoyed and said “Look, this is how the game is played.” On the third day of dodgeball, Pete continued to bully Billy, nailing him in the head 30 seconds into the game.

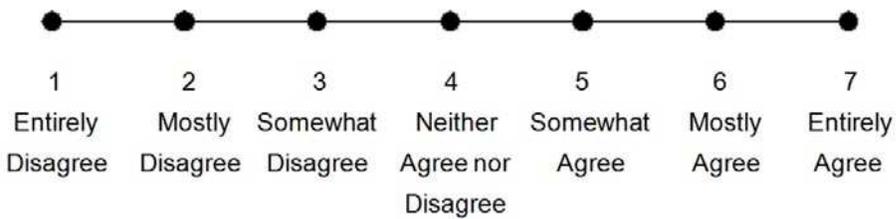
1. Billy has instigated this situation.



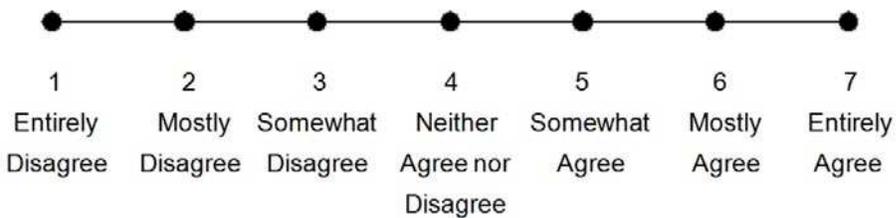
2. Pete has instigated this situation.



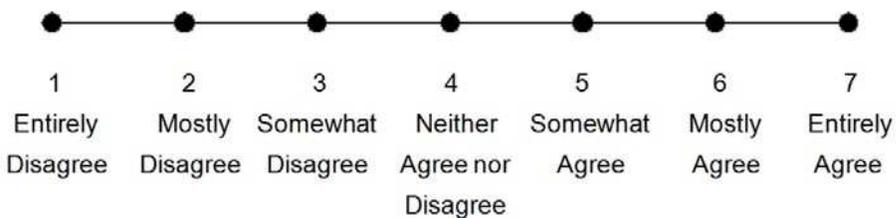
3. Billy is responsible for what is happening to him.



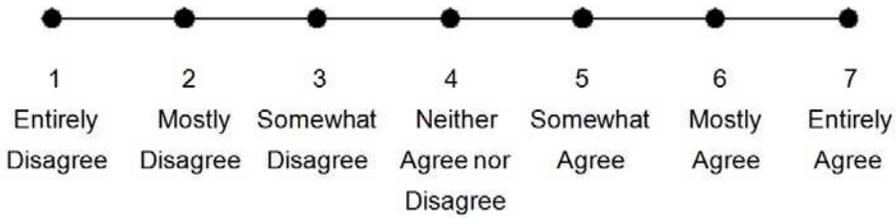
4. Pete is responsible for what is happening.



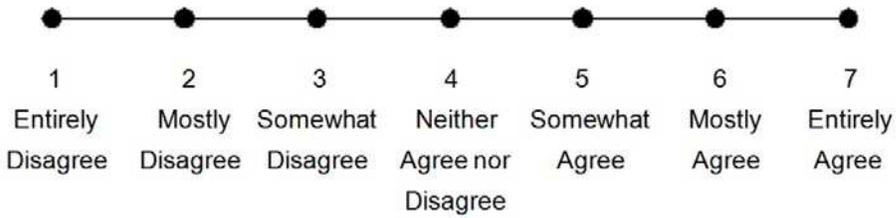
5. Billy's behavior towards Pete is unacceptable.



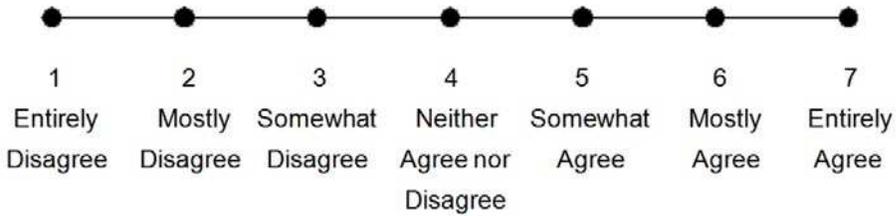
6. Pete's behavior towards Billy is unacceptable.



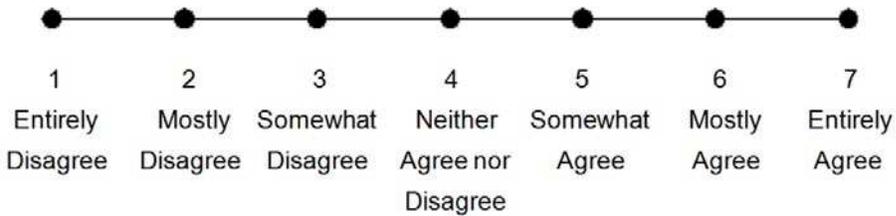
7. I feel bad for Billy.



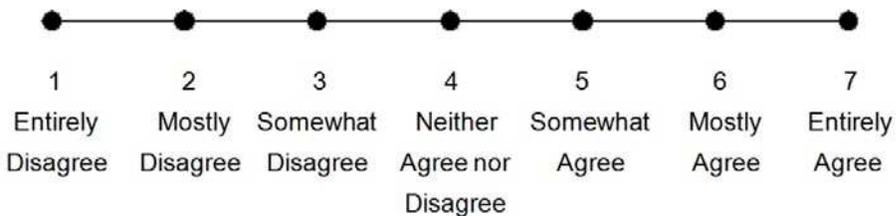
8. I feel bad for Pete.



9. I feel angry at Billy.



10. I feel angry at Pete.

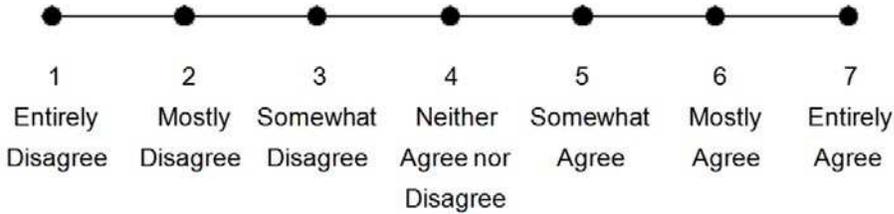


**[Scenario 2b] *Mention of Bullying***

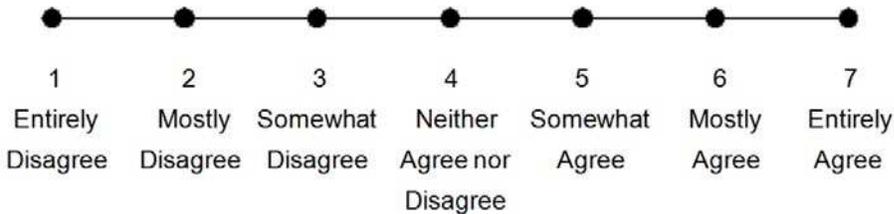
Nick is a student in your psychology class. He silently sits alone in the back corner throughout

the entire course. Even during group activities, Nick just sits and doodles in his notebook. A classmate named Jim approaches Nick and asks if he'd like to join his group. Nick simply replies, "No". Jim then asks Nick if that was first word he managed to utter in his life. Nick looks up, startled; he has no idea how to respond Jim's bullying. Jim continues to bully Nick every day before class.

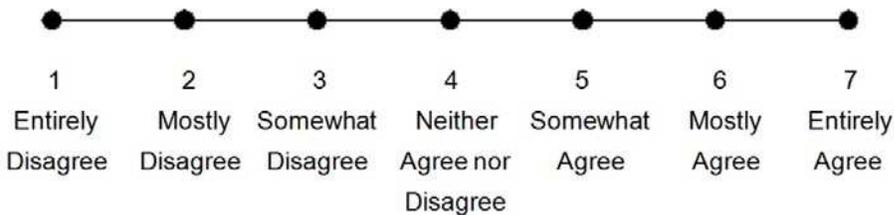
1. Nick has instigated this situation.



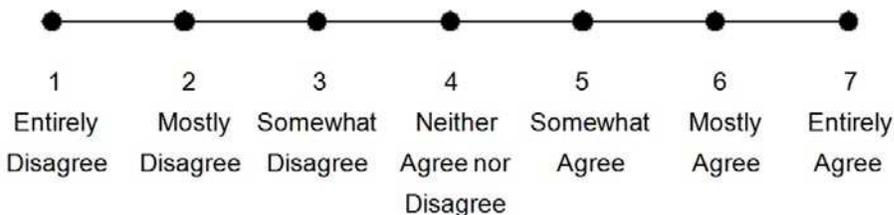
2. Jim has instigated this situation.



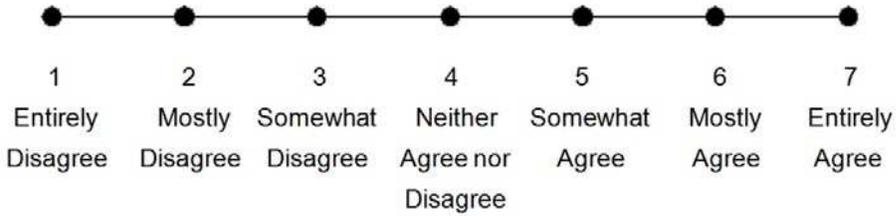
3. Nick is responsible for what is happening to him.



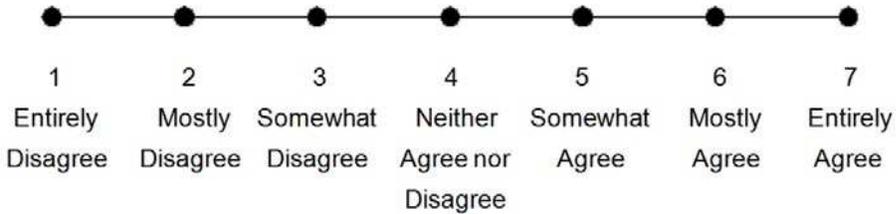
4. Jim is responsible for what is happening.



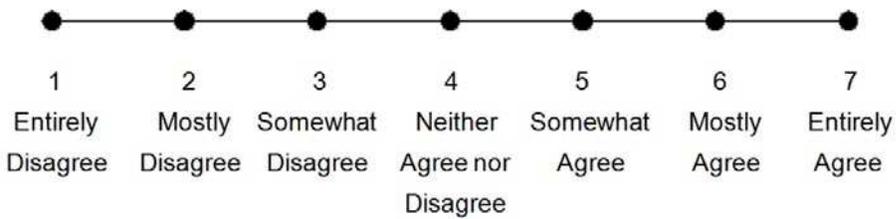
5. Jim's behavior towards Nick is unacceptable.



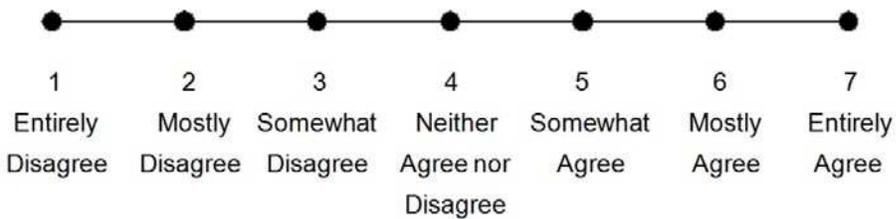
6. Nick's behavior towards Jim is unacceptable.



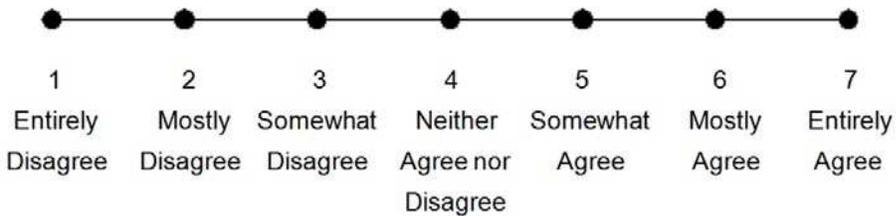
7. I feel bad for Nick.



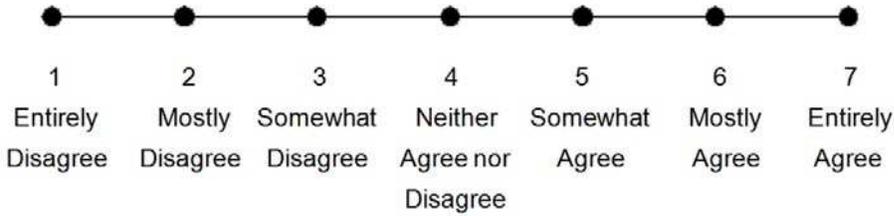
8. I feel bad for Jim.



9. I feel angry at Nick.



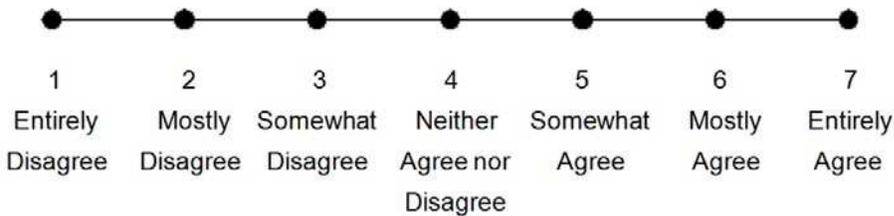
10. I feel angry at Jim.



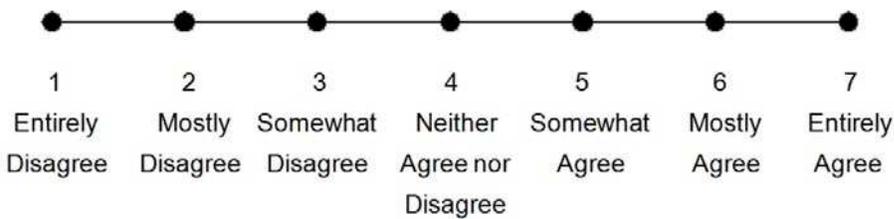
**[Scenario 3b] *Mention of Bullying***

Mike lives a few doors down from you. One day, you see Mike approaching the dorm. Another neighbor from your floor named Aiden is just leaving the dorm and sees Mike. Aiden waves at Mike who glances at Aiden, rolls his eyes, and keeps walking. As the two pass each other, Aiden shouts at Mike, saying “Are you too much of a big shot to acknowledge me? With a face like that, you should consider yourself lucky that I even talk to you.” Mike ignores the bullying, but as the year goes by, Aiden won't let it go. He continues to bully Mike, letting him know what he thinks of his personality and looks when the two encounter each other.

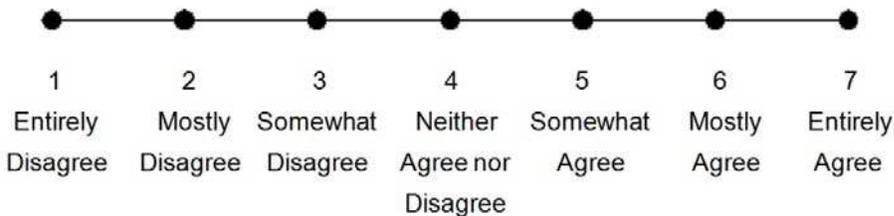
1. Mike has instigated this situation.



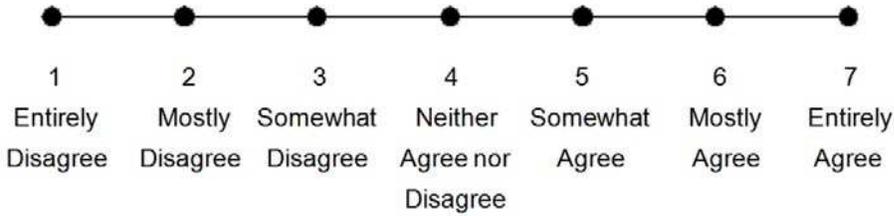
2. Aiden has instigated this situation.



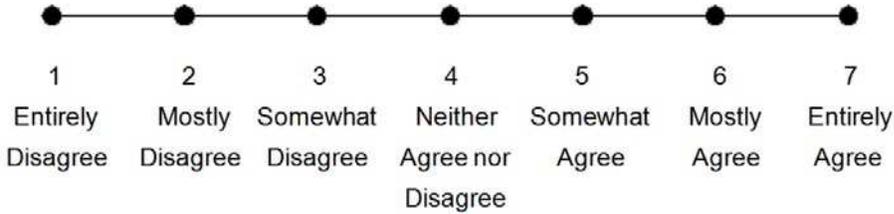
3. Mike is responsible for what is happening to him.



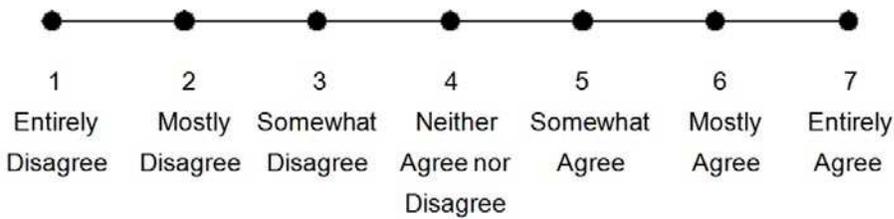
4. Aiden is responsible for what is happening.



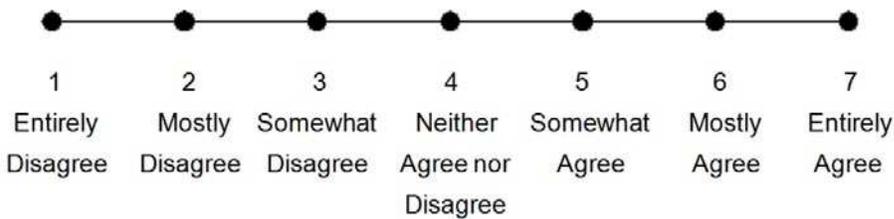
5. Aiden's behavior towards Mike is unacceptable.



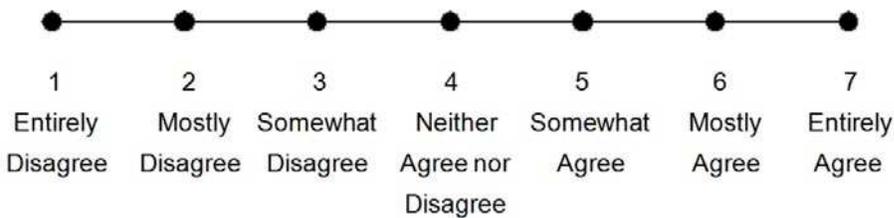
6. Mike's behavior towards Aiden is unacceptable.



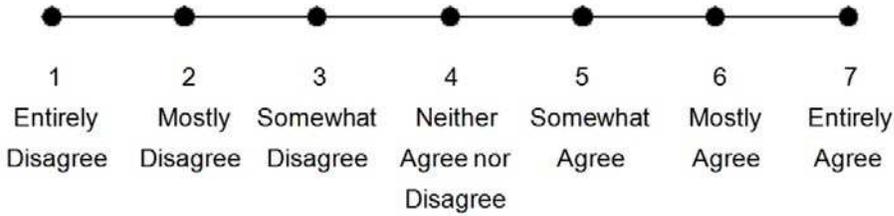
7. I feel bad for Mike.



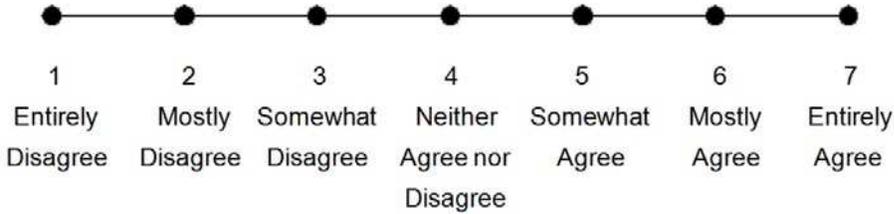
8. I feel bad for Aiden.



9. I feel angry at Mike.



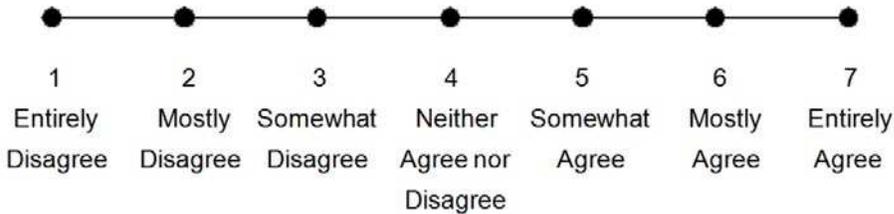
10. I feel angry at Aiden.



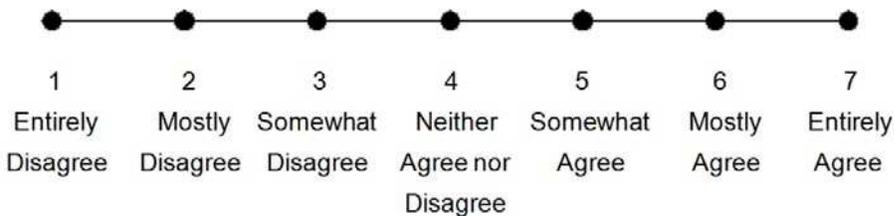
**[Scenario 4b] *Mention of Bullying***

Justin is a student in your history class. He sits by himself, and spends most of his time doodling in his notebook. One day, a classmate named Sam notices one of Justin’s drawings: a beautiful woman. He laughs out loud and grabs Justin’s notebook. When Justin pleads for him to give his notebook back, Sam shoves him to the ground. Sam’s bullying of Justin doesn’t stop there. He bullies Justin every day before class.

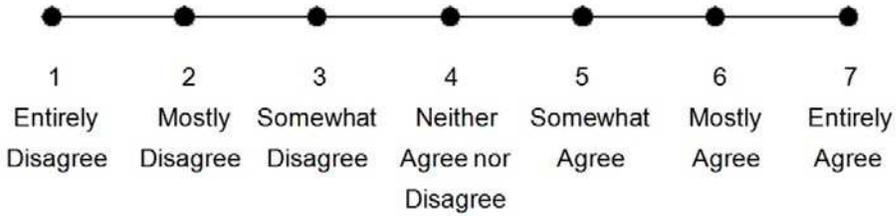
1. Justin has instigated this situation.



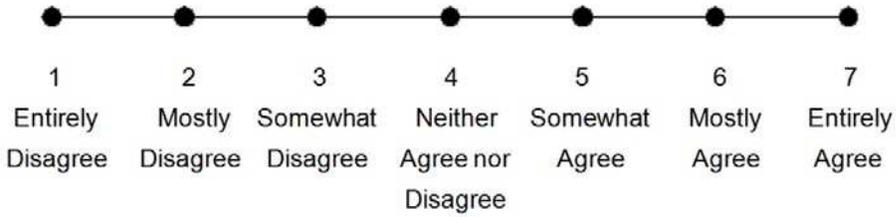
2. Sam has instigated this situation.



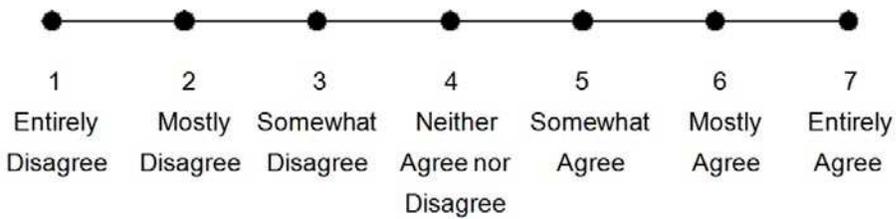
3. Justin is responsible for what is happening to him.



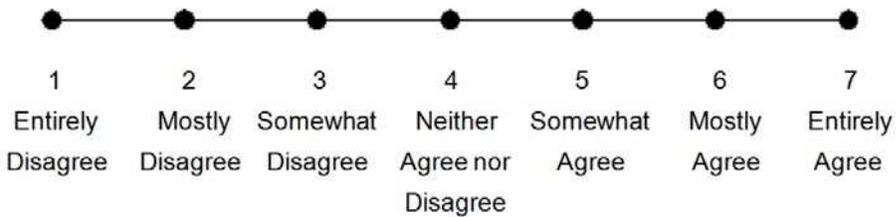
4. Sam is responsible for what is happening.



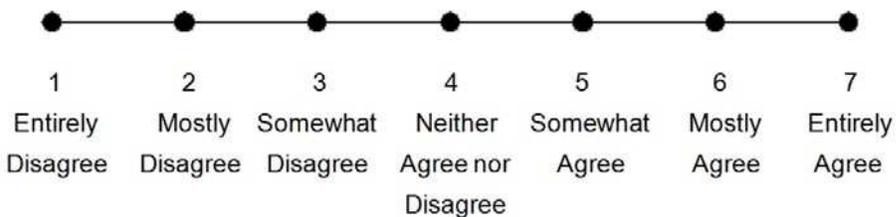
5. Justin's behavior towards Sam is unacceptable.



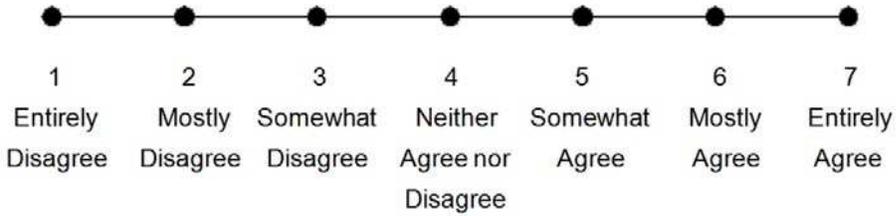
6. Sam's behavior towards Justin is unacceptable.



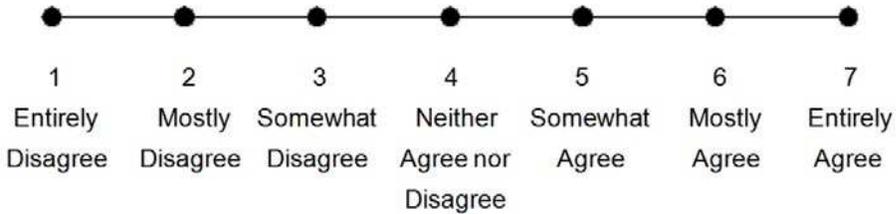
7. I feel bad for Justin.



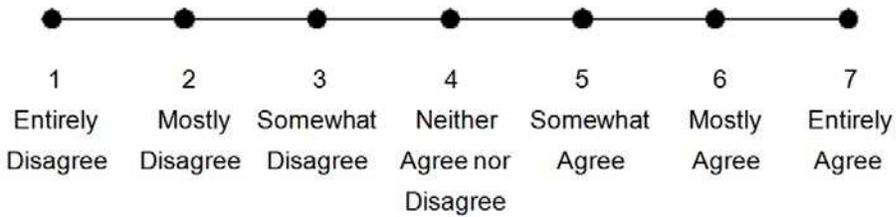
8. I feel bad for Sam.



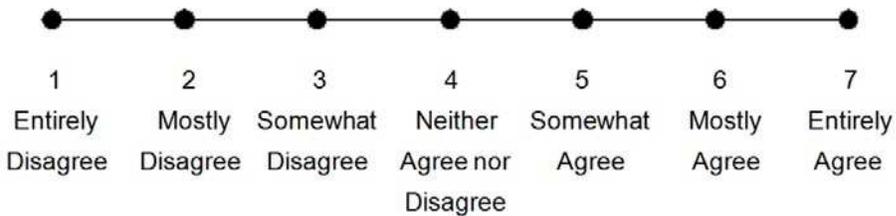
9. I feel angry at Justin.



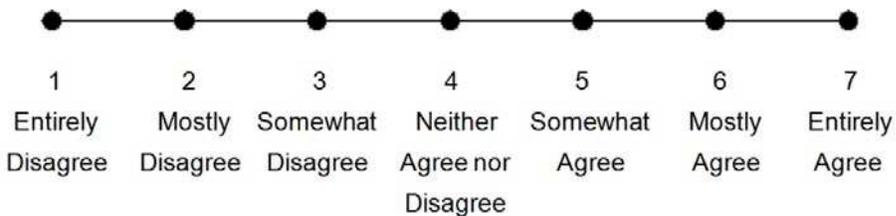
10. I feel angry at Sam.



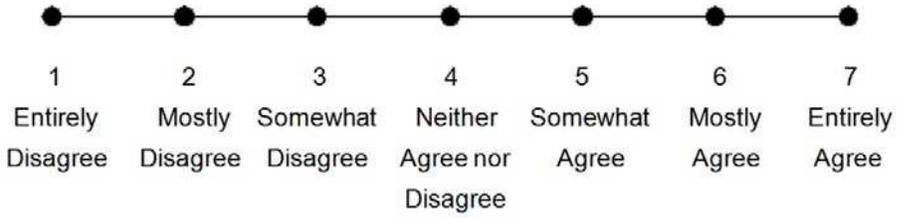
1. Scenario 1 is an example of bullying.



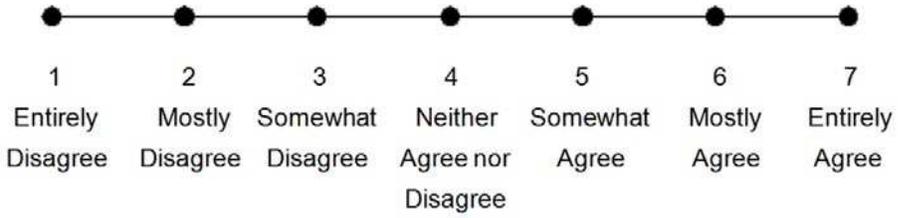
2. Scenario 2 is an example of bullying.



3. Scenario 3 is an example of bullying.



4. Scenario 4 is an example of bullying.



## APPENDIX C

### GLOBAL BELIEF IN A JUST WORLD

Below you will find various statements. Most likely, you will strongly agree with some statements, and strongly disagree with others. Sometimes you may feel more neutral. Read each statement carefully and decide to what extent you personally agree or disagree with it. Circle the number which corresponds to this judgment. Make sure you respond to every statement.

	<b>strongly disagree</b>	<b>disagree</b>	<b>slightly disagree</b>	<b>slightly agree</b>	<b>agree</b>	<b>strongly agree</b>
1. I feel that people get what they are entitled to in life.	1	2	3	4	5	6
2. I feel that people's efforts are noticed and rewarded.	1	2	3	4	5	6
3. I feel that people are treated fairly in life.	1	2	3	4	5	6
4. I feel that people earn the rewards and punishments they get.	1	2	3	4	5	6
5. I feel that people get what they deserve.	1	2	3	4	5	6
6. I feel that people are treated with the respect that they deserve.	1	2	3	4	5	6
7. I feel that the world treats people fairly.	1	2	3	4	5	6

**APPENDIX D**

**PERSONAL BELIEF IN A JUST WORLD**

Below you will find various statements. Most likely, you will strongly agree with some statements, and strongly disagree with others. Sometimes you may feel more neutral. Read each statement carefully and decide to what extent you personally agree or disagree with it. Circle the number which corresponds to this judgment. Make sure you respond to every statement.

	strongly disagree	disagree	slightly disagree	slightly agree	agree	strongly agree
1. I feel that I get what I am entitled to in life.	1	2	3	4	5	6
2. I feel that my efforts are noticed and rewarded.	1	2	3	4	5	6
3. I feel that I am treated fairly in life.	1	2	3	4	5	6
4. I feel that I earn the rewards and punishments I get	1	2	3	4	5	6
5. I feel that I get what I deserve.	1	2	3	4	5	6
6. I feel that I am treated with the respect that I deserve	1	2	3	4	5	6
7. I feel that the world treats me fairly.	1	2	3	4	5	6

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## **Autobiographical Statement**

David Voss

I was born in Park Ridge, Illinois, but I spent most of my time growing up in the metro-Detroit area. I attended Michigan State University where I majored in psychology. While there, I was able to spend my junior and senior years as a research assistant in the labs of Drs. Brent Donnellan and Richard Lucas.

I am currently a graduate student at Syracuse University. During my time at Syracuse I have been both a teaching assistant and a course instructor for Introduction to Psychology, and have helped coordinate a social psychology lab where I conducted research. My current research interests relate to the structure and neurobiological bases of personality, and the psychological foundations of political ideology.