

Facility Dogs in the Courtroom: Comfort Without Prejudice?

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Abstract

Courthouse facility dogs are expertly trained canines that assist individuals with psychological, emotional, or physical difficulties in a myriad of courtroom situations. While these animals are increasingly used to assist young witnesses in court, it is not yet known whether they are prejudicial to defendants or the witnesses they accompany during trial. Across two studies utilizing mock trial paradigms involving child witnesses, we explored the impact of courtroom accommodations (facility dog vs. teddy bear vs. no accommodation) on mock jurors' judgments about the defendant and child witness. In Experiment 1, teddy bears, but not facility dogs, were prejudicial to defendants, while in Experiment 2, neither facility dogs nor teddy bears were prejudicial. Further, mock jurors' perceptions of the child witness were not influenced by courtroom accommodations. Evidence from both studies suggests that, contrary to various legal arguments concerning due process, facility dogs may not influence verdict, verdict confidence, or sentencing.

Keywords

courtroom innovations, jury decision making, legal issues, sex crimes, child witnesses

Testifying in court is a stressful experience for most people, but can be especially difficult for young witnesses or victims of serious offenses like child abuse and sexual misconduct (Goodman et al., 1992). Children are often reluctant and scared to testify in an open courtroom for a variety of reasons, including being hesitant to face the alleged offender, having to generally discuss difficult subject matter, and having to specifically recount their abuse (Sas, 1991). Based on these and other stressors that surround courtroom testimony, it is possible that the information children provide on the witness stand is not as thorough and accurate as it might otherwise be if elicited during an interview in another environment (Saywitz & Nathanson, 1993). Several evidentiary and procedural rulings have been made in recent years in an attempt to combat some of the difficulties children face as testifying witnesses.

Courts in the U.S. exercise the use of *therapeutic jurisprudence*—the law's ability to influence the psychological well-being of those involved in the justice system—implying that the law may

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actually serve as a therapeutic instrument of well-being (Dellinger, 2009). Some argue that the law should be analyzed to determine how law and the practice of law could be utilized or changed to facilitate positive therapeutic effects (Zacharias, 1999). This belief and goal correspond with the implementation of reforms, innovations, and accommodations in the courtroom, especially for young and/or vulnerable witnesses (i.e., those who are young, elderly, or disabled mentally or physically). These reforms and accommodations are thought to ease the harm caused to young and vulnerable witnesses during courtroom participation (Goodman, Quas, Bulkley, & Shapiro, 1999). By reducing the stress experienced in this setting, witnesses' testimony maybe more complete and accurate.

Lengthy legal precedence details permissible methods of accommodating vulnerable witnesses in court. Federal Rule of Evidence 611 allows trial judges ultimate discretion when deciding the procedures for examining witnesses and presenting evidence. This rule aims to make the presentation of evidence and the interrogation of witnesses effective in attaining the truth while protecting witnesses from undue embarrassment and harassment. Other federal laws specifically protect vulnerable witnesses and allow them special accommodations in the courtroom. For example, the Victims of Child Abuse Act (1990) allows for special accommodations for children. According to this Act, depending on the circumstances, children are allowed "comfort toys" or dolls, a support person to accompany them in court, or may testify via closed-circuit television or through hearsay testimony of their forensic interview statements (Dellinger, 2009). In general, comfort items are often permitted when there is a compelling need for the use of such an item. Indeed, 26% of judges and 76% of prosecutors surveyed in one state in the United States indicated that children often testify while accompanied by a toy or a friend (Sigler, Crowley, & Johnson, 1990). Judges frequently support accommodating children to aid in their comfort in the courtroom (Bradley, 2014); however, research indicates the presence of a support person specifically may negatively impact the perceived credibility of child witnesses (McAuliff, Lapin, & Michel, 2015).

The acceptance of comfort items accompanying young witnesses during trial (typically sexual abuse cases) is also well-established in case law. For instance, in *Smith v. State of Wyoming* (2005), the appellate court affirmed the lower court's conviction, rejecting the claim that a teddy bear held by the victim during her trial testimony violated Smith's right to a fair trial. In *State of Idaho v. Cliff* (1989), the defendant claimed that the court's allowance of the 8-year-old victim to carry a doll to the stand violated his right to a fair trial as well as his right to face his accuser in that the doll acted as a "psychological security blanket." The appellate court rejected this claim and upheld the conviction. In addition, in *State of Washington v. Hakimi* (2004), the defendant argued on appeal that the court abused its discretion in allowing two 9-year-old victims to carry dolls to the witness stand; however, the appellate court affirmed the conviction.

A relatively new form of therapeutic jurisprudence as it concerns the accommodation of vulnerable witnesses involves the use of canine companions. Courthouse "facility dogs" are utilized by the courts to assist vulnerable witnesses confronted with psychological, emotional, or physical difficulties during legal proceedings. Facility dogs are expertly trained canines and graduates of accredited programs under the guidance of Assistance Dogs International. They are used to provide companionship and comfort by accompanying vulnerable witnesses, typically children, during forensic interviews and in-court testimony when it is believed that the witness would be too distraught or too emotional to give full or effective testimony (Dellinger, 2009). They have also been used to assist elderly and disabled witnesses, as well as defendants. When utilized in the courtroom, the dogs are typically instructed to lie silently on the floor near to or just within the witness' view and, in some cases, are hidden from jurors' view entirely. According to the Courthouse Dogs Foundation (www.courhousedogs.org), there are currently over 200 facility dogs working in nearly 40 states, as well as in Canada, Chile, and other countries. The use of facility dogs during trial has anecdotally been considered very helpful by witnesses, victims, victim advocates, attorneys, and others (see

Crenshaw, Stella, O'Neill-Stephens, & Walsen, 2016). However, to date, there is a lack of empirical data indicating how the presence of a dog in the courtroom affects the important decisions jurors make.

A body of research exploring the impact of dog companionship in therapeutic settings suggests that dogs generally have a calming effect on children and adults. Nagengast, Baun, Megel, and Leibowitz (1997) found that when a dog accompanied children to a doctor's visit, those children experienced less behavioral distress, fewer physiological signs of distress, lower systolic blood pressure, and lower heart rate than children who were not accompanied by a dog. Other research with children indicates that therapy dogs can increase global functioning and coping with stressful life events (for a review, see O'Haire, Guérin, & Kirkham, 2015) and that children diagnosed with autism spectrum disorder experience gains in calmness, reductions in anxiety and anger, and fewer emotional outbursts after therapy with a dog (Berry, Borgi, Francia, Alleva, & Cirulli, 2013). In adults, therapy dogs can reduce negative symptoms in those with schizophrenia and can reduce anxiety in those with heart failure (for a review, see Kamioka et al., 2014). Service dogs have been shown to increase self-esteem, internal locus of control, and well-being in those with severe ambulatory disabilities (Kamioka et al., 2014). Case studies exploring the impact of therapy dogs on veterans suffering from post-traumatic stress disorder (PTSD) indicate that such dogs reduce nightmares and fear of public spaces (for a review, see O'Haire et al., 2015). The implementation of therapy dogs in various college settings is also on the rise: In one study, undergraduate participants who spent time with a therapy-trained dog before engaging in a stressful task had lower cortisol levels after, and a lower heart rate during, the stressful event than participants in the control condition or those who were accompanied by a friend (Polheber & Matchock, 2014). Other research found subjective, but not physiological, benefits for those experiencing "traumatic" stress events: Adults accompanied by a therapy dog during an analogue traumatic event experienced lower anxiety and reduced negative affect compared to those who were alone or were accompanied by a friendly but unfamiliar person, but no physiological differences were found across conditions (Lass-Hennemann, Peyk, Streb, Holz, & Michael, 2014).

Given the variety of domains and situations in which animals are found to be helpful to humans, it is no surprise that the legal system would take notice. The concept of implementing dogs in the courtroom is intuitively appealing to those who seek justice for alleged abuse victims. Proponents contend that they are very effective in calming witnesses and in providing support during testimony (e.g., Roby, 2015). Indeed, therapy dogs can increase true disclosures in substantiated cases of child sexual abuse. For example, Holton (2015) compared children's disclosures of abuse in cases utilizing therapy dogs versus those where no dog was used and found that disclosures were made in 81.8% of cases where a therapy dog was used compared to 33.7% of cases where a therapy dog was not present. Thus, there is preliminary evidence to suggest that such dogs do in fact help these young and vulnerable witnesses to disclose important information.

However, the implementation of facility dogs is not without challenges. Opponents argue that the presence of a dog accompanying a testifying witness is uniquely prejudicial (e.g., see Bowers, 2013; Grimm, 2013), will unduly influence jurors, and may play to jurors' sympathies, in turn biasing them against the defendant and infringing upon the defendant's right to a fair trial (see Nascondiglio, 2016, for a review). It is argued that, since dogs are often considered so visually appealing, they may cause jurors to view a child witness as more vulnerable or likable. It has been claimed that facility dogs may be prejudicial in that they act as peripheral cues, which emphasize the alleged victimization of the child and, thus, the child's testimony may be more persuasive because it elicits undue sympathy. Opponents argue that facility dogs may signal to the jury that the alleged victim is indeed a victim who is traumatized and in need of comfort, and that the dogs may bolster witness credibility. Further, if the canines respond to witness stress, it is not known to jurors whether the dog is responding to actual stress produced by trauma/victimization or to the stress of testifying alone.

In addition, it is also possible that the presence of an animal is distracting to jurors and/or witnesses. Others argue facility dogs may lead to many appeals, increase the length of voir dire, or that the facility dogs may appear “gimmicky” (Dellinger, 2009).

While opponents of facility dogs assert that they are prejudicial because they may lend undue credibility to vulnerable witnesses, they may actually help defendants exercise their right to confrontation. The use of facility dogs could arguably strike a balance between the rights of victims *and* defendants: Defendants can confront their accusers, and vulnerable witnesses may be protected from undue stress and emotional hardship. The quality of testimony that could be elicited from such witnesses due to the comfort of a facility dog may outweigh the negligible prejudice that could occur. Indeed, support dogs have been shown to reduce anxiety among eyewitnesses who are interviewed following a crime (Peters, 2017).

Similar to case law concerning the acceptance of comfort items accompanying young witnesses during trial, the use of facility dogs during trial has provided a basis for appeal in several recent cases. In *People v. Tohom* (2013), a child was sexually assaulted multiple times by her father (the defendant), twice resulting in pregnancies that were aborted. The victim was diagnosed with PTSD, felt highly unsafe, and was unable to discuss the assaults. At trial, the State sought the use of a facility dog for the then 15-year-old victim on the basis that being accompanied by the dog would reduce her anxiety and facilitate her ability to speak about the crimes. The court permitted the dog, and the defendant was found guilty of predatory sexual assault against a child. On appeal, the defense argued that the use of the dog was unwarranted under the law, restricted the defendant’s right to a fair trial by inducing sympathy, and interfered with cross-examination of the victim. The higher court rejected this appeal, stating that there were no overt signs of prejudice due to the presence of the dog, that the ability to cross-examine the victim was not hindered, and that state laws permitted the use of the dog. A similar argument was made in *State of Washington v. Dye* (2013) in which the home of a mentally handicapped man was burglarized. Because of the victim’s intense fear and anxiety about testifying, the State sought to allow a facility dog to assist him during testimony. The court allowed the dog, and the defendant was found guilty of residential burglary. On appeal, it was argued that the dog induced undue sympathy for the victim, thereby violating the defendant’s right to a fair trial. The appeal was rejected on the basis that there was no measurable impact of the presence of the dog on the jury, that there were ample opportunities for the defense to address the presence of the dog with the jury, and that the jury was properly instructed to not make assumptions regarding the use of the dog.

These are but a few of many examples in which judges have allowed vulnerable witnesses to testify while accompanied by courthouse facility dogs. In all cases, the court made assumptions about the psychological impact of facility dogs on jurors based on intuition concerning the jurors’ reactions rather than empirical evidence. Thus, our research was aimed at investigating this issue: Does the presence of a facility dog, compared to other comfort items, lead to more favorable impressions of a child witness, thus prejudicing the jury against a defendant? In two experiments, we explored whether facility dogs (a newer accommodation) versus comfort toys (a more traditional accommodation) might differentially affect jurors’ judgments about child witnesses and, in turn, their assessments of the defendant, and under what circumstances these differences might exist.

Experiment 1

The purpose of Experiment 1 was to investigate whether the presence of a facility dog or comfort toy accompanying a child witness is prejudicial against a defendant. Prejudice would be indicated if mock jurors disproportionately punished the defendant when a vulnerable witness was accompanied by either of these accommodations. This study also explored the potential for comfort items

Table 1. Experiment I Study Design.

Witness Type	Accommodation Type		
	Facility Dog	Teddy Bear	No Accommodation
Victim-witness	<i>n</i> = 50	<i>n</i> = 51	<i>n</i> = 52
Bystander-witness	<i>n</i> = 53	<i>n</i> = 51	<i>n</i> = 50
Total	<i>n</i> = 103	<i>n</i> = 102	<i>n</i> = 102

to affect jurors' decisions as a function of whether they accompany a victim witness or a bystander witness. It was hypothesized that accommodation type (facility dog vs. teddy bear vs. no accommodation) and witness type (victim witness vs. bystander witness) would interact to affect jurors' judgments of the child witness and defendant, which in turn would influence verdict and punishment decisions. Specifically, it was predicted that the presence of a facility dog would increase the perceived victimization (as measured by judgments of credibility, believability, etc.) of a child victim witness compared to the presence of a teddy bear or no accommodation. In turn, mock jurors would decide that greater harm had been suffered by the victim, leading mock jurors to be more punitive in their judgments of the defendant. However, it was anticipated that this effect would not be seen for the bystander witness. Further, it was posited that witness status would impact jurors' perceptions of child witness credibility, as research suggests that bystander witnesses are perceived to be more credible than victim witnesses (Holcomb & Jacquin, 2007). Last, we expected that the presence of any accommodation (facility dog or teddy bear) would result in greater anger and disgust compared to the control condition, which would be associated with harsher conviction rates and sentencing. If either facility dogs or comfort items are shown to be prejudicial, alternate accommodations must be explored. However, if such accommodations are not prejudicial, vulnerable witnesses should arguably be able to take advantage of the comfort they may offer.

Method

Participants

Participants ($N = 307$) were recruited via Amazon's Mechanical Turk (MTurk), an online paid participant pool, to serve as mock jurors (see Table 1). They were each paid US\$2.50 for their participation. To ensure data quality and external validity related to juror decision making within the United States, participant location was limited to the United States ("Tips for Requesters," 2018). Further, potential workers were excluded if they had an approval rate of less than 95%, and duplicate submissions were not paid ("Tips for Requesters," 2018). Research suggests Amazon's MTurk workers are reliable and that data collected via Amazon's MTurk are valid (Rand, 2012). Further, several classic in-lab studies have been replicated using samples recruited from Amazon's MTurk (Horton, Rand, & Zeckhauser, 2011).

Materials

Mock trial. The fictitious trial portrayed a child molestation case. Materials included a detailed summary followed by a partial trial transcript. Language in the summary and transcripts was varied based on the key manipulations of *accommodation* and *witness type*.

Summary. The defendant was accused of molesting his 6-year-old granddaughter and was charged with a Class 2 felony. The molestation was described as genital fondling over clothing, alleged to have occurred 4 times over the course of 6 months. The victim's sister, a 7-year-old, alleged to have seen the abuse and reported it to the girls' mother, whom reported it to the authorities. The summary text included a brief description of the defendant's version of the events. He claimed that the children were confused by some of his behaviors when they played together and stated that the children often made up fantastic stories and were manipulated into reporting the alleged events by their mother. The defendant denied all charges and claimed that he would never endanger the children.

The summary varied as a function of the experimental manipulations: In the *victim witness/dog condition*, participants read about the victim and her grandfather and were told a facility dog accompanied the child. The summary indicated that the dogs are used to reduce anxiety and are available to any witness who requires one. In the *bystander witness/dog condition*, the summary described that the alleged victim's sister was accompanied by the dog to reduce anxiety. In the *victim witness/teddy bear condition*, participants were told that the alleged victim was accompanied by a teddy bear to reduce anxiety. Similarly, in the *bystander witness/teddy bear condition*, the summary described that the alleged victim's sister was accompanied by a teddy bear. In the *victim witness/no accommodation* and *bystander/no accommodation conditions*, no accommodation was used, and thus none were described.

Transcript. The partial trial transcript included judicial instructions, opening and closing statements for the prosecution and defense, and the child witness' testimony on direct examination. To our knowledge, these are the first studies assessing the impact of facility dogs compared to other accommodations on perceptions of child witnesses. Thus, in these initial studies, cross-examination was not included since challenges to the child's account could arguably interfere with mock jurors' assessments of the courtroom accommodations. Similar to the summary, the trial transcript varied as a function of the experimental manipulations. The presence or absence of a facility dog or comfort toy (teddy bear) was manipulated through photographs: In the *facility dog* conditions, participants viewed three photographs of a young girl accompanied by a mock facility dog. In the *teddy bear* conditions, participants viewed three photographs of a young girl accompanied by a teddy bear. In the *no accommodation* conditions, participants viewed three photographs of a young girl without either a dog or a teddy bear. These photo manipulations were placed within the body of the text of the child's testimony. Photograph manipulations did not change for the *victim witness* or *bystander witness* conditions.

Witness type was also manipulated, so that half of the participants read a transcript of a child victim witness, while the other half read a transcript of a child bystander witness. The majority of the child's testimony remained the same and only the name of the child and the perspective of the abuse (first person or third person) changed. For instance, when the victim witness testified, the victim spoke of her personal experiences of molestation. When the bystander witness testified, she described the exact same acts of abuse, except from her own third-person perspective. All other evidence and testimony remained the same. Manipulation of the two experimental variables (i.e., accommodation and witness type) produced six different versions of the case materials.

Measures

Core-dependent measures. Participants answered several case-related items: Belief that the alleged victim was abused (*Do you believe that Samantha [the complainant] was abused?*, 1 = *definitely not abused*, 9 = *definitely abused*); confidence that the child was abused (*How confident are you in this judgment?*, 1 = *no confidence*, 9 = *strong confidence*); perceptions of the witness' convincingness (*How convincing was the child witness?*, 1 = *not at all convincing*, 9 = *very convincing*); credibility

(Credibility includes how accurate, trustworthy, and plausible a witness' testimony is. How credible is the child witness?, 1 = not at all credible, 9 = very credible); and accuracy (How accurate do you think was the eyewitness's account of the crime?, 1 = not accurate, 9 = very accurate); likelihood that the child was mistaken in her testimony (Lying is when one knows the truth but says something different. Sometimes people are not lying but believe something to be true that is not so. What is the likelihood that the child was mistaken and was not lying?, 1 = not at all likely, 9 = very likely); likelihood that the child witness intentionally lied in her testimony (Lying is when one knows the truth but says something different. Sometimes people are not lying but believe something to be true that is not so. How likely is it that the child intentionally lied about the abuse?, 1 = not at all likely, 9 = very likely); believability of the defendant (How believable was the defendant's explanation of the event?, 1 = not at all believable, 9 = very believable); strength of the case against the defendant (How strong do you think the case is against Dean Thomas [the defendant]?, 1 = weak case, 9 = strong case); verdict (Do you think the defendant is guilty or not guilty of child molestation?, guilty or not guilty); and sentence (If you believe the defendant is guilty, please choose a prison sentence ranging from 1 year to 15 years in prison).

Additional measures. Participants also completed items relating to mock jurors' experience of emotion (e.g., anger, disgust, fear, embarrassment, sadness, and happiness; 1 = not at all to 9 = extremely), the Need for Cognition Scale–short form (NFC) to explore possible mechanisms of prejudice (Cacioppo, Petty, & Kao, 1984), and the Toronto Empathy Questionnaire (TEQ) to measure trait empathy levels (Spreng, McKinnon, Mar, & Levine, 2009). In addition, participants answered demographic items including age, gender, ethnicity, political party affiliation, and level of education.

Procedure

The study was conducted online using the survey program Qualtrics, administered via MTurk. After reading the consent letter, participants were randomly assigned to read one of the six versions of the case materials. Randomization occurred automatically via the Qualtrics platform. They then answered a series of questions and measures, along with general demographic questions.

Results

Of the 307 participants, 45.9% were female with a mean age of 33.91 years ($SD = 11.18$). The participants were 79.9% White, 7.5% Black, 6.2% Asian/Pacific Islander, 3.6% Hispanic, 1% Native American, and 1.9% "Other."

Factor Score

In order to simplify analyses, a principal axis factor analysis was conducted on several primary dependent variables that measured judgments of the trial, including *Do you believe that Samantha (the complainant) was abused?*, *How convincing was the child witness?*, *How credible is the child witness?*, *What is the likelihood that the child witness was mistaken and was not lying?*, *How accurate do you think was the eyewitness's account (the child witness) of the crime?*, and *How strong do you think the case is against Dean Thomas (the defendant)?* From these dependent variables, a single factor was extracted that accounted for 71.78% of the total variance in the items. These dependent measures were combined into a single standardized factor score (witness credibility), which was used for subsequent analyses.

Table 2. ANOVA Results for Witness Credibility.

Predictor	df	F	p	η_p^2
Accommodation type	2	0.76	.47	.005
Witness type	1	2.39	.12	.008
Accommodation Type \times Witness Type	2	0.83	.44	.005
Error	301			

Note. ANOVA = analysis of variance.

Table 3. ANOVA Results for Witness Credibility.

Predictor	df	F	p	η_p^2
Accommodation type	2	0.78	.46	.005
Witness type	1	1.10	.30	.004
Need for Cognition	1	7.22	.008	.02
Accommodation Type \times Need for Cognition	2	1.07	.35	.007
Witness Type \times Need for Cognition	1	0.5	.48	.002
Accommodation Type \times Witness Type	2	2.72	.07	.02
Accommodation Type \times Witness Type \times Need for Cognition	2	3.46	.03	.02
Error	295			

Note. ANOVA = analysis of variance.

Witness Credibility

To test the hypothesis that accommodation and witness type would interact to affect jurors' judgments of the child witness, a two-way analysis of variance (ANOVA) was performed on the witness credibility factor score. The main effect of accommodation type, $F(2, 301) = .76, p = .47, \eta_p^2 = .005$, the main effect of witness type, $F(1, 301) = 2.39, p = .12, \eta_p^2 = .008$, and the interaction between accommodation type and witness type, $F(2, 301) = .83, p = .44, \eta_p^2 = .005$, were not significant (see Table 2).

A three-way ANOVA was conducted to explore the impact of accommodation type, witness type, and NFC on the witness credibility factor score. Analyses revealed no significant main effect of accommodation type, $F(2, 295) = .78, p = .46, \eta_p^2 = .005$, and no significant main effect of witness type, $F(1, 295) = 1.1, p = .30, \eta_p^2 = .004$. A significant main effect was found for NFC, $F(1, 295) = 7.22, p = .008, \eta_p^2 = .02$. No two-way interactions were found between accommodation type and NFC, $F(2, 295) = 1.07, p = .35, \eta_p^2 = .007$, or between witness type and NFC, $F(1, 295) = .5, p = .48, \eta_p^2 = .002$. A marginally significant two-way interaction was found between accommodation type and witness type, $F(2, 295) = 2.72, p = .07, \eta_p^2 = .02$. However, this effect was qualified by a three-way interaction between accommodation, witness, and NFC, $F(2, 295) = 3.46, p = .03, \eta_p^2 = .02$ (see Table 3).

In order to simplify exploration of the three-way interaction, NFC scores were split into a categorical variable at the median. The simple effects of witness type and accommodation type were tested within low and high NFC participants. For participants low in NFC, there was a marginal effect of witness type, $F(1, 155) = 2.90, p = .09, \eta_p^2 = .02$. Victim-witnesses ($M = .001, SD = .95$) were rated marginally more positively than bystander witnesses ($M = -.25, SD = .92$). There was no main effect of accommodation type and no interaction between witness type and accommodation type, $ps > .05$. For participants high in NFC, no significant main effects or interactions were found, $ps > .05$.

Table 4. Logistic Regression Analyses for Verdict.

Predictor	<i>b</i>	<i>SE</i> β	Wald's χ^2	<i>p</i>	Odds Ratio
Accommodation type			.11	.95	
Witness type	-0.20	.42	.23	.63	0.82
Accommodation Type \times Witness Type			.15	.93	
Witness Credibility	4.16	.49	72.23	<.001	64.27
Need for Cognition	0.01	.01	7.33	.01	1.01

Juror Empathy

A univariate ANOVA was used to explore the potential relation between accommodation and participants' scores of self-reported empathy. No main effect was found for accommodation on TEQ scores, $F(2, 305) = .12, p = .89$.

Verdict

A logistic regression analysis was used to determine whether verdict was impacted by accommodation and/or witness type. Analyses revealed that accommodation did not impact verdict, Wald = 0.11, $p = .95$. In addition, witness type did not impact verdict, Wald = 0.23, $p = .63$, odds ratio = .82, and there was no interaction between witness and accommodation type on verdict, Wald = 0.15, $p = .93$ (see Table 4).

However, logistic regression analyses revealed a significant effect of witness credibility on verdict, $b = 4.16, SE = .49, Wald = 72.23, p < .001$, odds ratio = 64.27. As perceptions of witness credibility increased in favorability, the likelihood that participants rated the defendant guilty increased. Analyses revealed that NFC significantly predicted verdict, $b = 0.01, SE = .01, Wald = 7.33, p = .01$, odds ratio = 1.01. As NFC scores increased, so did the likelihood that participants would rate the defendant guilty (see Table 4).

In order to test the hypothesis that courtroom accommodations may impact jurors' perceptions of the child witness, which in turn, may influence jurors' verdict decisions, a mediation analysis was performed. Dummy coding was utilized and the teddy bear accommodation was used as a reference group. "Teddy bear" versus "facility dog" was entered as the independent variable, while "no accommodation" versus "facility dog" was entered as a covariate. Results indicated that the direct effect of accommodation on verdict was not significant, $b = 0.03, SE = .56, p > .05$. In addition, there was no significant indirect effect through witness credibility, $b = -0.05, SE = .6, p > .05$.

Because previous research suggests that negative emotions, such as anger, can increase perceptions of blame and responsibility (Bright & Goodman-Delahunty, 2006), analyses were performed to test whether anger and/or disgust mediated the relationship between accommodation and verdict. Dummy coding was utilized and the teddy bear accommodation was used as a reference group. "Teddy bear" versus "facility dog" was entered as the independent variable, while "no accommodation" versus "facility dog" was entered as a covariate. Results indicated that the direct effect of "teddy bear" versus "facility dog" on disgust was significant, $b = -0.72, SE = .37, p = .05$. In addition, there was a significant direct effect of "teddy bear" versus "facility dog" on anger, $b = -0.7, SE = .3, p = .03$. The direct effect of disgust on guilt was also significant, $b = 0.27, SE = .07, p < .001$. In addition, the indirect effect of disgust on verdict was significant, $b = -0.19, SE = .12$, Lower Level Confidence Interval = $-.48$, Upper Level Confidence Interval = $-.01$. Results indicate that participants experienced less disgust in the facility dog versus teddy bear conditions. Thus, participants in the teddy bear conditions experienced more disgust compared to those in the courthouse dog conditions, which in turn increased the likelihood that the defendant was convicted.

Table 5. ANOVA Results for Sentencing.

Predictor	<i>df</i>	<i>F</i>	<i>p</i>	η_p^2
Accommodation type	2	0.09	.91	.002
Witness type	1	1.5	.22	.013
Accommodation Type × Witness Type	2	0.25	.78	.004
Error	112			

Note. ANOVA = analysis of variance.

Table 6. Statement of Findings for Experiment 1.

Dependent Variable	Predictor(s)	<i>p</i>
Witness Credibility	Accommodation type	<i>ns</i>
	Witness type	<i>ns</i>
	Need for Cognition	.008
	Accommodation Type × Witness Type × Need for Cognition	.03
Mock juror empathy Verdict	Accommodation type	<i>ns</i>
	Accommodation type	<i>ns</i>
	Witness type	<i>ns</i>
	Accommodation Type × Witness Type	<i>ns</i>
	Witness Credibility	<.001
	Need for Cognition	.01
Disgust and anger Sentencing	Disgust	LLCI = −.48, ULCI = −.01
	Teddy bear versus facility dog	≤.05
	Accommodation type	<i>ns</i>
	Witness type	<i>ns</i>
	Accommodation Type × Witness Type	<i>ns</i>
	Witness Credibility	.005
	Need for Cognition	<i>ns</i>

Sentencing

To test the hypothesis that witness and accommodation type would interact and impact sentencing, a two-way ANOVA was used. No main effect was found for accommodation type, $F(2, 112) = .09$, $p = .91$, $\eta_p^2 = .002$. In addition, no main effect was found for witness type, $F(1, 112) = 1.5$, $p = .22$, $\eta_p^2 = .013$. No interaction was found between witness type and accommodation type on defendant sentencing, $F(2, 112) = .25$, $p = .78$, $\eta_p^2 = .004$ (see Table 5).

Next, a linear regression was performed to test the hypothesis that ratings of the child would differentially affect sentencing. Analyses revealed that witness credibility significantly predicted sentencing, $\beta = .26$, $SE = .70$, $p = .005$, $R^2 = .07$. Need for Cognition was not significantly related to participants' sentencing of the defendant, $\beta = -.04$, $SE = .02$, $p = .64$, $R^2 = .002$.

See Table 6 for an overall statement of findings for Experiment 1.

Discussion

It was hypothesized that the presence of a facility dog would increase the perceived victimization of the child, thereby affecting defendant verdict and punishment. Our results showed no evidence of this. Instead, the results indicated that comfort items (like teddy bears) might be prejudicial against

defendants. In the current study, participant disgust mediated the relationship between accommodation type and verdict such that the presence of the teddy bear increased participant disgust, which in turn increased the likelihood of conviction. Sentencing did not vary by accommodation type. In addition, analyses revealed no effect of witness type or accommodation on ratings of witness credibility, and witness credibility did not mediate the relationship between accommodation and witness type on juror verdicts. This is important to note as arguments have been made consistently that facility dogs might be prejudicial against defendants by increasing the perceived credibility of witnesses.

Generally, verdict and sentence varied by witness credibility. As jurors' perceptions of witness credibility increased, so did the likelihood that the defendant was convicted and sentenced longer to prison. However, witness status (victim versus bystander) did not influence mock jurors' perceptions of the child's credibility. This finding contradicts previous research that suggests defendants may be perceived as guiltier for child sexual abuse cases with a bystander witness compared to a victim witness (Holcomb & Jacquin, 2007). Further, some research indicates that victim witnesses' testimony is perceived as less plausible than testimony from a bystander witness (Holcomb & Jacquin, 2007). These differing results may be due to the content of the testimony witnesses gave; compared to previous research, the current study explored molestation versus sexual abuse. Jurors may find molestation (here, fondling over clothing) more plausible in general than other forms of child sexual abuse.

Previous literature suggests that emotions such as anger and disgust are related to increased moral outrage, which, in turn, may increase mock juror confidence in a guilty verdict involving a gruesome crime (Salerno & Peter-Hagene, 2013). Importantly, however, anger was only related to increased moral outrage when co-occurring with at least a moderate level of disgust, although disgust was always predictive of moral outrage, regardless of level of anger (Salerno & Peter-Hagene, 2013). Our results revealed a small effect of accommodation type on participants' levels of experienced anger such that participants were angrier in the teddy bear than facility dog conditions. In addition, disgust mediated the relationship between accommodation type and verdict: Those in the teddy bear conditions experienced more disgust than those in the facility dog conditions, which increased guilty verdicts. In other words, the presence of a facility dog *decreased* participant disgust, which decreased the likelihood that the defendant would be convicted. These findings are consistent with previous research that shows disgust is a more consistent predictor of moral outrage than anger (Salerno & Peter-Hagene, 2013). One possibility is that the child clutching a teddy bear (presumably the child's own) signaled to jurors that the child was harmed to a greater extent than she who testified with the more neutral facility dog. Comfort items may portray something highly personal about the child and may make the alleged victim appear extremely vulnerable and childlike. In contrast, perhaps facility dogs neutralize anger and disgust in the courtroom and depersonalize the situation because jurors are aware that the facility dog does not belong to the testifying witness.

This study provides initial evidence to suggest that, contrary to many beliefs, facility dogs may not prejudice jurors against defendants or bias jurors in favor of the witnesses they accompany. It is important to explore this further given the great debate among attorneys and victim advocates: If facility dogs are not prejudicial for defendants or witnesses, then vulnerable witnesses ought to be allowed this comfort. In order to explore these issues further, Experiment 2 was conducted to investigate the potential impact that facility dogs or other accommodations (comfort toys) might have on mock juror decision-making in other contexts. Experiment 1 investigated the relationship between accommodation type and jurors' decisions in a case somewhat typical of those in which a child would be permitted a facility dog based on legal precedence. However, children are often victims of and witnesses to other crimes, including those not of a sexual nature. It is important to explore the impact of facility dogs on mock juror decision-making in other crime scenarios, as our

Table 7. Experiment 2 Study Design.

Crime Severity	Accommodation Type		
	Facility Dog	Teddy Bear	No Accommodation
More severe	<i>n</i> = 38	<i>n</i> = 34	<i>n</i> = 34
Less severe	<i>n</i> = 36	<i>n</i> = 36	<i>n</i> = 32
Total	<i>n</i> = 74	<i>n</i> = 70	<i>n</i> = 66

current findings may be grounded in the heinous nature of child molestation and may not generalize to less morally charged cases.

Experiment 2

Experiment 1 examined how the presence of a facility dog versus a more traditional comfort item impacts jurors in the context of the typical scenario in which a dog is used in trials: child molestation or sexual abuse proceedings. Our findings in this scenario suggest that—contrary to the concerns expressed by many in the legal system—a facility dog accompanying a child witness may not bias mock jurors in favor of the witness *or* against the defendant. It is impossible to know, however, whether the nature of the crime read by participants impacted these findings. It is possible that comfort items (like a personal teddy bear) are in fact *more* prejudicial than facility dogs specifically in cases in which young witnesses are at their most vulnerable. Thus, in Experiment 2, we investigated mock jurors' judgments of child witnesses and defendants in two cases of differing severity: sexual conduct with a minor (identical to Experiment 1) and strong-armed robbery of a minor. In order to highlight the use of such accommodations for witnesses as ordinarily would be done during a trial, Experiment 2 also contained a judicial instruction on the use of such accommodations in order to draw even more attention to the facility dog and comfort item (again, the child's teddy bear). In Experiment 2, only the alleged victim testified.

It was predicted that, regardless of crime, the presence of a teddy bear would be more biasing in favor of the witness and against the defendant compared to the facility dog, but that a larger effect would be found when the crime was less severe. That is, with a more severe (a molestation) versus less severe (a robbery) crime, the nature of the case and evidence presented may create a ceiling effect in jurors' judgments such that it largely nullifies the effects that a comfort item might otherwise have.

Method

Participants

Two hundred ten undergraduate students at a southeastern liberal arts college participated in this study in exchange for course credit (see Table 7). Participants were selected from various courses across disciplines and majors (and mostly outside of the psychology department) and it was ensured that course content was in no way related to the general topic of this research. Participants were 58.4% female with a mean age of 19.94 years (*SD* = 1.76). Participants were 79.9% White, 13.4% Black, 1.9% Hispanic, 1.9% Asian/Pacific Islander, 1.9% "Other," and 1% Native American.

Materials

Mock trial. The fictitious trial portrayed either a child molestation or a strong-armed robbery case. Materials included a detailed summary and a partial trial transcript.

Summary. The child molestation case was identical to that detailed in Experiment 1. In the strong-armed robbery version, the defendant was a stranger accused of robbing a 6-year-old child inside a gas station convenience store. The child was given \$60 by her mother, who waited in the car, to go inside the store to pay for gas and to buy herself a snack. The perpetrator saw the child enter the store with money in hand, approached her, grabbed her arm, and demanded the money, telling her not to tell anyone or he would hurt her. The store employee was in the store office during the crime. The child's mother found her on the floor, upset and crying, when she came inside to find out what was taking so long. The defendant was apprehended several blocks away due to his match to the perpetrator's general physical description provided by the child. He denied the charges and claimed the child was mistaken about his identity. Similar to Experiment 1, in both cases (molestation and robbery) during the child's trial testimony, she was accompanied by a facility dog, a teddy bear, or no accommodation.

Transcript. The partial trial transcript included judicial instructions, opening and closing statements for the prosecution and defense, and the child witness' testimony on direct examination. In the facility dog and teddy bear conditions, an additional judicial instruction was given after opening statements. The judge commented on the use of the accommodation and explained that jurors should not take the accommodation into consideration when deciding the case. In addition, in both the facility dog and teddy bear conditions, an additional judicial instruction was added to the judge's closing remarks again reminding jurors to disregard the accommodation used. The presence or absence of a facility dog or comfort toy was manipulated through photographs identical to those used in Experiment 1.

Measures

Core-dependent measures. All of the core-dependent measures from Experiment 1 were utilized in Experiment 2. In addition, mock jurors were asked: *How likable is the victim?* (1 = *no at all likable*, 9 = *extremely likable*); *To what degree do you think the evidence was sufficient to support conviction?* (1 = *not at all sufficient*, 9 = *completely sufficient*); and *How likable is the defendant?* (1 = *not at all likable*, 9 = *extremely likable*). Further, in an attempt to tease apart mock jurors' feelings toward the defendant and victim from their general mood following presentation of the case summary, mock jurors were also asked: *How empathetic do you feel toward the victim?* (*Empathy is defined as understanding of another's feelings*; 1 = *not at all empathetic*, 9 = *extremely empathetic*); *How much anger do you feel toward the defendant?* (1 = *no anger*, 9 = *extreme anger*); *How sympathetic do you feel toward the victim?* (*sympathy is defined as sorrow for another's pain*; 1 = *not at all sympathetic*, 9 = *extremely sympathetic*); and *How much disgust do you feel toward the defendant?* (1 = *no disgust*, 9 = *extreme disgust*).

Additional measures. Participants completed the Positive and Negative Affect Schedule–Expanded Form (e.g., fear, anger, anxiety, disgust; Watson & Clark, 1999), the Moral Foundations Questionnaire to explore the impact of moral intuitions on mock juror decision-making (Graham, Haidt, & Nosek, 2008), and the Disgust Scale–Revised to measure individuals' sensitivity to disgust (Haidt, McCauley, & Rozin, 1994, modified by Olatunji et al., 2007). Participants answered demographic items including age, gender, ethnicity, political party affiliation, and year in school.

Table 8. ANOVA Results for Sentencing.

Predictor	<i>df</i>	<i>F</i>	<i>p</i>	η_p^2
Accommodation type	2	0.12	.89	.002
Crime severity	1	39.54	<.001	.23
Accommodation Type \times Crime Severity	2	1.02	.37	.02
Error	132			

Note. ANOVA = analysis of variance.

Procedure

Participants read all materials and completed all measures independently, but in small groups. After signing a consent form, participants were given one of the six versions of the case materials, each of which were selected blindly and at random by the experimenter to ensure random assignment. They then answered a series of questions and measures, along with general demographic questions.

Results

Verdict

Chi-square analyses revealed that verdict did not significantly vary by accommodation ($\chi^2 = .61, p = .74$) but did significantly vary by crime severity ($\chi^2 = 7.68, p = .006$). Next, logistic regression analyses were utilized to explore the impact of accommodation, crime severity, positive and negative affect, moral foundations, and disgust sensitivity on verdict. The overall model was significant ($\chi^2 = 24.52, p = .03$). Analyses revealed no significant effect of accommodation, positive or negative affect, moral foundations, or disgust sensitivity on verdict ($ps > .16$). However, crime severity significantly predicted verdict, such that the defendant was less likely to be convicted for the less severe crime, $b = -0.61, SE = .30, Wald = 4.04, odds ratio = .55, p = .04$.

Next, a two-way ANOVA was performed to investigate the relationship between accommodation and crime severity on verdict confidence. Accommodation did not predict verdict confidence, $F(2, 204) = 1.96, p = .14, \eta_p^2 = .02$. However, crime severity significantly predicted verdict confidence, $F(1, 204) = 8.02, p = .005, \eta_p^2 = .42$. Mock jurors who read the case regarding robbery were more confident in their verdict decision ($M = 75.34, SD = 19.22$) compared to those who read the case regarding child molestation ($M = 67.76, SD = 20.40$). There was no evidence of a significant interaction between accommodation and crime severity, $F(1, 204) = 1.49, p = .23, \eta_p^2 = .01$.

Sentencing

A two-way ANOVA was utilized to explore the impact of accommodation and crime severity on prison sentence. Accommodation did not significantly predict sentencing, $F(2, 132) = .12, p = .89, \eta_p^2 = .002$. However, mock jurors who read the case involving a robbery of a child sentenced the defendant to a significantly shorter prison sentence ($M = 2.79, SD = 2.65$) compared to those who read a case involving molestation, $M = 6.90, SD = 4.58, F(1, 132) = 39.54, p < .001, \eta_p^2 = .23$. There was no evidence of a significant interaction between accommodation and crime severity, $F(2, 132) = 1.02, p = .37, \eta_p^2 = .02$ (see Table 8).

Table 9. Belief and Confidence a Crime Occurred.

Variable	Wilks's	F	df	p	df	F	p
Crime severity	0.88	14.38	2	<.001			
Belief a crime occurred					1	25.80	<.001
Confidence a crime occurred					1	16.99	<.001
Accommodation type	1.00	0.19	4	.95			
Accommodation Type × Crime Severity	0.97	1.52	4	.19			

Table 10. Perceptions of the Child Witness.

Variable	Wilks's	F	df	p
Accommodation type	.96	.71	12	.74
Crime severity	.98	.83	6	.55
Accommodation Type × Crime Severity	.94	.97	12	.47

Belief and Confidence That a Crime Occurred

A multivariate analysis of variance (MANOVA) was used to explore the impact of accommodation and crime severity on belief and confidence that a crime occurred. Crime severity significantly predicted mock jurors' belief and confidence that a crime had occurred, $F(2, 203) = 14.38, p < .001$, Wilks's $\Lambda = .88, \eta_p^2 = .12$. However, there was no effect of accommodation, $F(4, 406) = .19, p = .95$, Wilks's $\Lambda = 1.00, \eta_p^2 = .002$, and no interaction between crime severity and accommodation on mock jurors' perceptions, $F(4, 406) = 1.52, p = .19$, Wilks's $\Lambda = .97, \eta_p^2 = .02$.

Mock jurors had less belief the crime had occurred in the child molestation case ($M = 5.88, SD = 1.80$) compared to the robbery case, $M = 7.19, SD = 1.97, F(1, 204) = 25.80, p < .001, \eta_p^2 = .11$. Further, mock jurors were less confident in their beliefs in the child molestation case ($M = 6.08, SD = 1.84$) compared to the robbery case, $M = 7.14, SD = 2.03, F(1, 204) = 16.99, p < .001, \eta_p^2 = .08$ (see Table 9).

Perceptions of the Child Witness

A MANOVA was used to explore the impact of accommodation and crime severity on mock jurors' perceptions of victim likability, credibility, convincingness, likelihood the victim lied, likelihood the victim was mistaken, and believability. Analyses revealed no effect of accommodation, $F(12, 392) = .71, p = .74$, Wilks's $\Lambda = .96, \eta_p^2 = .02$; no effect of crime severity, $F(6, 196) = .83, p = .55$, Wilks's $\Lambda = .98, \eta_p^2 = .03$; and no significant interaction between accommodation and crime severity, $F(12, 392) = .97, p = .47$, Wilks's $\Lambda = .94, \eta_p^2 = .03$ (see Table 10).

Empathy and Sympathy for the Child Witness

A MANOVA indicated that crime severity, $F(2, 202) = 5.66, p = .004$, Wilks's $\Lambda = .95, \eta_p^2 = .05$, but not accommodation, $F(4, 404) = 1.86, p = .12$, Wilks's $\Lambda = .96, \eta_p^2 = .02$, predicted mock jurors' empathy and sympathy for the child witness. Further, there was no interaction between crime severity and accommodation, $F(4, 404) = .55, p = .70$, Wilks's $\Lambda = .99, \eta_p^2 = .005$. Sympathy, but not empathy, $F(1, 203) = 1.64, p = .20, \eta_p^2 = .008$, was higher for the molestation victim ($M = 6.75, SD = 1.83$) compared to the robbery victim, $M = 6.08, SD = 2.24, F(1, 203) = 5.80, p = .02, \eta_p^2 = .03$ (see Table 11).

Table 11. Empathy and Sympathy for the Child Witness.

Variable	Wilks's	F	df	p	df	F	p
Crime severity	.95	5.66	2	.004			
Sympathy					1	5.80	.02
Empathy					1	1.64	.20
Accommodation type	.96	1.86	4	.12			
Accommodation Type × Crime Severity	.99	0.55	4	.70			

Table 12. Perceptions of the Defendant.

Variable	Wilks's	F	df	p	df	F	p
Crime severity	.79	8.57	6	<.001			
Believable					1	7.69	.006
Anger					1	24.11	<.001
Disgust					1	37.58	<.001
Case strength					1	0.53	.47
Evidence sufficient to support conviction					1	0.43	.51
Likable					1	1.73	.19
Accommodation type	.96	0.72	12	.74			
Accommodation Type × Crime Severity	.93	1.23	12	.26			

Perceptions of the Defendant

A MANOVA was utilized to explore the impact of accommodation and crime severity on mock jurors' perceptions of the strength of the case, defendant believability, evidence sufficiency to support a conviction, anger and disgust felt toward the defendant, and defendant likability. Crime severity, $F(6, 198) = 8.57, p < .001$, Wilks's $\Lambda = .79, \eta_p^2 = .21$, but not accommodation, $F(12, 396) = .72, p = .74$, Wilks's $\Lambda = .96, \eta_p^2 = .02$, predicted mock jurors' perceptions of the defendant and the case. There was no evidence of a significant interaction between crime severity and accommodation, $F(12, 396) = 1.23, p = .26$, Wilks's $\Lambda = .93, \eta_p^2 = .04$.

The defendant was perceived as more believable in the robbery ($M = 5.35, SD = 1.90$) compared to child molestation case, $M = 4.58, SD = 1.96, F(1, 203) = 7.69, p = .006, \eta_p^2 = .04$. Further, mock jurors felt more anger toward the defendant in the case of child molestation ($M = 5.67, SD = 2.29$) compared to robbery, $M = 4.06, SD = 2.40, F(1, 203) = 24.11, p < .001, \eta_p^2 = .11$, and felt more disgust for the defendant in the case of child molestation ($M = 5.88, SD = 2.36$) compared to robbery, $M = 3.86, SD = 2.29, F(1, 203) = 37.58, p < .001, \eta_p^2 = .16$. The case was perceived as equally strong across conditions, $F(1, 203) = .53, p = .47, \eta_p^2 = .003$. Further, across conditions, mock jurors perceived the cases to have similarly sufficient evidence to support a conviction, $F(1, 203) = .43, p = .51, \eta_p^2 = .002$. Last, the defendant was perceived as equally likable across conditions, $F(1, 203) = 1.73, p = .19, \eta_p^2 = .008$ (see Table 12).

See Table 13 for an overall statement of findings for Experiment 2.

Discussion

Experiment 2 sought to further examine the use of facility dogs versus other traditional accommodations provided to witnesses during trial testimony as a function of crime severity. Overall, the results provide some evidence that facility dogs are not prejudicial against defendants or in favor of

Table 13. Statement of Findings for Experiment 2.

Dependent Variable	Predictor(s)	<i>p</i>	
Verdict	Accommodation type	<i>ns</i>	
	Crime severity	≤.04	
	Positive affect	<i>ns</i>	
	Negative affect	<i>ns</i>	
	Moral foundations	<i>ns</i>	
	Disgust sensitivity	<i>ns</i>	
Verdict confidence	Accommodation type	<i>ns</i>	
	Crime severity	.005	
Sentencing	Accommodation Type × Crime Severity	<i>ns</i>	
	Accommodation type	<i>ns</i>	
	Crime severity	<.001	
Belief a crime occurred	Accommodation Type × Crime Severity	<i>ns</i>	
	Accommodation type	<i>ns</i>	
	Crime severity	<.001	
Confidence a crime occurred	Accommodation Type × Crime Severity	<i>ns</i>	
	Accommodation type	<i>ns</i>	
	Crime severity	<.001	
Perceptions of the child witness	Accommodation Type × Crime Severity	<i>ns</i>	
	Accommodation type	<i>ns</i>	
	Crime severity	<i>ns</i>	
Empathy for child witness	Accommodation Type × Crime Severity	<i>ns</i>	
	Accommodation type	<i>ns</i>	
	Crime severity	<i>ns</i>	
Sympathy for child witness	Accommodation Type × Crime Severity	<i>ns</i>	
	Accommodation type	<i>ns</i>	
	Crime severity	.02	
Perceptions of the defendant	Accommodation Type × Crime Severity	<i>ns</i>	
	Believable	Crime severity	.006
	Anger toward	Crime severity	<.001
	Disgust toward	Crime severity	<.001
	Perceptions of case strength	Crime severity	<i>ns</i>
	Evidence sufficient for conviction	Crime severity	<i>ns</i>
	Likable	Crime severity	<i>ns</i>

the vulnerable witnesses they accompany. We found no evidence for differences in conviction rates, sentencing, belief, or confidence that a crime had occurred, perceptions of credibility of the young victim, sympathy or empathy toward the victim, or perceptions of the defendant or his case based on accommodation—differences in these measures were only predicted by crime severity. Contrary to our hypotheses in Experiments 1 and 2, facility dogs were not found to be biasing in favor of young, vulnerable witnesses, or against defendants across two very different classes of crime.

Our findings concerning crime severity were not surprising. Mock jurors were significantly more likely to convict the defendant of child molestation compared to robbery, regardless of accommodation. Those who read a case regarding child molestation were less confident in their verdict decision and sentenced the defendant to significantly longer time in prison, but were generally less confident that a crime had occurred and doubted their perceptions more compared to mock jurors who read about robbery. Regardless of the accommodation the child victim used, if any, the case involving child molestation led mock jurors to feel more anger and disgust toward the defendant, and they perceived him as less believable compared to the robbery case, even though mock jurors perceived

the robbery and child molestation cases to be equally strong and to have similarly sufficient evidence to support conviction. Previous research suggests a powerful effect of anger on punitiveness (Lerner, Goldberg, & Tetlock, 1998) and likelihood of conviction (Bright & Goodman-Delahunty, 2006).

Importantly, the child witness was deemed equally credible across crime severity and accommodation. Mock jurors' feelings of sympathy for the child victim were notably higher in the case of child molestation compared to robbery. These results demonstrate the strength of the crime severity manipulation. Experiments 1 and 2 suggest that, across two very different crimes, facility dogs may not be prejudicial to defendants or bias mock jurors in favor of vulnerable witnesses: Even for the heinous crime of child molestation, mock jurors' perceptions of the vulnerable witness and defendant did not vary by courtroom accommodation.

General Discussion

Children required to testify in court can suffer various negative emotional consequences and be subject to retraumatization (Goodman et al., 1992), thus necessitating the accompaniment of an item to provide comfort during testimony. The current research examined how facility dogs in the courtroom, compared to other more traditional accommodations, may influence mock jurors' judgments of vulnerable witnesses and defendants. Defense attorneys routinely argue against the use of facility dogs for young and/or vulnerable witnesses for in-court testimony. For instance, one past president of the Colorado Criminal Defense Bar, Dan Recht, says that the use of dogs in the courtroom raises concerns, suggesting that jurors might view the witness differently when accompanied by a dog on the stand, as "... it runs the great risk of prejudicing a jury. It's as if saying to a jury this child is in fact traumatized, and that might be the issue in the case" ("Wagging Trials," 2012). These remarks echo those of many who argue against the use of facility dogs to assist vulnerable witnesses on the stand (e.g., Bowers, 2013) as it may interfere with a defendant's due process rights.

However, across two studies, we found no evidence to suggest that a facility dog, compared to a comfort item or no accommodation, prejudicially influenced mock jurors' decisions regarding defendants when it came to verdict, verdict confidence, or sentencing. In Experiment 1, a teddy bear comfort item, but not a facility dog, increased mock juror anger and disgust, which was associated with an increased likelihood of conviction. Further, accommodation was unrelated to perceptions of witness credibility for victim witnesses or bystander witnesses. In Experiment 2, only crime severity was predictive of verdict—accommodations, positive and negative affect, moral foundations, and disgust sensitivity were not predictive of likelihood of conviction. Instead, mock jurors who read the case detailing child molestation were overall more likely to convict than those who read about the robbery. Further, in Experiment 2, we found that accommodation did not influence jurors' perceptions of the defendant including believability and perceptions of his case strength. Thus, our findings from the current studies do not suggest that facility dogs that accompany witnesses during testimony are prejudicial to defendants.

Additionally, we found no effect of accommodation on important measures of mock jurors' perceptions of young witnesses. Across all vignettes, accommodation did not predict jurors' perceptions of the child witness' believability, convincingness, credibility, or accuracy. Further, we found that accommodation was unrelated to jurors' empathy (Experiment 2) or sympathy (Experiment 2) for the young victim. Instead, we found that perceptions of witness credibility predicted likelihood of conviction and sentencing (Experiment 1). An important direction for future research is to determine whether fact finders are also immune to the presence of a facility dog in court when it comes to other crimes and witness demographics (e.g., domestic violence victims, male victims). Importantly, research examining how mock jurors react to a teenage male and female alleged victim of sexual abuse accompanied by a facility dog during testimony suggests strikingly similar results to those found in the current studies (McQuiston & Burd, 2018).

We found some evidence in Experiment 1 that comfort items, but not facility dogs, may bias jurors against defendants: Mock jurors who viewed a child accompanied by her own teddy bear were more likely to experience anger and disgust, which in turn impacted their likelihood of convicting the defendant compared to those who saw a young witness accompanied by a facility dog or who used no courtroom accommodation. This finding is unsurprising in light of research indicating that these particular emotions can predict moral outrage, which may influence confidence in guilt (Salerno & Peter-Hagene, 2013). This result supports the belief of some who argue that personal items, like stuffed animals, likely impact jurors more so than the presence of a facility dog, particularly if the dog is kept out of sight (“Wagging Trials,” 2012). Notably, a support person accompanying a child witness during testimony may also negatively impact perceptions of a child witness’ credibility (McAuliff et al., 2015). Taken together, these findings suggest that a facility dog may, at least in some contexts, be a less biasing accommodation.

The current studies are not without limitations. For instance, mock jurors read that the facility dogs were made available to any witness who *requires* one in order to reduce anxiety. Future research should explore the potential impact of using “requires” compared to alternatives, like “requests.” Mock jurors may infer proof of victimization when told that a victim required the use of a facility dog to reduce anxiety. It will also be important for future research on this topic to include the cross-examination testimony of the witness who is accompanied by a facility animal. Cross-examination is needed to more fully examine the potential biasing impact of the accommodation variable on decision-making studied here. It would be interesting to examine whether and how the presence of an accommodation in court affects the behavior of the attorneys involved. For instance, are defense attorneys more cautious in how they cross-examine a witness when an accommodation is present? Or is their style more aggressive as an attempt to counteract any potential sympathy the accommodation evokes among jurors?

Additionally, research should examine jurors’ reactions to a live interaction between an alleged victim and a facility dog compared to when a witness utilizes a comfort item in order to test whether the current findings replicate using a more realistic methodology. For instance, in one rape trial, defense counsel argued for prosecutorial misconduct due to the use of a facility dog because the dog reportedly “push[ed] the girl gently with her nose” whenever the girl hesitated during testimony (Glaberson, 2011). The defense attorney stated, “Every time [the victim] stroked the dog, it sent an unconscious message to the jury that she was under stress because she was telling the truth.” This type of dynamic interaction is impossible to recreate using still photographs. Future research implementing a live staged paradigm may more strongly activate mock jurors’ empathy and/or sympathy, thereby impacting their decisions in important ways. Further, the deliberation process can impact how jurors process information presented during a trial when it comes to, for example, memories for the evidence, confidence, verdicts, and sentencing (see Devine, 2012, for a review). Thus, it will be important for research in this area to examine how mock jurors’ discussions during deliberations affect their judgments about vulnerable witness accommodations. Notably, research comparing the ecological validity of mock jury studies generally, and that comparing how trial materials are presented (e.g., via transcript or video), largely suggest that presentation medium has little impact on mock juror decision-making (Bornstein, 1999).

These results also highlight the need to examine whether and how the presence of a facility dog influences the quality and quantity of information vulnerable witnesses provide. Children’s advocacy centers increasingly utilize therapy animals as an aid in forensic interviews to increase comfort and build rapport, which in turn may increase the amount of accurate information child witnesses provide to investigators. Observational studies show that interactions between victimized children and therapy dogs in a forensic setting often result in positive outcomes ranging from reduced anxiety to increased communication (e.g., Copeland, 2010, as cited in Holton, 2015). More directly exploring the impact of therapy dogs on children’s rates of true abuse disclosures, Holton (2015) found that

children accompanied by a therapy dog during an interview were significantly more likely to disclose abuse for substantiated cases. Thus, research should investigate whether these findings extrapolate to in-court testimony: Do facility dogs promote more effective communication for vulnerable witnesses and, thus, increased completeness of testimony compared to other accommodations? If facility dogs provide comfort without prejudice in court, it will be important for the legal system to consider those empirical findings as it moves forward in its treatment of and rulings concerning vulnerable witnesses and defendants in the courtroom.

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References

- Berry, A., Borgi, M., Francia, N., Alleva, E., & Cirulli, F. (2013). Use of assistance and therapy dogs for children with autism spectrum disorders: A critical review of the current evidence. *The Journal of Alternative and Complementary Medicine, 19*, 73–80. doi:10.1089/acm.2011.0835
- Bornstein, B. H. (1999). The ecological validity of jury simulations: Is the jury still out? *Law and Human Behavior, 23*, 75–91.
- Bowers, S. V. (2013). The use of “therapy dogs” in Indiana courtrooms: Why a dog might not be a defendant's best friend. *Indiana Law Review, 46*, 1289–1315.
- Bradley, P. (2014). Therapy dogs in the courtroom as advocates for child witnesses: An interpretive phenomenological analysis of judges' opinions, experiences, and rulings (Unpublished doctoral dissertation). Texas A&M University–Commerce, Commerce.
- Bright, D. A., & Goodman-Delahunty, J. (2006). Gruesome evidence and emotion: Anger, blame, and jury decision-making. *Law and Human Behavior, 30*, 183–202.
- Cacioppo, J. T., Petty, R. E., & Kao, C. F. (1984). The efficient assessment of need for cognition. *Journal of Personality Assessment, 48*, 306–307. doi:10.1207/s15327752jpa4803_13
- Crenshaw, D. A., Stella, L., O'Neill-Stephens, E., & Walsen, C. (2016). Developmentally and trauma-sensitive courtrooms. *Journal of Humanistic Psychology, 1*–17. doi:10.1177/0022167816641854
- Dellinger, M. (2009). Using dogs for emotional support of testifying victims of crime. *Animal Law Review, 15*, 171–192.
- Devine, D. J. (2012). *Jury decision making: The state of the science*. New York: New York University Press.
- Fed. R. Evid. 611 Pub. L. 93–595, §1 (Jan. 2, 1975, 88 Stat. 1936; Mar. 2, 1987, eff. Oct. 1, 1987; Apr. 26, 2011, eff. Dec. 1, 2011).

- Glaberson, W. (2011, August 8). Be helping a girl testify at a rape trial, a dog ignites a legal debate. *The New York Times*. Retrieved from http://www.nytimes.com/2011/08/09/nyregion/dog-helps-rape-victim-15-testify.html?pagewanted=all&_r=0
- Goodman, G. S., Quas, J. A., Bulkley, J., & Shapiro, C. (1999). Innovations for child witnesses: A national survey. *Psychology, Public Policy, and Law*, 5, 255–281. doi:10.1037/1076-8971.5.2.255
- Goodman, G. S., Taub, E. P., Jones, D. P. H., England, P., Port, L. K., Rudy, L., . . . Melton, G. B. (1992). Testifying in criminal court: Emotional effects on child sexual assault victims. *Monographs of the Society for Research in Child Development*, 57, 1–159. doi:10.2307/1166127
- Graham, J., Haidt, J., & Nosek, B. (2008). Moral Foundations Questionnaire. Retrieved from <http://www.moralfoundations.org/questionnaires>
- Grimm, A. L. (2013). An examination of why permitting therapy dogs to assist child-victims when testifying during criminal trials should not be permitted. *The Journal of Gender, Race, and Justice*, 16, 263–292.
- Haidt, J., McCauley, C., & Rozin, P. (1994). Individual differences in sensitivity to disgust: A scale sampling seven domains of disgust elicitors. *Personality and Individual Differences*, 16, 701–713.
- Holcomb, M. J., & Jacquin, K. M. (2007). Juror perceptions of child eyewitness testimony in a sexual trial. *Journal of Child Sexual Abuse*, 16, 79–95. doi:10.1300/J070v16n02_05
- Holton, J. H. E. (2015). Applying problem-of-practice methods from the discipline of higher education within the justice system: Turning the concept of therapy dogs for child victims into a statewide initiative (Unpublished doctoral dissertation). University of Central Florida, Orlando.
- Horton, J. J., Rand, D. G., & Zeckhauser, R. J. (2011). The online laboratory: Conducting experiments in a real labor market. *Experimental Economics*, 14, 399–425.
- Kamioka, H., Okada, S., Tsutani, K., Park, H., Okuizumi, H., Handa, S., . . . Mutoh, Y. (2014). Effectiveness of animal-assisted therapy: A systematic review of randomized controlled trials. *Complementary Therapies in Medicine*, 22, 371–390. doi:10.1016/j.ctim.2013.12.016
- Lass-Hennemann, J., Peyk, P., Streb, M., Holz, E., & Michael, T. (2014). Presence of a dog reduces subjective but not physiological stress responses to an analog trauma. *Frontiers in Psychology*, 5, 1–7. doi:10.3389/fpsyg.2014.01010
- Lerner, J. S., Goldberg, J. H., & Tetlock, P. E. (1998). Sober second thought: The effects of accountability, anger, and authoritarianism on attributions of responsibility. *Personality and Social Psychology Bulletin*, 24, 563–574. doi:10.1177/0146167298246001
- McAuliff, B. D., Lapin, J., & Michel, S. (2015). Support person presence and child victim testimony: Believe it or not. *Behavioral Sciences and the Law*, 33, 508–527.
- McQuiston, D., & Burd, K. (2018, August). Dogs in the courthouse: Current research and implications. Paper presented in the *Emotional Support Animals and Service Dogs—Definitions, Roles and Regulations*. Symposium at the annual meeting of the American Psychological Association, San Francisco, CA.
- Nagengast, S. L., Baun, M. M., Megel, M., & Leibowitz, M. J. (1997). The effects of the presence of a companion animal on physiological arousal and behavioral distress in children during a physical examination. *Journal of Pediatric Nursing*, 12, 323–330. doi:10.1016/S0882-5963(97)80058-9
- Nascondiglio, A. (2016). The cost of comfort: Protecting a criminal defendant’s constitutional rights when child witnesses request comfort accommodations. *New York Law School Law Review*, 61, 395–410.
- O’Haire, M. E., Guérin, N. A., & Kirkham, A. C. (2015). Animal-assisted intervention for trauma: A systematic literature review. *Frontiers in Psychology*, 6, 1121. doi:10.3389/fpsyg.2015.01121
- Olatunji, B. O., Williams, N. L., Tolin, D. F., Abramowitz, J. S., Sawchuk, C. N., Lohr, J. M., & Elwood, L. S. (2007). The Disgust Scale: Item analysis, factor structure, and suggestions for refinement. *Psychological Assessment*, 19, 281–297.
- People v. Tohom, 109 A.D.3d 253, 969 N.Y.S.2d 123. (App. Div. 2013).
- Peters, C. S. (2017). Effects of support dogs on eyewitness anxiety during questioning. *Society & Animals*, 25, 105–118.

- Polheber, J. P., & Matchock, R. L. (2014). The presence of a dog attenuates cortisol and heart rate in the Trier Social Stress Test compared to human friends. *Journal of Behavioral Medicine, 37*, 860–867. doi:10.1007/s10865-013-9546-1
- Rand, D. G. (2012). The promise of Mechanical Turk: How online labor markets can help theorists run behavioral experiments. *Journal of Theoretical Biology, 299*, 172–179.
- Roby, E. (2015). Friend indeed: Adult witnesses and facility dogs in the courtroom. *Mid-Atlantic Journal on Law and Public Policy, 3*, 55–72.
- Salerno, J. M., & Peter-Hagene, L. C. (2013). The interactive effects of anger and disgust in moral outrage and judgments. *Psychological Science, 24*, 2069–2078. doi:10.1177/0956797613486988
- Sas, L. D. (1991). *Reducing the system-induced trauma for child sexual abuse victims through court preparation, assessment and follow-up* (Final Report, Project No. 4555-1-125, National Welfare Grants Division, Health and Welfare Canada). London, Ontario: London Family Court Clinic.
- Saywitz, K. J., & Nathanson, R. (1993). Children's testimony and their perceptions of stress in and out of the courtroom. *Child Abuse and Neglect, 17*, 613–622. doi:10.1016/0145-2134(93)90083-H
- Sigler, R. T., Crowley, J. M., & Johnson, I. (1990). Judicial and prosecutorial endorsement of innovative techniques in the trial of domestic abuse cases. *Journal of Criminal Justice, 18*, 443–453. doi:10.1016/0047-2352(90)90059-K
- Smith v. State, 119 P.3d 411. (Wyo. 2005).
- Spreng, R. N., McKinnon, M. C., Mar, R. A., & Levine, B. (2009). The Toronto empathy questionnaire: Scale development and initial validation of a factor-analytic solution to multiple empathy measures. *Journal of Personality Assessment, 91*, 62–71. doi:10.1080/00223890802484381
- State v. Cliff, 782 P.2d 44 (Idaho Ct. App. 1989).
- State v. Dye, 309 P.3d 1192, 178 Wash. 2d 541 (2013).
- State v. Hakimi, 98 P.3d 809 (Wash. Ct. App. 2004).
- Tips for requesters on Mechanical Turk. (2018, August 11). Retrieved from <http://turkrequesters.blogspot.com/>
- Victims of Child Abuse Act, 42 U.S.C. §3266 (1990).
- Wagging Trials. (2012, May 4). *The Sentinel*. Retrieved from <https://www.sentinelcolorado.com/news/wagging-trials/>
- Watson, D., & Clark, L. A. (1999). The PANAS-X: Manual for the Positive and Negative Affect Schedule-Expanded Form. Iowa City, IA: University of Iowa, Department of Psychology. Retrieved from <http://www.psychology.uiowa.edu/Faculty/Watson/Watson.html>
- Zacharias, F. C. (1999). Professional responsibility, therapeutic jurisprudence, and preventative law. *Psychology, Public Policy, and Law, 5*, 909–920.

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