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APPLIED PSYCHOLOGY | RESEARCH ARTICLE

The influence of defendant body size and defendant gender on mock juror decision-making

Susan Yamamoto[1], Evelyn M. Maeder[2]*, Annik Mossière[1] and Dylan Brown[2]

*Corresponding author:
Evelyn M. Maeder, Institute of
Criminology and Criminal Justice,
Carleton University, C566 Loeb
Building, 1125 Colonel By Drive,
Ottawa, ON K1S 5B6, Canada
E-mail: evelyn.maeder@carleton.ca

Reviewing editor:
Angelo Brandelli Costa, Pontificia
Universidade Catolica do Rio Grande
do Sul, Brazil

Additional information is available at
the end of the article

Abstract: **Objectives**: These studies were designed to extend the limited psycho-legal literature on weight bias in juror decision-making. **Methods**: In two studies, students (*N* = 208) and online community participants (*N* = 199) read a fabricated theft trial transcript in which we varied the defendant's weight (overweight, average weight, underweight) and gender (man, woman). Participants then made verdict decisions and completed a measure of positive attitudes toward obesity. **Results**: In Study 1, the overweight condition featured a fairly even verdict split, while the underweight and average weight conditions featured a higher proportion of guilty verdicts than not guilty verdicts. In Study 2, among those with more positive attitudes toward obesity, the average weight condition yielded a greater likelihood of a guilty verdict as compared to the underweight condition. Thus, Study 1 revealed relative leniency toward a defendant who was overweight, whereas Study 2 revealed more lenient decisions for a defendant who was underweight (as a function of attitudes). There were no significant gender effects. **Conclusions**: Findings are inconsistent with bias against obesity shown in the extant literature, which might be attributable to idiosyncrasies of the case material used. In general, results indicate that defendant weight is a source of bias among mock jurors. Future researchers examining weight bias in the courtroom should consider the potential effects of crime congruency by exploring defendant weight in different types of criminal cases.

ABOUT THE AUTHOR

Dr. Susan Yamamoto is an Adjunct Research Professor working with Dr. Evelyn M. Maeder, an Associate Professor in the Institute of Criminology and Criminal Justice. In the Legal Decision-Making Lab, Dr. Maeder and her students—including former students Dr. Annik Mossiere and Dylan Brown—examine a wide array of issues in both the US and Canadian legal systems, in particular discrimination in the law. The goal of this work is to help legal practitioners, scholars, and policymakers better understand the experiences of marginalized groups by drawing attention to extra-legal factors that can unduly influence decision-making.

PUBLIC INTEREST STATEMENT

People with obesity face an alarming level of discrimination in a variety of settings, potentially including the legal system. However, little research has been conducted on this issue. In two juror simulation studies, we created a fabricated trial (involving the theft of an expensive watch) to test whether a criminal defendant with obesity is more likely to be found guilty as compared to an average weight or overweight defendant. Results were mixed. In Study 1 (in which participants were Canadian University students), we found a pattern of leniency toward a defendant with obesity. In Study 2 (in which participants were online U.S. community members) we found leniency toward a defendant who was underweight as compared to average weight or overweight. It is important that more studies be conducted on weight bias and juror decision-making, especially together with other demographic variables such as gender and socioeconomic status.

Subjects: Criminological Psychology; Applied Social Psychology; Prejudice; Criminology & Delinquency

Keywords: weight; defendant gender; defendant weight; juror decision-making; obesity

Obesity is a growing health issue in North America, with prevalence markedly increasing over the past few decades (Lau et al., 2007). As Lau et al. (2007) asserted, obesity is caused by a complex combination of social, genetic, and environmental factors. Unfortunately, having obesity[1] (i.e., a body mass index of 30kg/m2 or higher, Lau et al., 2007; Mayo Clinic, 2017) is associated with harmful stereotypes such as ugly, stupid, lazy, and worthless (Puhl & Brownell, 2001; Puhl & Heuer, 2009). Moreover, Western conventions of attractiveness tend to associate beauty with thinner bodies, a standard to which women may be disproportionately pressured to conform (Fikkan & Rothblum, 2005; Puhl, Andreyeva, & Brownell, 2008; Smith, 2012). Persons with obesity experience a host of social consequences, including discrimination in salary and promotion opportunities, as well as in education and housing decisions (Puhl & Brownell, 2001). However, the socio-legal experience of persons with obesity is an under-examined topic (Schvey, Puhl, Levandoski, & Brownell, 2013). Physical characteristics of defendants in criminal trials, such as gender and attractiveness, have garnered much attention as sources of juror bias in a variety of cases (e.g. Abwender & Hough, 2001; Quas, Bottoms, Haegerich, & Nysse-Carris, 2002). Negative attitudes toward obesity might translate to divergent legal outcomes for persons of different weights, which violates the legal tenet of the right to a fair trial. The purpose of these studies was to investigate the joint influence of defendant weight and gender on mock juror decision-making.

1. Perceptions of obesity

Negatives stereotypes (i.e., traits perceived to be characteristic of certain groups, Fiske, 1998) about individuals with obesity are well-documented, resulting in pervasive prejudice and discrimination (Puhl & Heuer, 2009). Indeed, prejudice against persons with bigger bodies is culturally engrained. For instance, women who are thinner tend to be overrepresented on television (Barriga, Shapiro, & Jhaveri, 2009; White, Brown, & Ginsburg, 1999); even children's programs adhere to a cultural ideal of thinness (Herbozo, Tanleff-Dunn, Gokee-Larose, & Thompson, 2004). Findings suggest that health professionals too can exhibit significant pro-thin biases (Foster et al., 2003).

Researchers have demonstrated an association between weight and perceived physical attractiveness, although we acknowledge that this convention might be specific to a U.S. context (for a thorough review see Smith, 2012). Attractiveness holds a privileged position in society, which prescribes the idea that "what is beautiful is good" (Dion, Berscheid, & Walster, 1972). There is evidence that individuals perceived as attractive tend to be better liked, receive more rewards, and experience less negative interactions and fewer punishments than those perceived as unattractive (Langois et al., 2000). In a psycho-legal context, Mazzella and Feingold's (1994) meta-analysis demonstrated that mock jurors tend to find a defendant guilty more frequently when he/she is physically unattractive versus attractive. If weight bias is proximal to unattractiveness bias, as scholars suggest (Fikkan & Rothblum, 2005; Smith, 2012), then a defendant's weight might influence jurors' perceptions of blame and guilt. Notably, Smith (2012) argued that obesity compounds unattractiveness bias and includes beliefs about controllability. Smith (2012) asserted that some people view weight as controllable, and therefore those with obesity might be seen as lacking willpower. This could potentially translate to a criminal context, framing a defendant with obesity as more impulsive.

Many scholars have highlighted the intersectionality of weight-based discrimination, arguing that it encompasses other forms of marginalization (Fikkan & Rothblum, 2005; Saguy, 2012; Smith, 2012). There is consensus that gender is relevant to understanding perceptions of body shape/size (Fikkan & Rothblum, 2012, p. 575; Orbach, 1978; Saguy, 2012, p. 600). Researchers have shown that women self-report more appearance-based judgments as compared to men (Gillen & Lefkowitz, 2009). Puhl et al. (2008) found that women were two times more likely than men to

report weight-based discrimination. Findings also suggest that as targets of observation, women with obesity are treated more harshly relative to men with obesity (Jasper & Klassen, 1990b; Miller & Lundgren, 2010). It is therefore likely that gender can affect lay judgments of persons with obesity in a legal setting, specifically juror decision-making.

2. Juror decision-making
The courts tend to assume that jurors can consider case evidence free of bias. However, trials are cognitively demanding, which can result in jurors' use of mental shortcuts to simplify this complex task (Tversky & Kahneman, 1973, 1974). Although these shortcuts are effective in many circumstances, they can lead to systematic errors in reasoning (Evans, 1984; Tversky & Kahneman, 1974). When jurors form positive or negative stereotypes about a defendant, they might selectively attend to certain pieces of evidence (Erber & Fiske, 1984; Zarate & Smith, 1990), or make differential causal ascriptions about that person's behaviour (Jones & Harris, 1967). Juror decision-making researchers have highlighted several physical characteristics that can elicit such cognitive errors (Devine & Caughlin, 2014; Mazzella & Feingold, 1994; Schvey et al., 2013; Vrij & Firmin, 2001).

2.1. Gender bias
Findings are somewhat mixed with regards to the effect of gender on juror decision-making. Mazzella and Feingold's (1994) meta-analysis suggested that mock jurors treat men more harshly than women, which the authors speculated might be attributable to the overrepresentation of men among offenders. In contrast, Devine and Caughlin's (2014) more recent meta-analysis demonstrated only weak effects of gender. As jurors, women tend to be harsher in their decisions in comparison to men (ForsterLee, ForsterLee, Horowitz, & King, 2006), mainly for cases involving child abuse, sexual assault, or domestic abuse (e.g. Bagby, Parker, Rector, & Kalemba, 1994; Burke, Ames, Etherington, & Pietsch, 1990; Quas et al., 2002). However, these gender effects might differ for defendants with obesity.

2.2. Weight bias
The handful of studies that have investigated obesity bias in legal decision-making generally evince harsher decisions for trial parties who are overweight. For example, Reichart, Miller, Bornstein, and Shelton (2011) examined how reasons for surgery and patient weight might affect decisions in medical malpractice trials among community and student mock jurors. Results showed that community participants rated patients who were overweight as less responsible for their situation than patients of normal weight. Notably, students showed the opposite pattern (Reichart et al., 2011). Interestingly, Bellizzi and Hasty (1998) found that persons with obesity were assigned harsher disciplinary judgments for workplace misconduct than those without obesity, and that this effect was not moderated by target gender. This finding suggests that obesity might eliminate leniency for women in the context of disciplinary judgments (Fikkan & Rothblum, 2012). There is a substantial gap in the literature in terms of the joint influence of these variables on legal decisions.

To our knowledge, only one study to date (Schvey et al., 2013) has examined potential bias against a defendant with obesity as a function of gender. Schvey et al. (2013) explored the effects of gender and defendant weight on mock jurors' perceptions of guilt in a fraud case. Results revealed that men assigned higher perceived guilt ratings for a woman with obesity compared to a woman who was thin, with no such differences for participants who were women. It is important to note that the omission of an objective legal rating of guilt (guilty/not guilty) somewhat limits the ecological validity of the Schvey et al.'s (2013) findings. While these results suggest that defendants with obesity might not receive fair treatment, further work is needed to determine whether this pattern holds for other contexts.

3. Study 1
Given the documented perceived link between unattractiveness and obesity (Agerström & Rooth, 2011; Puhl & Brownell, 2001), it stands to reason that a defendant's weight can influence juror decision-making. Just as persons with obesity experience discrimination in hiring and job

promotion decisions, it is likely that there are socio-legal consequences, which might depend on gender (Bellizzi & Hasty, 1998; Fikkan & Rothblum, 2012; Schvey et al., 2013). In the current studies, jury eligible participants (citizens at least 18 years of age having no indictable offenses) read a fabricated trial transcript in which we varied the defendant's gender and weight (via photographs and a weight descriptor in the police officer's testimony).

Hypothesis 1: Main effect. Previous researchers have uncovered prejudice toward persons with obesity (Puhl & Heuer, 2009) and have shown that thinner bodies can be relatively more privileged (Barriga et al., 2009; Foster et al., 2003; White et al., 1999). We therefore expected a main effect of defendant weight, such that the defendant in the overweight condition would yield the greatest proportion of guilty verdicts, followed by the average weight, and finally the underweight condition.

Hypothesis 2: Interaction effect. We expected that defendant gender and obesity attitudes would moderate this effect (i.e., a defendant weight X defendant gender X attitudes toward obesity interaction). Research indicates that obesity bias might exert a stronger influence on women than on men with obesity (Jasper & Klassen, 1990b; Miller & Lundgren, 2010). We therefore predicted that the effect of defendant weight would be stronger for those with more negative attitudes toward obesity, in particular when the defendant was a woman.

3.1. Method

3.1.1. Participants
Initially, 299 Canadian jury eligible student participants (citizens at least 18 years of age having no indictable offence convictions) completed the study; however, a total of 91 failed the manipulation checks (i.e. incorrectly identified the defendant's weight category), and so they were not included in analyses. Remaining participants were 208 jury eligible men ($n = 106$, 51%) and women ($n = 102$, 49%) enrolled in a Canadian university, whose ages ranged from 18 to 37 years ($M = 20.3$, $SD = 3.2$). The majority of participants identified as White (59.6%), with 11.1% identifying as Black, 9.1% as Middle Eastern, 8.7% as Asian, 5.8% as Aboriginal Canadian, and 3.9% as another group. Participants were recruited through an electronic recruitment system and were assigned course credit as compensation for their participation. These studies received clearance from the university research ethics board.

3.2. Materials

3.2.1. Trial transcript
Participants read an 11-page fabricated trial transcript describing a theft over $5000 case in which a clerk alleged that the defendant stole a watch after trying it on in a jewellery store and fleeing; a police officer witnessed the suspect running from the store. The transcript included opening and closing statements from both the Crown and the Defence, as well as testimonies from the Crown witnesses (i.e., store clerk, police officer, eyewitness) and Defence witnesses (i.e., other store clerk, defendant), which were all followed by cross-examinations. The only physical evidence, the missing watch, was never located. Jury instructions were provided, including definitions of presumption of innocence, burden of proof (Canadian Judicial Council, 2004), and Criminal Code criteria for the charges. After reading the transcript, participants answered a questionnaire to assess their verdict decisions (i.e., guilty, not guilty) and their attention to the weight manipulation.

3.2.2. Manipulations
The gender and weight of the defendant were manipulated in the transcripts[2] by using a photograph of the defendant; Photoshop was used to alter the same photograph to portray an underweight, average, and overweight defendant for each gender. Statements in the transcript were also used to

manipulate gender (e.g. Brenda or Benjamin Smith) and the weight of the defendant (e.g., the police officer testifies that he witnessed an *overweight* male running north on 4th avenue).

3.2.3. Attitudes toward obesity

Participants also completed the Obesity Attitudes Scale (OAS) (Lattimore, 1998). The OAS is comprised of 28 items (e.g., I would rather not be alive than be fat; I find fat people to be grouchy; the obese are as intelligent as average weight people) that were rated on a 7-point scale (from 1 = *strongly disagree* to 7 = *strongly agree*), with higher scores indicating more positive views about obesity. The scale demonstrated strong internal consistency (α = .89). A mean score was computed for the scale. The full questionnaire also included random items from the Need for Cognition Scale (Cacioppo, Petty, & Kao, 1984) that served as fillers.

3.2.4. Procedure

Participants signed up for the study through the university's online system. The study was completed in the laboratory in groups of up to five participants. On arrival, they were randomly assigned to a condition and provided with the corresponding trial stimulus, the OAS, and a brief demographics survey. Notably, participants were unable to go back to previous pages. On completion, they were debriefed, thanked, and provided with course credit as compensation. Sessions lasted approximately 45 minutes.

3.3. Results

Although we had a gender balanced sample, including mock juror gender as a variable resulted in an underpowered test, and so results were unreliable. However, an independent samples t-test, t (206) = 3.57, $p < .001$, Cohen's d = −0.58, 95% CI [−0.69, −0.47], indicated that women had more positive attitudes toward obesity (M = 5.35, SD = 0.78) as compared to men (M = 4.90, SD = 0.78). This finding suggests that attitudes toward obesity might capture some juror gender effects. In general, attitudes towards obesity scores ranged from 1.92 to 6.83 and were predominantly positive in this sample (M = 5.15, SD = .80). Overall, there was a slightly higher proportion of guilty verdicts (59.1%, n = 123) than not guilty verdicts (40.9%, n = 85). Table 1 displays the verdict counts and percentages for each experimental condition.

We conducted hierarchical logistic regressions to test the effects of defendant gender, defendant weight, and attitudes toward obesity on dichotomous verdict decision. In the first block, we entered a dummy variable for each of the underweight and overweight conditions, as well as defendant gender (where *0 = woman* and *1 = man*), and attitudes toward obesity (where higher

Table 1. Study 1 (N = 208) verdict counts and percentages for each experimental condition		Verdict	
Defendant Weight	**Defendant Gender**	**Guilty**	**Not Guilty**
Underweight	Woman	67.6%	32.4%
		n = 23	n = 11
	Man	64.7%	35.3%
		n = 22	n = 12
Average	Woman	55.9%	44.1%
		n = 19	n = 15
	Man	72.2%	27.8%
		n = 26	n = 10
Overweight	Woman	45.7%	54.3%
		n = 16	n = 19
	Man	48.6%	51.4%
		n = 17	n = 18

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Table 2. Study 1 hierarchical logistic regression testing the effects of defendant gender, defendant weight, and attitudes toward obesity on dichotomous verdict decision				
Predictor	B	SE	Sig.	e^B
Step 1				
Defendant gender	0.22	0.29	.456	1.24
Underweight defendant	0.09	0.36	.812	1.09
Overweight defendant	−0.71*	0.35	.042	0.49
Attitudes toward obesity	−0.06	0.18	.742	0.94
Step 2				
Defendant gender X Underweight defendant	−1.00	0.74	.176	0.37
Defendant gender X Overweight defendant	−0.59	0.71	.406	0.56
Defendant gender X Attitudes toward obesity	−0.18	0.38	.629	0.83
Underweight defendant X Attitudes toward obesity	−0.38	0.52	.465	0.68
Overweight defendant X Attitudes toward obesity	0.10	0.44	.815	1.12
Step 3				
Overweight defendant X Attitudes toward obesity X Defendant gender	−0.63	0.90	.480	0.53
Underweight defendant X Attitudes toward obesity X Defendant gender	0.59	1.05	.575	1.80

Note: The average defendant and woman defendant conditions were the reference groups. Not guilty was coded as 0 and guilty was coded as 1. Higher attitudes toward obesity scores represent more positive attitudes toward obesity.
*p < .05

scores indicate more positive attitudes toward obesity). We entered all two-way and three-way interactions in blocks two and three respectively. Table 2 displays the results.

There was a significant main effect of defendant weight, such that the overweight condition yielded a lower likelihood of a guilty verdict (guilty: 47.1%, not guilty: 52.9%) as compared to the average weight condition (guilty: 64.3%, not guilty: 35.7%). There were no significant interaction effects. We ran a second regression analysis to compare the underweight and overweight conditions. This analysis revealed that the underweight defendant condition elicited a significantly higher likelihood of a guilty verdict (guilty: 66.2%, not guilty: 33.8%) compared to the overweight defendant condition. There were no significant interaction effects (see Table 3).

3.4. Study 1 discussion
Results suggested that defendant weight was associated with verdict decisions. In Hypothesis 1 we predicted a greater likelihood of a guilty verdict for a defendant who was overweight. Contrary to this prediction, whereas the overweight condition featured a fairly even verdict split, the other two conditions featured a higher proportion of guilty than not guilty verdicts. This finding suggests that participants were harsher in the average and underweight conditions. Contrary to Hypothesis 2, the effect of weight on verdict did not differ as a function of defendant gender or attitudes toward obesity. The finding that women had more positive attitudes toward obesity as compared to men supports work by Puhl et al. (2005), Graziano, Bruce, Sheese, and Tobin (2007), and Schvey et al. (2013).

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Table 3. Second hierarchical logistic regression analysis depicting comparisons between the underweight and overweight defendant conditions				
Predictor	B	SE	Sig.	e^B
Underweight defendant	0.79*	.35	.024	2.21
Defendant gender X underweight defendant	−0.41	.73	.570	0.66
Attitudes toward obesity X underweight defendant	−0.49	.48	.309	0.62
Attitudes toward obesity X underweight defendant X defendant gender	1.22	.98	.211	3.40

Note: The obese defendant and woman defendant conditions were the reference groups. Not guilty was coded as 0 and guilty was coded as 1. Higher attitudes toward obesity scores represent more positive attitudes toward obesity. Main effects and interactions were entered in different blocks; duplicate analyses are omitted from this table.
*$p < .05$

4. Study 2

Study 1 revealed a main effect of defendant weight, with leniency toward a defendant who was overweight among student participants. We wished to test whether this finding would replicate in a second study. Because there is a lack of consensus as to meaningful differences between community and student samples (Bornstein, 1999; Lieberman, Krauss, Heen, & Sakiyama, 2016; McCabe, Krauss, & Lieberman, 2010), we followed Diamond's (1997) recommendation that researchers rely on a two-step method in which they provide data from both groups. Study 2 featured the same predictions and method as Study 1 but used a community sample.

4.1. Method

4.1.1. Participants
The initial sample was 262 online U.S. jury eligible community participants (citizens at least 18 years of age having no felony convictions). However, of those, a total of 63 failed the manipulation check (i.e. incorrectly identified the defendant's weight category), and so they were not included in analyses. Remaining participants were 199 U.S. jury eligible men ($n = 96$, 48.2%) and women ($n = 103$, 51.8%), recruited via Amazon's Mechanical Turk, a crowdsourcing platform that connects researchers to participants for monetary compensation. Ages ranged from 18 to 72 years old ($M = 33.1$, $SD = 11.4$). Participants were predominantly White (77.9%), with 6.5% identifying as Asian, 6.5% as Black, 6.0% as Hispanic/Latino, 2% as American Indian, .5% as Middle Eastern, and .5% declined to specify.

4.1.2. Materials
The materials were the same as in Study 1, except that the case was adjusted to feature U.S. charges and legal instructions. The Obesity Attitudes Scale showed strong internal consistency in this sample ($\alpha = .93$). A single mean score was computed.

4.1.3. Procedure
Participants signed up for the study on Mechanical Turk and followed a link to the survey on Qualtrics. They first completed a brief juror eligibility questionnaire and were then randomly assigned to one of six conditions. After reading the transcript, participants provided a dichotomous verdict decision, answered the manipulation check, and completed the OAS. Lastly, they responded to a brief demographics survey. Participants were debriefed and provided with a completion code to receive compensation.

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Table 4. Study 2 (N = 199) verdict counts and percentages for each experimental condition			
		Verdict	
Defendant Weight	**Defendant Gender**	**Guilty**	**Not Guilty**
Underweight	Woman	54.5%	45.5%
		n = 18	n = 15
	Man	57.1%	42.9%
		n = 20	n = 15
Average	Woman	50.0%	50.0%
		n = 16	n = 16
	Man	50.0%	50.0%
		n = 16	n = 16
Overweight	Woman	53.1%	46.9%
		n = 18	n = 15
	Man	55.9%	44.1%
		n = 19	n = 15

4.2. Results

Attitudes towards obesity scores ranged from 1.32 to 7.00 and were somewhat positive in this sample (*M* = 5.08, *SD* = 1.08). An independent samples t-test, *t*(197) = 3.05, *p* = .003, *Cohen's d* = −0.44, 95% CI [−0.58, −0.29], indicated that women had more positive attitudes toward obesity (*M* = 5.30, *SD* = 1.12) as compared to men (*M* = 4.84, *SD* = 1.00). Verdict decisions were fairly evenly split, with 46.2% guilty verdicts (*n* = 92) and 53.8% not guilty verdicts (*n* = 107). Table 4 displays the verdict counts and percentages for each condition.

As with Study 1, we conducted hierarchical logistic regressions to test the effects of defendant gender, defendant weight, and attitudes toward obesity on dichotomous verdict decision. In the first block, we entered a dummy variable for each of the underweight and overweight conditions, as well as defendant gender (where *0 = woman* and *1 = man*), and attitudes toward obesity (where higher scores indicate more positive attitudes toward obesity). We entered all two-way and three-way interactions in blocks two and three respectively. Table 5 displays the results.

There was a significant main effect of attitudes toward obesity, such that more positive attitudes toward obesity were associated with a decreased likelihood of a guilty verdict. This was qualified by two significant interaction effects. There was a significant interaction between defendant gender and attitudes toward obesity. Specifically, when the defendant was a woman, more positive attitudes were associated with a decreased likelihood of a guilty verdict, *B* = −0.80, *SE* = 0.24, *p* = .001, *Exp(B)* = 0.45, but no such effect occurred when the defendant was a man, *B* = −0.18, *SE* = 0.18, *p* = .310, *Exp(B)* = 0.84.

There also was a significant interaction between the underweight condition and attitudes toward obesity. We examined differences between the two defendant weight conditions at the mean and plus/minus 1 standard deviation from the mean. There were no differences between the underweight and average weight conditions at low (*M* = 3.99, *p* = .232) and average (*M* = 5.08, *p* = .543) levels of positive attitudes toward obesity. However, among participants with more positive attitudes toward obesity (*M* = 6.16), the average weight condition yielded a greater likelihood of a guilty verdict as compared to the underweight condition, *B* = 1.09, *SE* = .54, *p* = .043, 95% CI [0.04, 2.15]. Looking at the interaction in another way, it seems that more positive attitudes toward obesity were associated with a decreased likelihood of a guilty verdict when the defendant was underweight, *B* = −0.81, *SE* = 0.27, *p* = .002, *Exp(B)* = 0.45. The effect of attitudes was nonsignificant for the average weight condition, *B* = −0.46,

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Table 5. Study 2 hierarchical logistic regression testing the effects of defendant gender, defendant weight, and attitudes toward obesity on dichotomous verdict decision

Predictor	B	SE	Sig.	e^B
Step 1				
Defendant gender	−0.12	0.29	.695	0.89
Underweight defendant	−0.22	0.36	.540	0.80
Overweight defendant	−0.19	0.36	.606	0.83
Attitudes toward obesity	−0.42*	0.14	.003	0.66
Step 2				
Defendant gender X Underweight defendant	−0.06	0.75	.936	0.94
Defendant gender X Overweight defendant	−0.24	0.73	.737	0.78
Defendant gender X Attitudes toward obesity	0.67*	0.31	.029	1.96
Underweight defendant X Attitudes toward obesity	−0.79*	0.35	.026	0.46
Overweight defendant X Attitudes toward obesity	−0.46	0.37	.207	0.63
Step 3				
Overweight defendant X Attitudes toward obesity X Defendant gender	0.37	0.76	.629	1.45
Underweight defendant X Attitudes toward obesity X Defendant gender	−0.13	0.72	.861	0.88

Note: The average defendant and woman defendant conditions were the reference groups. Not guilty was coded as 0 and guilty was coded as 1. Higher attitudes toward obesity scores represent more positive attitudes toward obesity.

*p < .05

Table 6. Second hierarchical logistic regression analysis depicting comparisons between the underweight and overweight defendant conditions

Predictor	B	SE	Sig.	e^B
Underweight defendant	−0.04	0.36	.921	0.97
Defendant gender X underweight defendant	0.18	0.75	.806	1.20
Attitudes toward obesity X underweight defendant	−0.03	0.38	.390	0.72
Attitudes toward obesity X underweight defendant X defendant gender	−0.49	0.81	.543	0.61

Note: The obese defendant and woman defendant conditions were the reference groups. Not guilty was coded as 0 and guilty was coded as 1. Higher attitudes toward obesity scores represent more positive attitudes toward obesity. Main effects and interactions were entered in different blocks; duplicate analyses are omitted from this table.

SE = 0.22, *p* = .837, *Exp(B)* = 0.96, and for the overweight condition, *B* = −0.46, *SE* = 0.27, *p* = .091, *Exp(B)* = 0.63. These findings indicate that participants were harsher toward a defendant of average weight as compared to a defendant who was underweight, dependent on attitudes toward obesity. Using the overweight condition as the reference group yielded non-significant effects (see Table 6).

4.3. Study 2 discussion
In sum, we observed effects of weight, gender, and attitudes toward obesity on verdict decisions. Contrary to Study 1, results revealed greater leniency toward an underweight defendant. This

effect only held at higher levels of positive attitudes toward obesity. Study 2 also showed that when the defendant was a woman, more positive attitudes toward obesity were associated with a decreased likelihood of a guilty verdict. Given that women had significantly more positive attitudes toward obesity, this effect might have picked up in-group leniency among women.

For the average weight defendant, verdicts were evenly split regardless of attitudes toward obesity. It is intuitively plausible that attitudes toward obesity would not be activated when judging a defendant of average weight. However, we expected that attitudes toward obesity would be associated with verdict decisions for a defendant who was overweight. Instead, it appears that this was only the case for the underweight condition. People with positive attitudes toward obesity showed leniency in the trial involving the underweight defendant, but the effect was not significant when the defendant was overweight.

5. General discussion

These studies were designed to extend the limited psycho-legal literature on weight bias in juror decision-making. We examined whether defendants of different weights would elicit significantly different verdict breakdowns, and whether defendant gender and attitudes toward obesity would moderate this effect. In two studies, student and community participants read a fabricated theft trial transcript, made verdict decisions, and completed a measure of positive attitudes toward obesity. We expected a greater proportion of guilty verdicts for the defendant who was overweight compared to average or underweight, but that the effect would be stronger when the defendant was a woman and among those with more negative attitudes toward obesity. Results did not support these hypotheses. In Study 1, the overweight condition featured a fairly even verdict split, while the other two conditions featured a higher proportion of guilty verdicts than not guilty verdicts. In Study 2, among those with more positive attitudes toward obesity, the average weight condition yielded a greater likelihood of a guilty verdict as compared to the underweight condition. Thus, Study 1 revealed harsher decisions for defendants who were underweight and average weight, whereas Study 2 revealed more lenient decisions for a defendant who was underweight (as a function of attitudes).

These findings are inconsistent with negative views of obesity shown in the extant literature (Puhl & Heuer, 2009; Schvey et al., 2013; Smith, 2012). A potential explanation for the results in Study 1 may be related to idiosyncrasies of the case material used. The theft involved the suspect successfully fleeing the scene. It is possible that participants thought it less likely that a defendant who was overweight could physically flee the scene as easily as an average or underweight defendant. In contrast, Schvey et al. (2013) used a fraud case. Fraud is a more sedentary crime, and so bias against obesity in this case may have tapped into the believability of the crime, suggesting a potential crime congruency effect. In Study 2, perhaps the association between obesity attitudes and verdict decisions altered this effect. The idea of crime congruency is typically discussed in cases involving racial bias, whereby bias is increased in stereotype-based crime-congruent cases (e.g. Black defendant charged with auto-theft, or a White defendant charged with embezzlement, Jones & Kaplan, 2003). In other words, if the type of crime matches stereotypes associated with a certain group, then this consistency influences perceptions of guilt. When considering weight bias, it is plausible that an overweight defendant charged with a sedentary crime like fraud is viewed as more weight-crime congruent than a physically active crime like theft. However, this idea requires additional research in which specific stereotypes are measured. Researchers might also consider including other variables such as race or socioeconomic status.

Studies 1 and 2 resulted in a high number of manipulation check failures. These rates might indicate that there was a selection bias. It is possible that those who answered the question correctly attended more closely to the defendant's weight, which could account for the unexpected pattern of findings. A measure of social desirability would help to address such concerns.

5.1. Limitations

The reader should interpret findings with caution due to a handful of significant limitations. First, Studies 1 and 2 relied on samples from two countries (Canadian students and U.S. online participants,

respectively) that have a nearly 10% difference in obesity prevalence (Shields, Carroll, & Ogden, 2011). Therefore, it is possible that the U.S. sample showed less leniency for the defendant with obesity because it is perceived as a greater cultural problem. Moreover, we cannot discern whether the divergent results were owing to differences between two cultures, between students and community members, or both. Psycho-legal researchers have long debated the potential differences between student and community participants (Bornstein, 1999; Lieberman et al., 2016; McCabe et al., 2010). For instance, McCabe et al. (2010) provided evidence that students have a more rational processing style compared to non-students. Because students are generally able to get out of jury duty owing to undue hardship, many argue that non-student samples are a better approximation of real juror decision-making. In terms of possible international differences, the U.S. and Canada have considerable cultural overlap, being in such close proximity and exposed to similar media. Obesity is a rising global issue (Lau et al., 2007), and there is no evidence of which we are aware that weight bias is significantly different between the two countries. Indeed, the two samples showed similar mean attitude scores. However, without comparison groups, we cannot say definitively whether these differences drove results.

Relatedly, community participants were recruited via Mechanical Turk. Some researchers have shown that MTurk workers have distinct demographics compared to more traditional samples. For instance, Paolacci, Chandler, and Ipierotis (2010) reported that MTurk participants have below average salaries. In the current study, the community sample was older on average compared to the student sample. Such demographic differences could have contributed to the different pattern of results between Studies 1 and 2. For instance, it could be that younger participants have more exposure to body positivity movements, which could have promoted greater leniency toward the defendant with obesity. Some have also expressed concerns that MTurk produces lower quality data, with participants having divided attention and potentially being non-naïve to experiment purposes and procedures (Chandler, Mueller, & Paolacci, 2014). However, recent work by Maeder, Yamamoto, and McManus (2017) suggests that MTurk samples are comparable in quality to student and in-lab samples in the context of a juror decision-making study.

Finally, these were studies of individual juror decisions absent deliberation components, and so we cannot say how group dynamics might influence results. However, individual juror studies are an important precursor to deliberation studies, given that they afford a clear picture of how individual characteristics relate to initial perceptions of a case. Moreover, Lieberman et al.'s (2016) survey of psycho-legal researchers showed that a written trial stimulus with legal instructions and a community sample is considered an acceptable standard for jury studies.

6. Conclusion

Juror bias exists and is influenced by a myriad of factors. Identifying factors that lead to impartial juries and decisions is an important task for researchers in psychology and law. As a visually identifying and physical characteristic, defendant weight is one such source of bias. While the literature suggests that jurors would be harsher towards a defendant who is overweight, findings of the current study do not support this idea. Considering conflicting findings in the only two studies examining defendant weight on jurors' decisions in a mock criminal trial, further research is required to understand the effects this characteristic could have on legal outcomes. Although the practical significance of these studies is limited by these mixed findings, we hope that they will stimulate more research into weight bias in a legal setting, especially from an intersectional lens. Future researchers examining weight bias in the courtroom should also consider the potential effects of crime congruency by exploring defendant weight in different types of criminal cases.

Notes
1. We recognize that body mass index and weight can result in a variety of body shapes and sizes. In the current studies, in addition to a weight descriptor in witness testimony, we manipulated defendant body

size in photographs. We retained terms used in original works given the many ways that this variable can be conceptualized.

2. The transcript had been previously pilot-tested and revealed no floor or ceiling effects in terms of verdict.

Author details
Susan Yamamoto[1]
E-mail: susan.yamamoto@carleton.ca
Evelyn M. Maeder[2]
E-mail: evelyn.maeder@carleton.ca
Annik Mossière[1]
E-mail: annikmossiere@cmail.carleton.ca
Dylan Brown[2]
E-mail: dylanbrown@cmail.carleton.ca
[1] Department of Psychology, Carleton University, Ottawa, Canada.
[2] Institute of Criminology and Criminal Justice, Carleton University, Ottawa, Canada.

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