Emotions, Crime Seriousness, and Alibi Believability

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In the current study the impact of victim age, crime seriousness, and social influence on perceptions of alibi believability, victim responsibility, confidence, and emotions was examined. Participants ($N = 141$) read a brief crime-scenario vignette and a summary of the suspect's alibi, followed by a series of closed-ended questions. The alibi was held constant across all conditions. Eighty percent of participants rated the suspect's alibi as moderately believable or less than moderately believable. A significant interaction of Victim Age $\times$ Crime Seriousness on perceptions of alibi believability was found. Additionally, those individuals who reported greater feelings of certain negative emotions tended to rate the crime as being more serious and the suspect's alibi as less believable. Furthermore, participants' self-reported feelings of sadness, pleasure, and fear could significantly predict participants' alibi believability ratings. These results offer additional support for the legal relevance of emotions, particularly with respect to alibi assessment.

Keywords: alibi believability; crime seriousness; emotions; victim characteristics.

As a result of the inherently unpleasant nature of criminal trials, juror decision-making is often an emotionally charged process. Despite the historical presumption of juror impartiality – e.g., *R v Spence* (2005), – the observation that emotions can influence juror decision-making has been widely documented (e.g., Semmler, Brewer, Tomkins, & Small, 2002; Wevodau, Cramer, Clark, & Kehn, 2014). Furthermore, it has been theorized that when jurors ignore the law and rely on their emotions, resulting judgments become chaotic (Horowitz, Kerr, Park, & Gockel, 2006). If we are to reduce the risks that follow from this sort of emotionally informed decision-making, it is necessary to develop a more detailed understanding of the

fundamental legal relevance of emotions. At present, the link between emotions and perceptions of crime seriousness as a function of victim characteristics (e.g., victim age) is poorly understood. Thus, one aim of the present study was to assess the relationships between evaluator emotion and perceptions of crime seriousness, victim responsibility, and alibi believability. The present study is one of the first to account for the role of evaluator emotions in the context of alibi assessment. Therefore, a second aim of the study was to investigate the impact of the aforementioned variables on perceptions of alibi believability.

An alibi is a legal defence used by an accused person in which he/she pleads not

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guilty on the basis of having been somewhere else at the time a crime was committed. A retrospective analysis has revealed that 'weak alibis' have often been used as incriminating evidence against defendants, which has sometimes led to wrongful convictions (Wells et al., 1998). Disconcertingly, alibi statements are commonly met with suspicion by jurors (Olson & Wells, 2004) and are demonstrably falsifiable due to the fact that they are often misremembered (e.g., Culhane & Hosch, 2004). Thus, it is crucial to understand and to account for those factors that have an impact on the alibi-evaluation process. While an array of factors have already been identified as having an impact on the perceived believability of alibis (e.g., defendants' prior convictions) (Allison & Brimacombe, 2010), there is currently a lack of research dedicated to the investigation of the impact of victim characteristics on perceptions of alibi believability. The potential influence of victim age, crime seriousness, and the emotional response elicited when reading about the victim's experience on the perceived believability of a suspect's alibi, for example, should be considered.

Emotions and Crime Seriousness

Past research strongly supports the assertion that emotions can impact juror decision-making (e.g., Georges, Wiener, & Keller, 2013; Semmler et al., 2002). A great deal of existing literature regarding emotions and juror decision-making has focused on the effects of victim impact statements and emotional evidence (e.g., Boppre & Miller, 2014; Matsuo & Itoh, 2016; Wevodau et al., 2014) as well as on the impact of the demeanour of defendants, witnesses, and victims (e.g., Golding, Fryman, Marsil, & Yozwiak, 2003; Pryor & Buchanan, 1984). A number of studies have also examined mock jurors' emotional responses to gruesome evidence (e.g., Bright & Goodman-Delahunty, 2004; Bright & Goodman-Delahunty, 2006; Douglas, Lyon,

& Ogloff, 1997). Generally, these studies suggest that negative juror affect and higher conviction rates are associated with more gruesome evidence. However, it is unclear whether these reactions comport with a broad-based perception of crime seriousness or merely emerge as a visceral reaction to the gruesomeness of the evidence itself. Thus, research is yet to elucidate fully how evaluator emotions, as they pertain to the victim's experience, can impact perceptions of crime. In fact, it may be the case that the severity of the crime can influence the affective states of jurors. For example, Gold, Landerman, and Bullock (1977) found that a seemingly sympathetic reaction pattern among evaluators reduced victim blame when the degree of the victim's suffering was perceived as being more serious. Similar findings were reported by Bornstein (1998).

It is well understood that crime seriousness has an impact on juror perceptions (e.g., McGraw, & Foley, 2000; Wuensch, Chia, Castellow, & Cheng, 1993) and is one of the primary determinants of public perceptions of corresponding criminal punishments (Blumstein & Cohen, 1980). In general, people tend to assign *relatively* harsher penalties to the perpetrators of crimes that are perceived as being more serious (e.g., Einat & Herzog, 2011). Various demographic variables, including age, are intimately linked with perceptions of crime seriousness (Kwan, Chiu, Ip, & Kwan, 2002). Thus, the age of victims (as well as of offenders) can impact juror attitudes, particularly along the dimension of punitiveness (e.g., Bensimon & Bodner, 2012). More specifically, Bensimon and Bodner (2012) found that young adults tend to be more punitive towards the perpetrator of a crime when the victim is older as compared to when the victim is younger. It seems plausible then that variables such as victim age and perceptions of crime seriousness might relate to juror emotions and perceptions of alibi believability.

Alibi Believability

At present, there is a modest but growing body of literature on juror perceptions of alibi believability. Past research along these lines has been consistent with the taxonomy of alibi strength originally formulated by Olson and Wells (2004). This taxonomy was developed in order to score the quality of alibi statements according to their *relative* believability (Olson & Wells, 2004). Accordingly, people are less likely to render guilty verdicts when there is strong supporting evidence accompanying the alibi than when such evidence is lacking (e.g., Allison & Brimacombe, 2010; Culhane & Hosch, 2004; Pozzulo, Pettalia, Dempsey, & Gooden, 2015). Perceptions of alibi believability are influenced more by accompanying physical evidence (e.g., a time-stamped receipt) than by accompanying witness evidence (Olson & Wells, 2004). In reality, though, when defendants present supporting evidence for their alibis, witness evidence is presented far more frequently than physical evidence (e.g., Culhane, Hosch, & Kehn, 2008). For instance, Nieuwkamp and colleagues (2017) found that only about 7% of people report having video-recordings to support their alibis. Moreover, when witness evidence is presented, defendants tend to rely on ‘motivated’ witnesses (e.g., friends and relatives) more than ‘nonmotivated’ witnesses (e.g., strangers) (Culhane et al., 2008). Nonmotivated alibi witnesses are perceived as more believable due to the fact that they are potentially less motivated to lie for the defendant (Olson & Wells, 2004). Thus, the type of alibi witnesses that are typically called upon by the defence will often still result in a relatively low level of alibi believability according to the Olson and Wells taxonomy (2004).

In addition to physical evidence and witness evidence, the perceived believability of an alibi is influenced by a number of other factors. For example, Allison and Brimacombe (2010) found that people were less

likely to believe the alibis of defendants with prior convictions. Furthermore, Sargent and Bradfield (2004) found that among white evaluators, black defendants could elicit greater sensitivity to alibi strength than white defendants. Maeder and Dempsey (2013) found that defendants who were perceived as more feminine were also viewed as being more credible, more likeable, and less guilty. Also, defendants who provide more salacious alibis are perceived as less likely to be guilty, and more honest and believable than those defendants who provide non-salacious alibis (Allison, Mathews, & Michael, 2012). Recognition of the attention that has been devoted to defendant characteristics in past research provided the impetus for the present investigation of perceptions of alibi believability primarily as a function of victim characteristics (i.e., victim age and the severity of their experience).

People tend to overestimate their ability to generate strong and consistent alibis (Olson & Charman, 2012). Despite this dominant perception, innocent people typically experience a great deal of difficulty when asked to generate an alibi (e.g., Olson & Wells, 2012). People generally have poor memory for ordinary, day-to-day events (Brewer, 1988). And so, given that innocent people struggle to generate alibis, a weak and/or false alibi should not necessarily be interpreted as an indication of guilt (Strange, Dysart, & Loftus, 2014). Predominantly, research has indicated a troubling lack of exculpatory weight assigned to defendants’ alibi statements. Many real-world cases of wrongful convictions help to further demonstrate the need for a clearer understanding of those factors that affect perceptions of alibi believability. Consider, for example, the case of Steven Avery, who was wrongfully convicted of sexual assault despite having 16 alibi witnesses to support his whereabouts, ultimately serving more than 18 years in prison (Findley & Scott, 2006).

Hitherto, the emotional response towards victims of crimes has never been explicitly observed in the context of alibi assessment. Olson and Wells (2012), for example, looked at whether or not the emotional experience of generating an alibi had an impact on subsequent perceptions of alibi believability. By expanding upon this line of inquiry, we aimed to determine the impact of emotional arousal (when reading about the victim's experience) on perceptions of alibi believability.

Current Study

The current study was carried out online with the aim of determining the impact of victim age, crime seriousness, and emotions on perceptions of alibi believability as well as the relationship between crime seriousness and evaluator emotions. The crime-scenario vignette used in the current study depicted a woman of varying age as the victim of a crime of varying severity. The suspect in the current study relied on one motivated alibi witness (a girlfriend) as opposed to physical evidence because, in reality, physical evidence is rarely presented in order to support an alibi (e.g., Culhane et al., 2008). The suspect's alibi was held constant across all conditions, as was the physical description of the suspect. Thus, all participants were presented with the same alibi statement. Once participants rated the believability of the alibi as well as their level of confidence in their ability to make such a decision, one of two statements was presented to the participant, informing him/her of the way in which other study participants had allegedly assessed the alibi. This was done in order to determine the effect of social influence on alibi evaluation.

Informed primarily by broad-based findings of juror perceptions of sentencing and victim distress (e.g., Bright & Goodman-Delahunty, 2011; Einat & Herzog, 2011), it was hypothesized that participants would be less likely to believe the alibi of an individual suspected of a crime of greater seriousness and that a crime of greater seriousness would

be associated with increased negative affect. It was also hypothesized that participants who reported more negative emotions when reading about the victim's experience would be less likely to believe the suspect's alibi and would attribute less responsibility to the victim, as it has been found that participants assign less responsibility to the victim under similar circumstances (e.g., Gold et al., 1977). To reiterate, Bensimon and Bodner (2012) found that young adults are more punitive towards transgressors when the victims are of older age. As a result of this heightened sense of punitiveness, it may be the case that young adults will be less likely to believe the alibi of someone who has been suspected of committing a crime against a senior. Thus, it was additionally hypothesized that participants would be less likely to believe the suspect's alibi when the victim was older than when the victim was younger. The effects of social influence statements were additionally examined so as to explicate the relevance of social pressures within the domain of alibi assessment.

Method

Participants

A total of 141 adults completed the study online via SurveyMonkey. Study participants consisted of 37 men, 100 women, and 4 individuals who did not indicate gender ($M_{age} = 23.69$, $SD = 7.43$); 90% of participants were Caucasian. The majority of participants had received at least a high-school level education, with 58% having also received post-secondary education. The study was advertised online through various forms of social media (e.g., Facebook).

Materials

Vignettes

Four crime-scenario vignettes were used in the study. Victim age and crime seriousness were manipulated across conditions. The

victim's gender (female) was held constant across all conditions. Two of the vignettes depicted a 25-year-old victim and two depicted a 70-year-old victim. Half of the vignettes described a mugging, and the other half described a mugging and assault. Across all conditions, the physical description of the male suspect remained the same.

Alibi Statement Summary

Participants were presented with a brief summary of the suspect's alibi. It was stated that the suspect's girlfriend corroborated his whereabouts. The statement made no mention of any physical evidence. Thus, according to the Olson and Wells (2004) taxonomy, the alibi in the study is considered to be relatively weak. The alibi was held constant across all conditions.

Social Influence Statements

Participants were presented with brief statements intended to influence confidence levels as well as perceptions of alibi believability upon reassessment. Each participant was randomly informed that the majority of other study participants rated the alibi as either: believable or not believable.

Survey

The survey used in the study consisted of a series of closed-ended questions scored on Likert-type scales. Participants were asked to rate the extent to which they felt each of nine different emotions (e.g., sad, pleased, troubled) when 'reading about the woman's experience' (the victim's experience) on a scale ranging from 1 (*not at all*) to 5 (*very much so*). Participants were also asked to rate the seriousness of the crime (described in the vignette) on a scale ranging from 1 (*not at all serious*) to 5 (*extremely serious*).

Participants were asked to rate the believability of the suspect's alibi on a scale ranging from 1 (*not at all believable*) to 5

(*extremely believable*). Participants were also asked to rate their confidence in their ability to assess the believability of the alibi on a scale ranging from 1 (*not at all confident*) to 5 (*extremely confident*). The level of responsibility that participants attributed to the victim was assessed using a scale ranging from 1 (*not at all responsible*) to 4 (*completely responsible*). Finally, demographic information was obtained.

Procedure

The study was carried out online via Survey-Monkey and consisted of a brief crime-scenario vignette followed by a series of closed-ended questions. Each participant was presented at random with one of four possible crime-scenario vignettes: a robbery of a young woman, a robbery of an elderly woman, a robbery and assault of a young woman, or a robbery and assault of an elderly woman. The four scenarios differed based on crime seriousness (i.e., robbery vs. robbery and assault) and the age of the victim (young woman, 25 years old vs. elderly woman, 70 years old).

Immediately following the crime-scenario vignette, each participant rated his/her emotional response to the victim's experience and rated the seriousness of the crime. Next, each participant was presented with a summary of the suspect's alibi statement. As was previously stated, the alibi was held constant across all conditions and contained one alibi corroborator (the suspect's girlfriend). Participants were then asked to rate the believability of the suspect's alibi and to rate their confidence in their ability to assess the believability of the alibi. Additionally, perceptions of victim responsibility were assessed. Each participant was then randomly presented with one of two social-influence statements: one designed to promote confidence, one designed to decrease confidence. Lastly, each participant's believability ratings and level of confidence in his/her ability to assess the suspect's alibi were reassessed.

Results

Following a manipulation check of crime seriousness, analyses were performed to determine the impact of various independent variables on participants' emotions. Pearson correlations and multiple regression analyses were also performed on participants' emotional ratings. Next, participants' ratings of alibi believability and confidence were analysed in order to uncover any between-group effects.

Manipulation Check

A 2 (participant gender) $\times$ 2 (victim age) $\times$ 2 (crime seriousness) between-subjects analysis of variance (ANOVA) was conducted to analyse differences in participants' ratings of crime seriousness. It was found that participants rated the more serious crime (mugging and assault) as significantly more serious ($M = 3.76$, $SD = .67$) than the less serious crime (mugging without assault) ($M = 3.28$, $SD = .75$), $F(1, 129) = 12.91$, $p < .001$, $\eta_p^2 = .09$, 95% CI [0.22, 0.75]. Therefore, the manipulation of crime seriousness was successful.

Emotions

Participants were asked to rate the extent to which they felt each of nine different emotions on a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*very much so*). Participants' ratings of six different negative emotions (disgusted, frightened, worried, troubled, sad, and angry) were grouped together to compute a measure of 'negative affect'. Ratings of 1 and 2 on each of the six negative emotions were summed to define low negative affect, while ratings of 4 and 5 were summed to define high negative affect. Moderate ratings (i.e., ratings of 3) were omitted for this calculation. A 2 (victim age) $\times$ 2 (crime seriousness) $\times$ 2 (participant gender) between-subjects ANOVA was conducted to analyse differences in participants' ratings of negative affect. It was found that

when reading about the victim's experience, females ($M = 3.59$, $SD = 2.02$) reported significantly greater negative affect than did males ($M = 2.71$, $SD = 1.93$), $F(1, 129) = 5.12$, $p = .025$, $\eta_p^2 = .04$, 95% CI [0.11, 1.65].

A series of Pearson correlations were conducted in order to determine the relationship between participants' emotions and perceptions of crime seriousness, alibi believability, victim responsibility, and confidence. Overall, it was found that negative affect was positively correlated with ratings of crime seriousness ($r = .41$, $p < .001$). This was the case for both the young victim condition ($r = .50$, $p < .001$) and the senior victim condition ($r = .35$, $p = .002$). Thus, regardless of the age of the victim, participants who reported greater negative affect when reading about the victim's experience also rated the crime as being more serious.

More specifically, regardless of whether data was looked at overall or separately for the younger and senior victims, crime seriousness was positively correlated with the extent to which participants' reported feeling worried (overall $r = .39$, $p < .001$; young victim $r = .49$, $p < .001$; senior victim $r = .32$, $p = .006$), troubled (overall $r = .36$, $p < .001$; young victim $r = .40$, $p = .001$; senior victim $r = .31$, $p = .006$), disgusted (overall $r = .42$, $p < .001$; young victim $r = .42$, $p < .001$; senior victim $r = .41$, $p < .001$), frightened (overall $r = .33$, $p < .001$; young victim $r = .36$, $p = .003$; senior victim $r = .34$, $p = .003$), sorry (overall $r = .33$, $p < .001$; young victim $r = .26$, $p = .040$; senior victim $r = .38$, $p = .001$), sad (overall $r = .45$, $p < .001$; young victim $r = .46$, $p < .001$; senior victim $r = .42$, $p < .001$), and angry (overall $r = .36$, $p < .001$; young victim $r = .44$, $p < .001$; senior victim $r = .32$, $p = .006$). Thus, the more worried, troubled, disgusted, frightened, sorry, sad, and angry participants reported feeling, the more serious they rated the crime, regardless of the age of the victim. Ratings of crime seriousness were also negatively correlated with the extent to which participants reported feeling happy, both overall

($r = -.20, p = .018$) and within the young victim condition ($r = -.25, p = .042$). Thus, as reported feelings of happiness increased, ratings of crime seriousness decreased. Also, within the young victim condition, crime seriousness was negatively correlated with the extent to which participants reported feeling pleased ($r = -.33, p = .008$). When the victim was a young person, the less pleased participants reported feeling, the more serious they thought the crime was.

Both overall and within the senior victim condition, participants' ratings of alibi believability were found to be negatively correlated with the extent to which participants reported feeling worried (overall $r = -.17, p = .041$; senior victim $r = -.23, p < .045$) and frightened (overall $r = -.24, p = .005$; senior victim $r = -.27, p < .019$). Thus, overall and within the senior victim condition, the more worried and frightened participants reported feeling, the less believable they found the suspect's alibi. Also, within the senior victim condition, alibi believability ratings were found to be negatively correlated with the extent to which participants reported feeling sorry ($r = -.32, p = .006$). When the victim was a senior, the more sorry participants reported feeling, the less believable they thought the alibi was.

Overall, participants' ratings of victim responsibility were found to be negatively correlated with the extent to which participants reported feeling happy ($r = .33, p < .001$). The less happy participants reported feeling, the less responsibility they attributed to the victim.

It was also found that within the young victim condition, ratings of victim responsibility were positively correlated with the extent to which participants reported feeling happy ($r = .46, p < .001$) and pleased ($r = .46, p < .001$). When the victim was a young person, the less happy and pleased participants reported feeling, the less responsibility they attributed to the victim.

Within the senior victim condition, it was also found that ratings of negative affect ($r =$

$.27, p = .019$), worry ($r = .27, p = .017$), happiness ($r = .29, p = .010$), and fear ($r = .32, p = .005$) were positively correlated with ratings of victim responsibility when the victim was a senior. As participants' ratings of negative affect, worry, happiness, and fear increased, ratings of victim responsibility also increased.

Within the young victim condition, confidence ratings were negatively correlated with negative affect ($r = -.26, p = .040$) and, more specifically, with the extent to which participants reported feeling troubled ($r = -.36, p = .003$). When the victim was a young person, the more negative affect and the more troubled they reported feeling, the less confident they were in their ability to assess the alibi.

As shown in Table 1, a stepwise multiple regression was conducted to determine whether or not participants' ratings of alibi believability could be predicted based on any combination of 9 different emotions (worried, troubled, happy, disgusted, frightened, sorry, pleased, sad, and angry). Three models emerged. The first model, which included participants' ratings of fear, was significant, $F(1, 136) = 8.43, p = .004, R^2 = .06$. Six percent of the variance in alibi believability ratings could be accounted for by participants' ratings of fear. The more fear participants experienced, the less believable they saw the alibi to be ($t = -2.90, p = .004$). The second model, which also included participants' ratings of pleasure, was significant, $F(2, 135) = 6.44, p = .002, R^2 = .09$. Nine percent of the variance in alibi believability ratings could be accounted for by participants' ratings of fear and pleasure. In addition to the effect of fear, higher ratings of pleasure were related to higher believability in the alibi ($t = 2.06, p = .041$). The third model, which also included participants' ratings of sadness, was significant, $F(134, 3) = 5.85, p = .001, R^2 = .12$. Twelve percent of the variance in alibi believability ratings could be accounted for by participants' ratings of fear, pleasure, and sadness. In addition to the effects of fear and

Table 1. The linear model of emotional predictors of overall alibi believability ratings.

	<i>b</i>	<i>SE B</i>	β	<i>p</i>
Step 1				
Constant	3.40 [3.06, 3.74]	0.17		<.001
Frightened	−0.15 [−0.26, −0.05]	0.05	−.24	.004
Step 2				
Constant	3.07 [2.61, 3.53]	0.23		<.001
Frightened	−0.16 [−0.26, −0.06]	0.05	−.25	.003
Pleased	0.32 [0.01, 0.63]	0.16	.17	.041
Step 3				
Constant	2.67 [2.08, 3.27]	0.30		<.001
Frightened	−0.22 [−0.33, −0.10]	0.06	−.35	<.001
Pleased	0.37 [0.06, 0.67]	0.16	.19	.020
Sad	0.15 [0.01, 0.29]	0.07	.19	.039

Note. $R^2 = .24$ for Step 1; $\Delta R^2 = .03$ for Step 2; $\Delta R^2 = .03$ for Step 3; 95% CI in brackets.

pleasure, higher ratings of sadness were associated with increased believability of the alibi ($t = 2.08, p = .039$).

As shown in Table 2, a similar multiple regression analysis was repeated in order to analyse the senior victim condition. One significant model emerged, which included participants' ratings of feeling 'sorry', $F(1, 72) = 8.04, p = .006, R^2 = .10$. Ten percent of the variance in alibi believability ratings within the senior victim condition could be accounted for by how sorry the participant reported feeling. The more participants reported feeling 'sorry', the less believable they believed the alibi to be ($t = -2.84, p = .006$). A similar regression analysis was performed for the young victim condition. No significant results were found.

An additional stepwise multiple regression was conducted to determine whether or

not participants' confidence ratings could be predicted based on any combination of 9 different emotions (worried, troubled, happy, disgusted, frightened, sorry, pleased, sad, and angry). No significant results were found. Similar regression analyses were performed for the young victim condition as well as for the senior victim condition. For the young victim condition, one significant model emerged (as shown in Table 3), which included participants ratings of feelings 'troubled', $F(1, 63) = 9.28, p = .003, R^2 = .13$. Thirteen percent of the variance in participants' confidence ratings could be accounted for by how troubled the participants reported feeling. The more participants reported feeling 'troubled', the less believable they saw the alibi to be ($t = -3.05, p = .003$). No significant results were found for the senior victim condition.

Table 2. The linear model of emotional predictors of alibi believability ratings for the senior victim condition.

	<i>b</i>	<i>SE B</i>	β	<i>p</i>
Step 1				
Constant	4.20 [3.35, 5.05]	0.43		<.001
Sorry	−0.28 [−0.48, −0.08]	0.10	−.32	.006

Note. $R^2 = .10$ for Step 1; 95% CI in brackets.

Table 3. The linear model of emotional predictors of confidence ratings for the young victim condition.

	<i>b</i>	<i>SE B</i>	β	<i>p</i>
Step 1				
Constant	3.62 [2.73, 4.51]	0.45		<.001
Troubled	-0.38 [-0.62, -0.13]	0.12	-.36	.003

Note. $R^2 = .13$ for Step 1; 95% CI in brackets.

Alibi Believability

Overall, 57% of participants rated the alibi as 'moderately believable' and 23% rated the alibi as less than 'moderately believable'. A 2 (participant gender) $\times$ 2 (victim age) $\times$ 2 (crime seriousness) between-subjects ANOVA was conducted with participants' ratings of alibi believability as the dependant variable. There was a significant Victim Age $\times$ Crime Seriousness interaction, $F(1, 129) = 5.98, p = .016, \eta_p^2 = .04$. Participants rated the suspect's alibi as more believable for a minor crime if the victim was older ($M = 3.33, SD = 0.74$) than if the victim was younger ($M = 2.73, SD = 0.94$). In contrast, participants rated the suspect's alibi as more believable for a more serious crime if the victim was younger ($M = 3.10, SD = 0.80$) than if the victim was older ($M = 2.91, SD = 0.79$).

Two 2 (participant gender) $\times$ 2 (crime seriousness) between-subjects ANOVAs were conducted to analyse differences in participants' ratings of alibi believability within the senior victim condition and within the young victim condition. The analysis indicated that when the victim was a senior, participants rated the alibi as significantly more believable when the alibi-provider was suspected of a mugging ($M = 3.15, SD = 0.76$) compared to a mugging and assault ($M = 2.91, SD = 0.78$), $F(1, 70) = 4.04, p = .048, \eta_p^2 = .06, 95\% \text{ CI } [0.003, 0.83]$. No significant results were found within the young victim condition.

A 2 (victim age) $\times$ 2 (crime seriousness) $\times$ 2 (social influence statement) $\times$ 2 (participant gender) between-subjects ANOVA was

conducted to analyse differences in the change in alibi believability ratings (i.e., the change in ratings from before the presentation of a social influence statement vs. after). A significant main effect of gender was found, $F(1, 121) = 5.45, p = .021, \eta_p^2 = .04, 95\% \text{ CI } [0.04, 0.51]$. Following the presentation of a social influence statement, males ($M = .39, SD = 0.58$) changed their ratings of the believability of the suspect's alibi to a significantly greater extent than did females ($M = .12, SD = 0.60$). If participants were informed that the majority of other study participants rated the suspect's alibi as not believable, participants' subsequent believability ratings ($M = .37, SD = 0.55$) changed significantly more than when they were told that the majority of other study participants believed the suspect's alibi ($M = .13, SD = 0.62$), $F(1, 121) = 4.16, p = .044, \eta_p^2 = .03, 95\% \text{ CI } [-0.47, -0.01]$.

Confidence Ratings

A 2 (victim age) $\times$ 2 (crime seriousness) $\times$ 2 (participant gender) between-subjects ANOVA was conducted to analyse differences in participants' confidence ratings. No significant results were found. A 2 (victim age) $\times$ 2 (crime seriousness) $\times$ 2 (social influence statement) $\times$ 2 (participant gender) between-subjects ANOVA was conducted to analyse differences in the change in participants' confidence ratings (i.e., the change in ratings from before the presentation of a social influence statement vs. after). There was a significant main effect of gender, $F(1, 121) = 6.02, p = .016, \eta_p^2 = .05, 95\% \text{ CI }$

$[-0.69, -0.07]$. Following the presentation of a social influence statement, females ($M = -0.40$, $SD = 0.91$) changed their confidence ratings in their ability to assess the believability of the suspect's alibi to a significantly greater extent than did males ($M = -0.16$, $SD = 0.47$).

Discussion

The purpose of the current study was to investigate the impact of manipulating victim age, crime seriousness, and social influence statements on participants' emotional responses and perceptions of crime seriousness, alibi believability, victim responsibility, and confidence. This study is one of the first to include emotions as a patently relevant variable in the context of alibi assessment.

Results indicated that those participants who reported greater negative affect when reading about the victim's experience also rated the crime as being more serious, but as reported feelings of happiness increased, ratings of crime seriousness decreased. As hypothesized, it was found that the more worried and frightened participants reported feeling, the less believable they found the suspect's alibi. Moreover, participants' ratings of alibi believability could be significantly predicted by their ratings of sadness, fear, and pleasure. Also, the less happy participants reported feeling, the less responsibility they attributed to the victim for what happened. Thus, to a certain extent, perceptions of crime seriousness, alibi believability, and victim responsibility can be emotionally mediated. Past research has also shown that perceptions of crime seriousness and attributions of blame can be mediated by emotional arousal (e.g., Bornstein, 1998). However, there has been a dearth of research on the impact of emotions on perceptions of alibi believability. In studying perceptions of alibi believability, the impact of evaluator emotions has been considered only insofar as they are experienced during the generation of an alibi (Olson & Wells, 2012). Alternatively, in

the current study, emotions were considered insofar as they were aroused when reading about the victim's experience. Overall, when reading about the victim's experience, females reported more negative emotions than did males. This effect might be explained by males' perceived similarity to the suspect (who was described as being a man) and females' perceived similarity to the victim (who was described as being a woman). However, to evaluate this speculative explanation, additional manipulations of victim- and suspect gender would be advised.

As anticipated, participants generally did not find the alibi to be a compelling piece of exonerating evidence, as 80% of participants rated the alibi as moderately believable or less than moderately believable. More specifically, it was hypothesized that participants would be less likely to believe the alibi of an individual suspected of committing a crime of greater severity. In partial support of this hypothesis, results indicated a significant interaction of Crime Seriousness $\times$ Victim Age. Participants rated the suspect's alibi as more believable for a minor crime if the victim was older than if the victim was younger. On the other hand, participants rated the suspect's alibi as more believable for a more serious crime if the victim was younger than if the victim was older. A possible explanation for this interaction could be that participants' belief in a just world was threatened to a greater extent when an in-group member (i.e., a person of similar age) suffered more severely, as compared to an out-group member who suffered less severely. Previous research along similar lines supports this reasoning (e.g., Correia, Vala, & Aguiar, 2007). Ultimately, in working to restore their belief in a just world, participants may have felt that the young victim's suffering was relatively more deserved. In turn, participants may have become more lenient towards the suspected transgressor, as evidenced by participants' greater willingness to believe the suspect's alibi under such conditions.

In addition to the above interaction, it was found that when the victim was a senior, participants rated the alibi as significantly less believable when the alibi-provider was suspected of committing a more serious crime. This is consistent with the hypothesis that young adults (participants) would be less likely to believe the alibi of someone who had been suspected of committing a crime against a senior. These lower ratings of alibi believability may extend from a heightened sense of punitiveness towards those who victimize older individuals, similar to that observed by Bensimon and Bodner (2012). However, because ratings of punitiveness were not directly measured in the current study, this explanation must be interpreted with caution. Further, the effect of crime seriousness within the senior victim condition was nominally significant ($p = .048$), and so it is important to bear in mind that a more robust effect may have emerged if there had been a greater disparity between the seriousness of the crimes across the two conditions. For example, comparing a victimless crime to a serious violent offense may have given rise to a more substantial effect of crime seriousness on perceived alibi believability.

Although no hypotheses were formulated regarding participants' change in alibi believability and confidence ratings, results indicated that following the presentation of a social influence statement, males changed their believability ratings significantly more than did females. However, females changed their confidence ratings significantly more than males. Future research should aim to elucidate why these socially mediated changes in confidence and alibi believability measures differ according to gender. Additionally, it was found that if participants were informed that the majority of other participants rated the suspect's alibi as not believable, participants' subsequent believability ratings changed significantly more than when they were told that the majority of other participants rated the suspect's alibi as believable. Again, those components of the alibi-

evaluation process that may be susceptible to social influence (e.g., to the influence of fellow jury members) warrants the attention of future research.

The current study had several limitations that must be taken into account. Most obviously, the emotional arousal that participants experienced during the study may not be representative of that which is experienced under more naturalistic circumstances. Participants were aware that the crimes described by the vignettes had not actually happened, they were never explicitly assigned the role of 'juror', they were never shown any graphic images or video footage, never questioned by another person, and the duration of their participation took no more than approximately 10 min. Under more realistic conditions it is likely that participants would have reported experiencing greater emotional arousal, particularly negative emotional arousal. Thus, the brief and relatively impersonal quality of participation in the present study may have led to an underestimation of the role of emotions in more authentic and consequential forensic contexts. In the future, more naturalistic paradigms must be developed in order to achieve a faithful assessment of the impact of emotions on the course of criminal cases.

The current study prompted participants to rate the extent to which they felt each of nine different emotions when reading about the woman's experience (the victim's experience). However, to establish a more comprehensive understanding of the potential effects of emotional arousal, similar measures should be gathered in the future regarding participants' emotions when reading about the suspect's experience, or the suspect's 'actions'. Obtaining self-reports of emotions that are related to the suspect (in addition to the victim) would have led to a clearer interpretation of the current results. Despite these limitations, when taken with a certain degree of caution, the current findings can help to inform legal professionals and to sharpen the focus on the proper direction of future research.

Conclusion

In the current study we were primarily concerned with determining the impact of manipulating victim age, crime seriousness, and social influence statements on participants' emotional responses and perceptions of crime seriousness, alibi believability, victim responsibility, and confidence. A significant interaction of Victim Age $\times$ Crime Seriousness was found and appears to be consistent with the just-world hypothesis. In general, those who reported greater arousal of certain negative emotions when reading about the victim's experience perceived the crime as being more serious and the suspect's alibi as being less believable. Various emotional predictors of perceptions of alibi believability were also uncovered. Most notably, participants' self-reported feelings of sadness, pleasure, and fear were found to be significant predictors of perceptions of alibi believability. In closing, the current study has provided evidence that perceptions of crime seriousness, alibi believability, and victim responsibility can be mediated by emotional arousal and has helped the issue of evaluator emotions enter into the burgeoning study of alibi believability.

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