

The Influence of Familiarity Recency and Eyewitness Age on Mock Jurors' Judgements

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Abstract

The majority of research examining factors that influence jurors where the sole evidence is eyewitness identification focuses on *stranger* identifications where the eyewitness has never encountered the perpetrator before. However, it also is important to understand how familiarity between the eyewitness and perpetrator may be influential as familiarity is prevalent in criminal cases. Therefore, the current study examined the influence of familiarity recency (i.e., how long ago the eyewitness knew the defendant as a former neighbor 1, 5, or 10 years ago) and age of the eyewitness (25-, 50-, or 75-years-old) on mock jurors' decision making. Mock jurors ($N = 326$) read a trial transcript involving a positive identification from an eyewitness. Neither familiarity recency nor eyewitness age influenced mock jurors' perceptions of the defendant or eyewitness, or verdict decisions. However, mock jurors' subjective ratings regarding the familiarity between the eyewitness and defendant were highly associated with mock jurors' perceptions and verdict decisions. Specifically, higher familiarity ratings were associated with more guilty verdicts, higher guilt ratings, more positive perceptions of the eyewitness, and more negative perceptions of the defendant. This is an important finding as it demonstrates that jurors' personal perceptions of familiarity are highly influential in familiar eyewitness cases.

Keywords: Familiarity; Eyewitness age; Elderly witness; Juror decision making

1. INTRODUCTION

An analysis of known wrongful conviction cases in the U.S. revealed that eyewitness misidentification was the most prevalent factor leading to the conviction of innocent persons (Connors et al., 1996). Yet, eyewitness identification is considered one of the most persuasive pieces of evidence presented to a juror (Brewer & Wells, 2011). Various factors involved in an eyewitness account can influence jurors' legal judgments (e.g., Bruer & Pozzulo, 2014; Pica et al., 2017; Lieberman, 2002; Maeder et al., 2017; Sheahan et al., 2018). One important factor may be the prior relationship, or *familiarity*, between the eyewitness and defendant. Many cases in which an eyewitness is of use to police during an investigation involve eyewitnesses who are previously familiar with the suspect (Flowe et al., 2011; Memon et al., 2011; Valentine et al., 2003). Therefore, it is important to examine how familiarity and various factors related to familiarity may influence jurors' perceptions of the credibility of the eyewitness, and thus their verdicts. Specifically, the current study was interested in examining how the recency of a familiar relationship would influence jurors' judgements.

In addition to looking at the influence of familiarity, the current study also was interested in examining how the age of an eyewitness may influence jurors' perceptions of the eyewitness, defendant, and ultimately the guilt of the defendant. Specifically, the current study was interested in looking at whether jurors would perceive elderly eyewitnesses as less credible, thus leading to greater beliefs in defendant guilt, than adult eyewitnesses. Past research looking at jurors' perceptions of elderly eyewitnesses has tended to focus on perceptions of credibility rather than verdict decisions (e.g., Brimacombe et al., 2003; Mueller-Johnson et al., 2007). In order to build upon past research, the current study was not only interested in jurors' perceptions of the eyewitness and defendant, but also was interested in examining how eyewitness age may affect

dichotomous guilt verdicts and continuous guilt ratings. In addition, few studies have examined whether there is a combined effect of familiarity and eyewitness age on mock jurors' decision making. Therefore, the purpose of the present study was to examine how *familiarity recency*, defined as the time delay since the familiar relationship existed, in conjunction with eyewitness age may influence jurors' decision making.

1.1. Familiarity Recency

Cases in which an eyewitness reports being familiar with a suspect are more likely to be prosecuted than stranger eyewitness cases (Flowe et al., 2011). Even so, the majority of research on eyewitness memory and juror decision making has tended to focus on eyewitnesses who are strangers with the suspect. Because familiar cases are prevalent and likely to be presented in front of jurors, it is important to examine how jurors view the testimony of a familiar witness and whether this factor impacts their verdict decisions. If jurors have more confidence in familiar identifications, this would likely lead to more confidence in the accuracy of the eyewitness and thus result in more guilty verdicts for the defendant.

The notion of person familiarity is currently not a well-defined concept (Mandler, 2008); as such, familiarity can be conceptualized and operationalized in various ways. For example, the magnitude of a familiar relationship can be described by the number of exposures (e.g., "I've seen him 10 times") or alternatively by the quality of the relationship (e.g., "he is my soccer coach"). In this way, more exposures or a higher quality relationship would be considered a more familiar relationship than fewer exposures or a lower quality relationship. Two known studies to date have looked at familiarity in terms of the number of exposures (Pozzulo et al., 2014; Sheahan et al., 2018). Pozzulo et al. (2014) conducted one of the first studies to examine the impact of eyewitness familiarity on jurors' decision making where familiarity was defined by the

eyewitness having seen the defendant zero, three, or six times prior to the crime. Familiarity in this context did not influence guilt verdicts, perceptions of the defendant, or perceptions of the eyewitness. More recently, Sheahan et al. (2018) also looked at familiarity in terms of number of exposures (0 vs. 8 exposures) and found that familiarity between an eyewitness and a suspect did influence guilt verdicts. Mock jurors were more likely to reach a guilty verdict and assign higher guilt ratings when the eyewitness was familiar with the defendant compared to when the eyewitness was a stranger with the defendant. However, familiarity did not influence jurors' perceptions of the eyewitness or defendant.

The quality of the relationship held between the eyewitness and defendant also has been examined. Pica et al. (2017) manipulated whether the defendant was the witness' former teacher (i.e., familiar relationship), lunch monitor (i.e., acquaintance relationship), or someone they had never seen before (i.e., stranger relationship). They found that familiarity did not affect dichotomous guilt verdicts, however, when looking at continuous guilt ratings, it was discovered that mock jurors were more likely to assign higher guilt ratings when the witness and defendant had a familiar relationship compared to when they had a stranger relationship.

In addition to describing the magnitude of familiarity held between an eyewitness and a defendant, the recency of the familiar relationship also can be described. A relationship can be described as current (e.g., "he is currently my mail man"), or it can be described in the past (e.g., "he was my mail man 5 years ago"). Thus, it is not the magnitude of the relationship that is necessarily relevant; it is the time in which the relationship existed that is important. Research on facial recognition and eyewitness identification has generally indicated that memory for a target face is negatively related to increasing time delays (e.g., Deffenbacher et al., 2008; Podd, 1990; Shepard et al., 1991). It is likely that laypersons are aware of the effect of increasing time on

memory, thus it may be reasonable to suggest that eyewitnesses who have had a more recent relationship with the defendant may be viewed as more credible and accurate when making an identification compared to an eyewitness with a less recent relationship.

Vallano et al. (2018) conducted the only known research that has looked at the influence of familiarity recency on mock jurors' legal judgements. In two different studies, the researchers examined the number of prior exposures (never before seen, seen once, seen many times) and the recency of the exposures (only Study 2) of the eyewitness to the defendant. No effects of familiarity were found in Study 1; however, in Study 2, mock jurors were more likely to assign higher guilt ratings and have more confidence in the accuracy of the eyewitness when the eyewitness was familiar with the perpetrator, but only when it was minimal prior exposure. Specifically, the guilt ratings and identification accuracy ratings increased from the 'never before seen' condition to the 'seen once' condition, then slightly decreased when moving to the 'seen many times' condition. However, there was no difference in guilt ratings between the two familiarity recency ('seen a few hours ago' vs. 'seen a few months ago') conditions. Thus, it seems recency was only beneficial in that it provided more context about the familiar relationships; the recency of the exposure did not influence mock jurors' guilt judgments.

In Vallano et al. (2018), recency of the exposure was not meant to be a familiarity manipulation on its own, instead, information on the recency of the exposure was simply used to provide more context about the familiarity manipulation. As a result, recency was only described in two relatively close time delays (i.e., 'seen a few hours ago' vs. 'seen a few months ago'). It is possible that the two levels of recency were not discrete enough for the manipulation to influence participants' legal judgments. Vallano and colleagues (2018) also note that the participants in their study may not have been convinced that prior familiarity actually existed between the

eyewitness and defendant. Participants' confidence ratings that the eyewitness had actually seen the perpetrator before the crime were around the midpoint. Therefore, it appears that the participants were skeptical about whether prior exposure actually occurred (Vallano et al., 2018). In the current study, in order to reduce the likelihood that participants may question the validity of the relationship, it was not only the eyewitness who confirmed the familiarity, but the defendant as well.

Although Vallano et al. (2018) provide a good starting point for the examination of familiarity recency, the main purpose of their study was not to assess recency as a familiarity concept on its own; therefore, the aim of the current study was to provide research looking specifically at familiarity recency as a separate component of familiarity. In the current study, the magnitude of familiarity was not manipulated (i.e., all eyewitness-defendant relationships were described as being prior neighbors); it was the recency of the familiar relationship that was the focus. The eyewitness reported that he and the defendant were prior neighbors 1, 5, or 10 years ago. In all conditions the eyewitness reported that he "knew [the defendant] before he moved", that he "would usually see him around the dog park", and he had "seen him around a few times." Therefore, this study was not focused on the magnitude of familiarity, but the recency of familiarity.

1.2. Eyewitness Age

Although there is extensive research examining how eyewitness age affects mock jurors' perceptions and legal judgments; this research tends to focus on comparisons between child witnesses and adult witnesses (e.g., Bruer & Pozzulo, 2014; Goodman et al., 1987; Pozzulo & Dempsey, 2009; Sheahan et al., 2018; Wright et al., 2010). There is very little research examining jurors' perceptions and verdicts when the eyewitness is an elderly person. For the

research that does exist, it seems the results are mixed as to whether elderly persons are perceived differently than adults in legal contexts (e.g., Brimacombe et al., 1997; Kwong See et al., 2001). Brimacombe et al. (1997) compared three groups of eyewitnesses: younger adults (ages 18 to 25 year), middle-aged adults (ages 30 to 44 years), and senior adults (ages 65 to 85 years) who watched a crime video and were later videotaped as they provided testimony regarding the criminal and the crime. Students then watched these eyewitness testimony videos and rated the credibility of the testimony. The seniors were rated as significantly less credible than the two groups of younger adults. In a follow up study, Brimacombe et al. (2003) compared young adults (ages 18 to 30 years) to a younger senior group (ages 59 to 74 years) and an older senior group (ages 75 to 88 years old). In contrast with the results from Brimacombe et al. (1997), all age groups were rated as equally credible. Results from these earlier studies, although ecologically valid, allow for confounding variables to have a significant effect. The testimonies provided in the previous studies are actual accounts from the individuals acting as eyewitnesses, thus there are large variances in the amount and types of details reported that are unrelated to the variable of interest (i.e., numerical age). Using a trial transcript in which all details besides the experimental variables are held constant allows for a more direct assessment of the influence of age on jurors' decision making.

In an early study, Ross et al. (1990) asked college students to watch a videotaped mock trial (Study 1) or read a written transcript (Study 2) in which evidence was presented from an 8-, 21-, or 74-year-old male eyewitness and were later asked to make judgments concerning the trial. Elderly witnesses were rated significantly more accurate, more truthful, more intelligent, and more trustworthy than the young adult witness. Because these findings were unexpected, in Experiment 3, mock jurors' stereotypes were tested directly by asking students to consider the

average 6-, 8-, 21-, and 74-year-old witness and rate them on various credibility characteristics. When stereotypes were tested directly, the participants' stereotypes were more negative towards the seniors compared to the young adults. The findings of these three experiments suggest that although explicit negative stereotyping exists concerning elderly eyewitnesses, these stereotypes may not have an effect when imparting the role of a juror.

Very few studies examining the influence of elderly eyewitnesses on jurors' judgments have actually examined how testimony from an elderly person impacts jurors' verdict decisions. One of the few studies that has looked at verdict decisions was conducted by Neal et al. (2012) who examined how eyewitness age (6-, 11-, 42, and 75-years-old) influenced judgments. Results determined that the child (6- and 11-year-olds) and 74-year-old eyewitnesses elicited more not guilty verdicts than the adult (42-year-old) eyewitness and that the adult eyewitness elicited higher defendant culpability ratings compared to the 6-year-old and 74-year-old eyewitnesses. In addition, the adult eyewitness elicited significantly higher credibility ratings than any of the other three age groups thus suggesting that jurors place more trust in the testimony of an adult compared to that of a child or elderly person, and that this trust influences their perceptions of defendant guilt.

In summation, it seems that the literature on perceptions of the elderly in the courtroom is complicated which does not allow for a clear explanation of an elderly eyewitness' influence. While some studies have found that there is a positive bias towards elderly eyewitnesses (e.g., Narayan, 2008; Yarmey, 1984), others have found that there is a negative bias (e.g., Neal et al., 2012). In addition, a large portion of research has either found no difference in the perception of elderly compared to adult eyewitnesses or has found variances within their own studies where the elderly are rated more positively on certain credibility characteristics but more negatively on

others (e. g., Brimacombe et al., 1997; Kwong et al. 2001; Mueller-Johnson et al., 2007). Because researchers are just beginning to examine familiar eyewitness-defendant relationships, the research that has been conducted examining adult and elderly eyewitnesses is focused on stranger relationships. Therefore, it is important to examine the role of eyewitness age when the eyewitness is familiar with the defendant. Thus, the current study examines the influence of age of the eyewitness (25-year-old vs. 50-year-old vs. 75-year-old) in combination with familiarity recency on jurors' perceptions and legal judgments.

1.3. The Current Study

Given the lack of research examining juror decision making in regards to a familiar eyewitness, the current study sought to explore how familiarity (in terms of the recency of the relationship) in combination with eyewitness age would influence jurors' perceptions of the eyewitness, perceptions of the defendant, and final guilt verdicts. Although prior research has found that older adult eyewitnesses are perceived more negatively compared to younger adults when making identifications, this research has all been done with stranger eyewitnesses. It is possible that familiarity may "override" some of the negative perceptions of older eyewitnesses thus increasing perceived credibility from jurors and narrowing the credibility gap between older and younger eyewitnesses.

Various models have been proposed for how jurors come to their final verdict decisions. Pennington and Hastie (1986) proposed the Story Model for understanding jurors' decision making. According to the story model, there are three steps involved in jurors reaching their final verdict: (1) creating mental narratives (i.e., stories based on evidence presented and prior knowledge); (2) identifying the various verdict options available, and; (3) reaching the final decision based on the match between the narrative and the most suitable verdict. The mental

narrative that is formed is influenced by the coverage (i.e., how well the story explains the evidence presented), coherence (i.e., how likely the story is), uniqueness, and goodness of fit. As such, the current study wanted to examine how familiarity recency and eyewitness age would influence mock jurors' narratives and thus, their final verdict decision.

It was hypothesized that mock jurors would perceive a witness with a more recent relationship with the defendant to be more credible than a witness with a less recent relationship and this increased credibility would lead to jurors assigning higher defendant guilt ratings. Specifically, it was predicted that eyewitness credibility and defendant guilt ratings would be highest when the familiarity recency delay was 1 year and these ratings would be lowest when the delay was 10 years. These hypotheses are based on the assumption that jurors will take into account the influence of time delays on face recognition.

As there is no known research examining jurors' perceptions of familiar elderly eyewitnesses and the research examining jurors' perceptions of stranger elderly eyewitnesses is inconsistent; the hypotheses regarding age were relatively exploratory. It was hypothesized that the younger adult eyewitnesses (ages 25 and 50) would be perceived as more credible than the elderly eyewitness and that testimony from the younger adult eyewitnesses would elicit higher defendant guilt ratings. However, it was predicted that these main effects would be qualified by an interaction. Specifically, it was predicted that there would be an interaction between age and familiarity such that the familiarity manipulations would be more influential on jurors' decision making when presented an elderly eyewitness than when presented a younger adult eyewitness. A time delay may be seen as less detrimental to a younger person's memory than to an older person's memory who may already be seen as losing cognitive abilities and capacity. As there is

limited research examining the relationship between familiarity recency and age, this hypothesis was exploratory in nature.

2. METHOD

2.1. Participants

Participants ($N = 326$) were recruited from a University in Ontario, Canada. Only jury eligible students (i.e., 18 years old or older and a Canadian citizen) could take part in the study. Participants' age ranged from 18 to 64 years ($M = 20.31$ years, $SD = 4.79$ years). There were 201 participants who identified as female, 121 who identified as male, 3 who identified as other, and 1 who chose not to disclose their gender. The participants self-identified their ethnicities as follows: White (65.0%, $n = 212$), Asian (17.5%, $n = 57$), Black (8.0%, $n = 26$), Latin American (2.8%, $n = 9$), Aboriginal (1.8%, $n = 6$), mixed origin (3.4%, $n = 11$), and other (0.6%, $n = 2$). Three participants chose not to disclose their ethnicity (0.9%). All students received course credit for their participation.

2.2. Design

A 3 (familiarity recency delay: 1 year vs. 5 years vs. 10 years) x 3 (age of eyewitness: 25 years old vs. 50 years old vs. 75 years old) between subjects design was used.

2.3. Materials

2.3.1. Trial transcript. Nine versions of a seven-page mock trial transcript varying how long ago the eyewitness knew the perpetrator (i.e., familiarity recency; 1 year ago, 5 years ago, 10 years ago) and the age of the eyewitness (25-, 50-, 75-years-old) were created. The case described in the transcript involved the robbery of a convenience store where the key piece of evidence is an eyewitness testimony and identification. The eyewitness testified that he was sitting in his car outside the convenience store when he saw a man leaving the store while taking

off a mask. He then reported that the man ran away from the store. The witness testified that the robber looked like an old neighbor. Specifically, the eyewitness reported that, “[the robber] looked an old neighbour who moved away **one year/five years/10 years ago**”. He stated that he only saw the robber briefly when running away from the store and that he got a good look at the robber, “I got a good look at him. The ski mask was odd so it made me pay attention”. When the eyewitness was discussing his relationship with the defendant the eyewitness stated “[the defendant] is somewhat familiar to me...I knew [the defendant] before he moved; I would usually see him around the dog park”. The transcript also provided details about the identification stating that one week after the robbery the eyewitness was presented a lineup and identified the defendant; however, no information was provided about the eyewitness’ confidence in the identification. All transcripts began with an opening statement and instructions by the judge followed by opening statements from the Crown and Defence Attorney. Six witnesses provided testimony, three for the Crown (i.e., the store clerk, a detective, and the eyewitness) and three for the Defence (i.e., the defendant’s long-time friend, the defendant’s girlfriend, and the defendant). The transcript concluded with closing statements from the Crown and Defence Attorney, and the judge providing the law and reminding the jury of their duties.

2.3.2. Verdict form. Participants were asked to rate the degree to which they felt that the defendant was guilty or not guilty on a 101-point scale (0 = *definitely not guilty*, 100 = *definitely guilty*). Participants also were asked to render a dichotomous verdict of guilty or not guilty based on the testimonies they read.

2.3.3. Eyewitness and defendant perceptions. Participants were asked to rate the eyewitness’ testimony on several dimensions (i.e., reliability, accuracy, credibility, truthfulness,

and believability) using a 7-point scale (1 = *not at all*, 7 = *absolutely*). Participants also were asked to rate the defendant's testimony in the same manner.

2.3.4. Familiarity rating. Participants were asked to rate how familiar they thought the eyewitness was with the defendant in the case using a 101-point rating scale (0 = *not familiar*, 100 = *very familiar*).

2.3.5. Manipulation check. Participants were asked four multiple-choice questions to examine the juror's comprehension of the trial transcript. Two of which determined whether the juror retained the information regarding the manipulated variables.

2.4. Procedure

Data were collected online using the survey tool Qualtrics. After signing up for the study, participants were given a unique URL which directed them to the online study. Participants were randomly assigned to one of the nine experimental conditions. Participants were first asked to read an informed consent form that provided them with the essential details of their participation. Those who chose to participate filled out a demographics form and were instructed to read through the trial transcript. After reading through the transcript, participants were then prompted to fill out the verdict form, the questionnaires regarding their perceptions of the eyewitness and defendant, and the question regarding their views on the eyewitness' familiarity with the defendant. Participants were then asked to complete the manipulation check questions. Finally, participants were directed to the debriefing form and thanked for their participation.

3. RESULTS

3.1. Manipulation Check

In order for their data to be included in the analyses, participants had to correctly answer two manipulation check questions regarding the manipulated variables. One question relating to

the prior relationship shared between the eyewitness and defendant (i.e., relating to familiarity recency) and one question regarding the age of the eyewitness. A total of 329 students participated in the current study; however, 40 (10.8%) were excluded due to incorrectly answering the question concerning the age of the eyewitness, and 6 (1.6%) were excluded for incorrectly answering the question concerning familiarity. Therefore, the following analyses were based on $N = 326$.

3.2. Dichotomous Verdict

A hierarchical binary logistic regression was conducted to examine whether eyewitness familiarity recency (1 year delay was used as the reference group), eyewitness age (25 years old was used as the reference group), and the product term representing the two-way interaction predicted mock jurors' dichotomous verdict decisions (Not Guilty = 0, Guilty = 1). Block 1 contained the main effects and Block 2 contained the main effects and interaction term. There was no main effect of familiarity recency, Wald's $\chi^2(2) = 2.41, p = .30$ and no main effect of eyewitness age, Wald's $\chi^2(2) = 2.65, p = .27$. In addition, the interaction between familiarity recency and eyewitness age was not significant, Wald's $\chi^2(4) = 6.45, p = .17$ (see Table 1 for information on the proportion of guilty verdicts for each condition).

3.3. Continuous Guilt Rating

A two-way analysis of variance (ANOVA) was conducted to examine the influence of eyewitness familiarity recency and eyewitness age on mock jurors' continuous guilt ratings (see Table 2 for means and standard deviations). There was no significant main effect of familiarity recency, $F(2, 317) = 0.13, p = .88$; nor was there a significant main effect of eyewitness age, $F(2, 317) = 1.32, p = .27$. In addition, the interaction between familiarity recency and eyewitness age was not significant, $F(4, 317) = 1.32, p = .26$.

3.4. Perceptions of the Eyewitness

Participants were asked a series of questions regarding their perceptions of the eyewitness, all of which were significantly correlated ($p < .001$); thus, a composite score was created ($\alpha = .92$; see Table 2 for means and standard deviations). Higher scores on this measure indicate more positive perceptions of the eyewitness. A two-way analysis of variance (ANOVA) was conducted to examine whether familiarity recency and eyewitness age influence mock jurors' perceptions of the eyewitness. There was no significant main effect of familiarity recency, $F(2, 317) = 0.63, p = .53$; nor was there a significant main effect of eyewitness age, $F(2, 317) = 0.24, p = .79$. In addition, the interaction between familiarity recency and eyewitness age was not significant, $F(4, 317) = 0.92, p = .46$.

3.5. Perceptions of the Defendant

Participants also were asked a series of questions regarding their perceptions of the defendant, all of which were significantly correlated ($p < .001$); thus, a composite score was created ($\alpha = .96$; see Table 2 for means and standard deviations). Higher scores on this measure indicate more positive perceptions of the defendant. A two-way ANOVA was conducted to examine whether familiarity recency and eyewitness age influence mock jurors' perceptions of the eyewitness. There was no significant main effect of familiarity recency, $F(2, 316) = 0.52, p = .60$; nor was there a significant main effect of eyewitness age, $F(2, 316) = 1.46, p = .23$. In addition, the interaction between familiarity recency and eyewitness age was not significant, $F(4, 316) = 1.85, p = .12$.

3.6. Familiarity Rating

It was of interest to determine whether the magnitude or quality of familiarity (assessed by asking participants, "How familiar would you rate the eyewitness as being with the defendant

in this case?" on a scale from 0 to 100) was influenced by the recency of familiarity. In other words, would a more recent relationship be regarded as more familiar? To determine this, an ANOVA was conducted to see whether the mean familiarity rating differed based on the familiarity recency conditions (1 year vs. 5 years vs. 10 years). Results indicated there was no difference in the familiarity ratings between the three conditions, $F(2, 321) = 0.39, p = .68$.

Four regression analyses were run to determine whether the familiarity ratings predicted participants' dichotomous guilt verdicts, continuous guilt ratings, perceptions of the eyewitness, and perceptions of the defendant. Using a Bonferroni adjustment for multiple comparisons, the alpha per comparison ($\alpha = 0.5$) was divided by the number of regressions (i.e., 4) to get a familywise alpha of 0.0125. First, a binary logistic regression was conducted to examine whether participants' familiarity rating predicted mock jurors' dichotomous verdict decisions. There was a significant main effect of familiarity, for each one unit increase in familiarity rating, the odds of making a guilty verdict increased 1.08 times, $b = 0.08, SE = 0.01, \text{Wald's } \chi^2(1) = 67.15, p < .001, e^b = 1.08, 95\% \text{ CI } [1.06, 1.11]$. Thus, the more familiar the participant thought the eyewitness was with the defendant, the more likely to state a guilty verdict. Next, the three remaining linear regression analyses were run to examine whether the subjective familiarity ratings predicted continuous guilt ratings, perceptions of the eyewitness, and perceptions of the defendant. All regression analyses were significant. The more familiar the mock juror rated the eyewitness-defendant relationship, the higher the guilt rating, $R^2 = 0.59, F(1, 322) = 205.06, p < .001$; the more positive their perceptions were of the eyewitness, $R^2 = 0.78, F(1, 322) = 167.95, p < .001$; and the more negative their perceptions were of the defendant, $R^2 = 0.81, F(1, 322) = 92.72, p < .001$ (see Figs. 1, 2, and 3).

4. DISCUSSION

The purpose of the present study was to examine the influence of familiarity (in terms of the recency of the relationship) and eyewitness age on mock jurors' perceptions of the eyewitness, perceptions of the defendant, and final verdict decisions. Using a mock trial transcript, participants provided several ratings and a verdict decision. While the familiarity and age manipulations were not predictive of jurors' judgements, subjective perceptions of familiarity were found to influence mock jurors' decision-making.

4.1. Familiarity

Research examining the influence of familiarity on juror decision making is limited despite the large number of cases in which an eyewitness will report being familiar with the person identified (Flowe et al., 2011). As familiarity is a complex concept with various elements, it was the purpose of the present study to examine a factor of familiarity that has been relatively unexplored; specifically, the recency of the familiar relationship. In the current study, how recent the familiar relationship was did not significantly influence jurors' verdict decisions. This is consistent with the results from Vallano et al. (2018) that determined that the recency of the familiar relationship did not influence mock jurors' verdict decisions. In addition, the current study found that familiarity recency did not influence mock jurors' evaluations of the credibility of the eyewitness, suggesting that mock jurors may feel as though a person's memory of someone familiar is not something that fades or decays over time. Although it was predicted that mock jurors would view the testimony of someone with a less recent relationship as less credible than an eyewitness who has a more recent relationship, the lack of significant findings may suggest that jurors do not believe increasing time can effect memory of someone already familiar. Another explanation for the lack of significant findings could be because the participants in the current study may not have viewed 1, 5, and 10 years delay as sufficiently

distinct from one another. It is possible that with more differentiated time delays (e.g., 6 months vs. 10 years vs. 25 years) different results would have emerged and mock jurors may have considered the delay when evaluating the credibility of the witness and deciding on a verdict for the defendant.

Although familiarity recency did not influence jurors' verdicts or perceptions, participants' subjective familiarity ratings did influence jurors' decisions; perceived familiarity between the eyewitness and defendant influenced mock' jurors guilt verdicts, guilt ratings, and perceptions of both the eyewitness and defendant. Specifically, the more familiar the mock jurors rated the relationship, the more likely they were to reach a guilty verdict, provide a higher guilt rating, have more positive perceptions of the eyewitness, and have more negative perceptions of the defendant. Past research on eyewitness familiarity has generally focused on the experimental familiarity manipulations and has either not examined or not reported on the participants subjective ratings of familiarity. If subjective familiarity and objective familiarity (i.e., as experimental manipulations) are comparable then the results of the current study are consistent with Sheahan et al. (2018) where it was found that jurors assigned more guilty verdicts and higher guilt ratings when the eyewitness and defendant were described as familiar compared to when they were described as strangers. In addition, research from Pica et al. (2017) and Vallano and colleagues (2018) also suggest that jurors consider familiarity when making decisions; however, the familiarity effects within these studies were not consistent. Therefore, it is not clear at this time what definition of familiarity would be influential enough for jurors to fully trust the credibility of an eyewitness identification. Regardless, results from the current study suggest that irrespective of the definition or description of the relationship between the eyewitness and defendant, subjective perceptions of familiarity are influential and impact jurors' decision

making. It is important to note however that because of the design of the study, it can only be speculated that mock jurors' perceptions of familiarity influenced their decision making and not the other way around. It is possible that their decisions about guilt and their perceptions of the eyewitness and defendant influenced their rating of how familiar they viewed the eyewitness-defendant relationship.

When examining familiarity in terms of both recency and magnitude, it seems that the perceived magnitude of familiarity was influential in mock jurors' judgments; however, the recency of the relationship was not. Therefore this suggests that jurors are sensitive to the effects that the quality of a relationship can have on memory and believe this quality cannot be influenced by time. In other words, jurors seem to believe that increased familiarity is related to better memory accuracy and that this memory accuracy remains consistent regardless of the amount of time that has passed since the relationship occurred. However, because the participants were not asked about their views on memory, this cannot be said with certainty. What can be said is that familiarity is not universally defined and that the same relationship (in this case, a former neighbour) is considered an extremely familiar relationship to some individuals, while it is considered an unfamiliar relationship to others. This was evidenced by the fact that the familiarity ratings from participants ranged from 0 to 97 with large variability ($M = 43.25$, $SD = 21.55$). Thus, future research should continue assessing perceived familiarity and how this may affect jurors' judgements. Until we have a better understanding and conceptualization of familiarity, it may be difficult for experimental manipulations to capture the subjectiveness of familiarity.

4.2. Eyewitness Age

Although there are many studies examining the influence of age on juror decision making, the research that exists tends to focus on comparisons between children and adults; there is very little research looking at older adults and the elderly. Therefore, the current study was interested in examining how jurors' perceptions and verdict decisions would be influenced by eyewitnesses of varying adult and elderly ages (i.e., young adult [25]; middle-aged adult [50] and older/elderly adult [75]). The results identified that mock jurors' perceptions and verdict decisions were not influenced by the age of the eyewitness. This suggests that mock jurors found the testimonies of the younger and older adults equally as credible. Based on research suggesting that elderly persons are not as accurate as young adults at discriminating between guilty and innocent suspects (e.g., Fitzgerald & Price, 2015), it was predicted that mock jurors would be aware of this notion and thus rate older witnesses as less credible than younger witnesses. As this was not found however, it may be that when the eyewitness is familiar with the suspect that age becomes irrelevant to mock jurors' judgements of credibility. In other words, once a certain level of familiarity is achieved between an eyewitness and a suspect, it may be believed that an eyewitness of any age could have good memory accuracy. As the majority of past research examining older eyewitness accuracy has been conducted with eyewitnesses who are unfamiliar with the suspect, it is not clear whether this assumption is warranted. It would be of interest for future research to examine participants' beliefs about the effects of age on eyewitness (stranger and familiar) accuracy to see whether these beliefs are associated with their verdict decisions. An alternative explanation for the results could be simply due to a lack of differentiation between the ages chosen for the eyewitness. It is possible that the sample used (i.e., university students) may not view a 50-year-old and a 75-year-old as being much different in terms of cognitive abilities. Further, it is possible that in order for age to be influential the manipulation may need to be more

apparent. Presenting a videotaped trial (where mock jurors are able to see visual cues of aging) would allow the age manipulation to be more perceivable. Future research could test these possibilities by examining eyewitness ages that are more disparate from one another and use a videotaped trial as opposed to a trial transcript.

With regards to the story model, the results from the current study would suggest that when jurors were creating their mental narrative they did not view the familiarity recency or age information as influential or unique enough to affect their narrative. Thus, the final decisions of the jurors in all experimental conditions were similar suggesting the mental narratives formed were similar.

4.3. Limitations

When discussing the findings it is important to consider the limitations of the current research. First, the sample consisted of only undergraduate students which may hinder the external and construct validity of the results (Keller & Wiener, 2011; Wiener et al., 2011). In particular, when examining age and older age as an independent variable, relying on participants from a much younger cohort may not be representative of a broader community sample. Future research should incorporate the use of a community sample in order to determine whether the results would be replicated within a more representative sample. Another limitation is the use of individual jurors as opposed to a full mock jury. By using jurors (rather than jury) this study only evaluates individual opinions rather than group deliberations which occur in real trials involving juries. Research has demonstrated that groups tend to think differently than individuals and that jury deliberations influence the final verdict decision (Nunez et al., 2011). However, individual opinions are still an important aspect in the jury decision making process, and thus examining how various factors influence jurors decisions is necessary for understanding the final verdict.

Another possible limitation of the study was the manner in which the case was presented to the mock jurors. In juror decision making studies there are generally two methods of presenting the trial; the first is to present a video recording of a simulated mock trial and the second is to present a written transcript (as done in the current study). Presenting a video of a mock trial is more representative of what a juror would experience in the real world. Thus, in the current study the ecological validity of the results may suffer. However, Pezdek et al. (2009) examined jurors' perceptions using both transcript and video trials and found that the modality in which a trial was presented to a juror did not significantly impact their perceptions; thus suggesting that written and video trials are equally ecologically valid.

4.4. Conclusions and Future Directions

The results from this study indicate that the recency of a familiar relationship is not influential in jurors' perceptions and legal judgements. This finding suggests that jurors may believe a person's memory of someone familiar is not something that decays over time. The results from the current study also suggest that subjective perceptions of familiarity are highly influential to jurors' perceptions of the eyewitness, defendant, and verdict decisions. This provides interesting avenues for future research to try and develop a consistent way to measure perceived familiarity and possibly examine how individual characteristics may influence perceived familiarity. An eyewitness may describe their prior relationship with a suspect in a variety of ways, therefore future research needs to examine various conceptualizations of familiarity and how these different conceptualizations impact jurors' perceived familiarity and decision making. This is an important task as familiar eyewitness cases are common (Flowe et al., 2011).

In addition, it would be valuable for future research to examine the influence of eyewitness familiarity when testifying across various types of crimes. It is likely that a familiar eyewitness would be perceived as more or less credible depending on the type of crime they are testifying on. For example, it is possible that jurors would perceive a familiar eyewitness account to be more credible for a violent crime than for a nonviolent crime. As these suggestions are just a small example of possible future directions, it is clear that more research is necessary for understanding and explaining jurors' decision making in cases involving familiar eyewitnesses.

The current study also explored the influence of age on jurors' judgments and found that jurors' do not perceive the eyewitness testimony of adults and elderly persons differently. This suggests that jurors do not hold bias towards the accuracy or credibility of an elderly person's testimony when the eyewitness is familiar with the defendant. However, because this is the only known study for which jurors' verdict decisions are actually assessed following the testimony from an elderly person familiar with the defendant, future research should continue examining older eyewitnesses and their influence on jurors' verdict decisions. Specifically, future research should try and determine whether there is a threshold age for which eyewitness credibility starts to decrease leading to jurors' assigning higher defendant guilt ratings and which other factors may interact with age of witness to influence juror decision-making in both stranger and familiar eyewitness cases.

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Table 1.

Proportion of Guilty Verdicts (%) based on Eyewitness Age and Familiarity Recency

	Familiarity Recency		
	1 year	5 years	10 years
Eyewitness Age			
Age 25	11.5	36.7	24.1
Age 50	21.1	37.8	35.5
Age 75	29.0	18.8	23.4

Table 2.

Means and Standard Deviations for Ratings of Continuous Guilt, Eyewitness Perceptions, and Defendant Perceptions by Eyewitness Age and Familiarity Recency

	Continuous Guilt		Eyewitness Perceptions		Defendant Perceptions	
	<i>M</i>	SD	<i>M</i>	SD	<i>M</i>	SD
	Age 25					
Familiarity Recency						
1 year	38.95	23.34	17.31	5.88	20.54	5.63
5 years	49.56	29.43	20.33	7.59	19.07	7.44
10 years	42.59	25.21	20.31	6.61	19.78	6.60
Age 50						
Familiarity Recency						
1 year	42.97	22.80	18.79	6.71	22.11	5.17
5 years	46.64	28.29	19.46	6.41	19.65	6.92
10 years	45.03	26.75	17.98	8.03	20.76	6.32
Age 75						
Familiarity Recency						
1 year	44.29	24.69	19.13	7.12	20.39	6.77
5 years	35.31	23.66	18.67	7.33	23.02	6.63
10 years	39.93	24.48	18.26	6.76	20.30	5.70

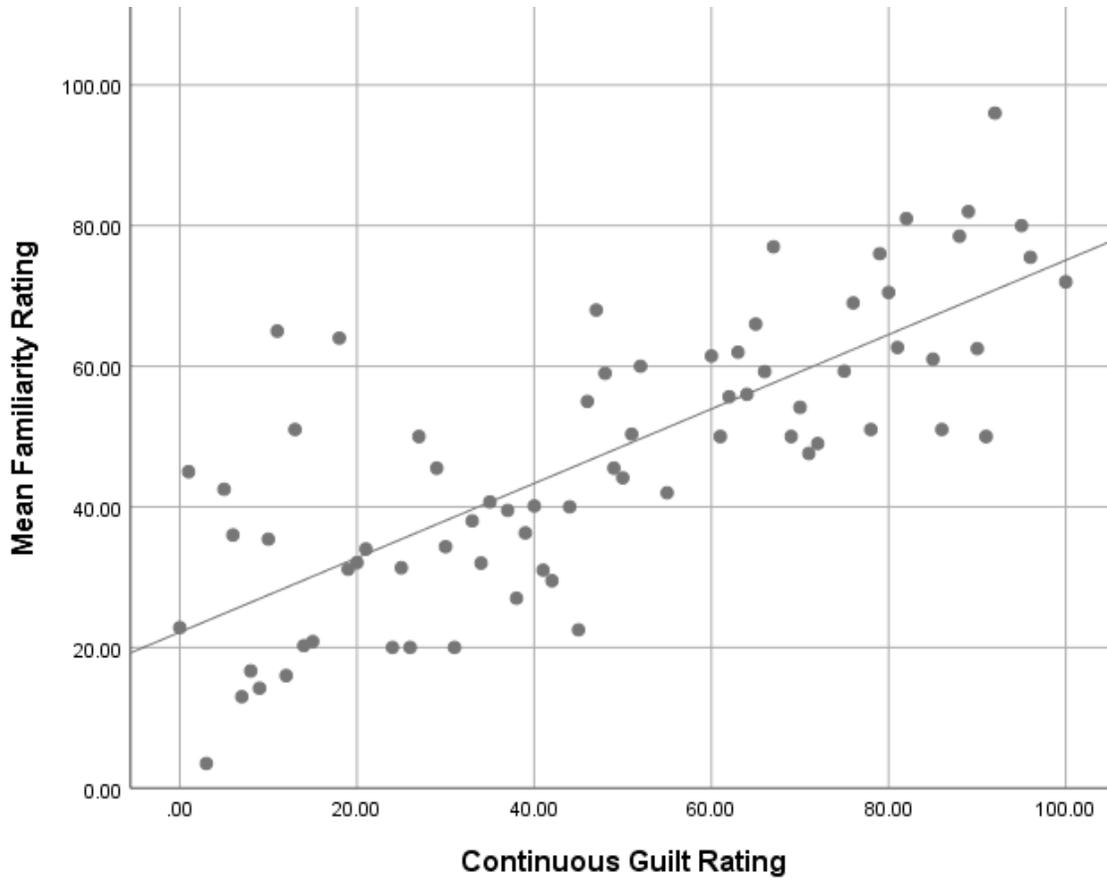


Fig. 1 Relationship between continuous guilt rating and mean familiarity rating. Line represents the line of best fit ($R^2 = 0.59$).

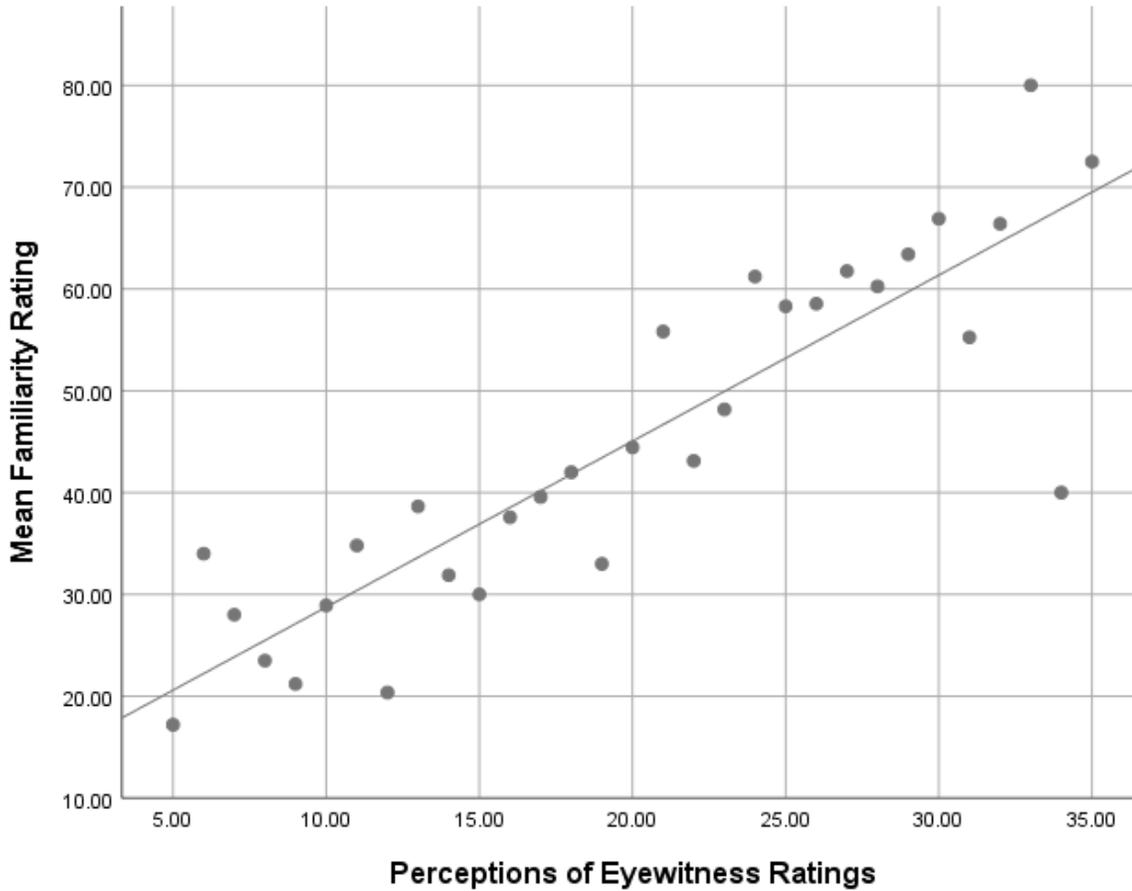


Fig. 2 Relationship between jurors’ perceptions of the eyewitness and mean familiarity rating. Line represents the line of best fit ($R^2 = 0.78$). *Note:* higher scores on perceptions rating indicate more positive perceptions.

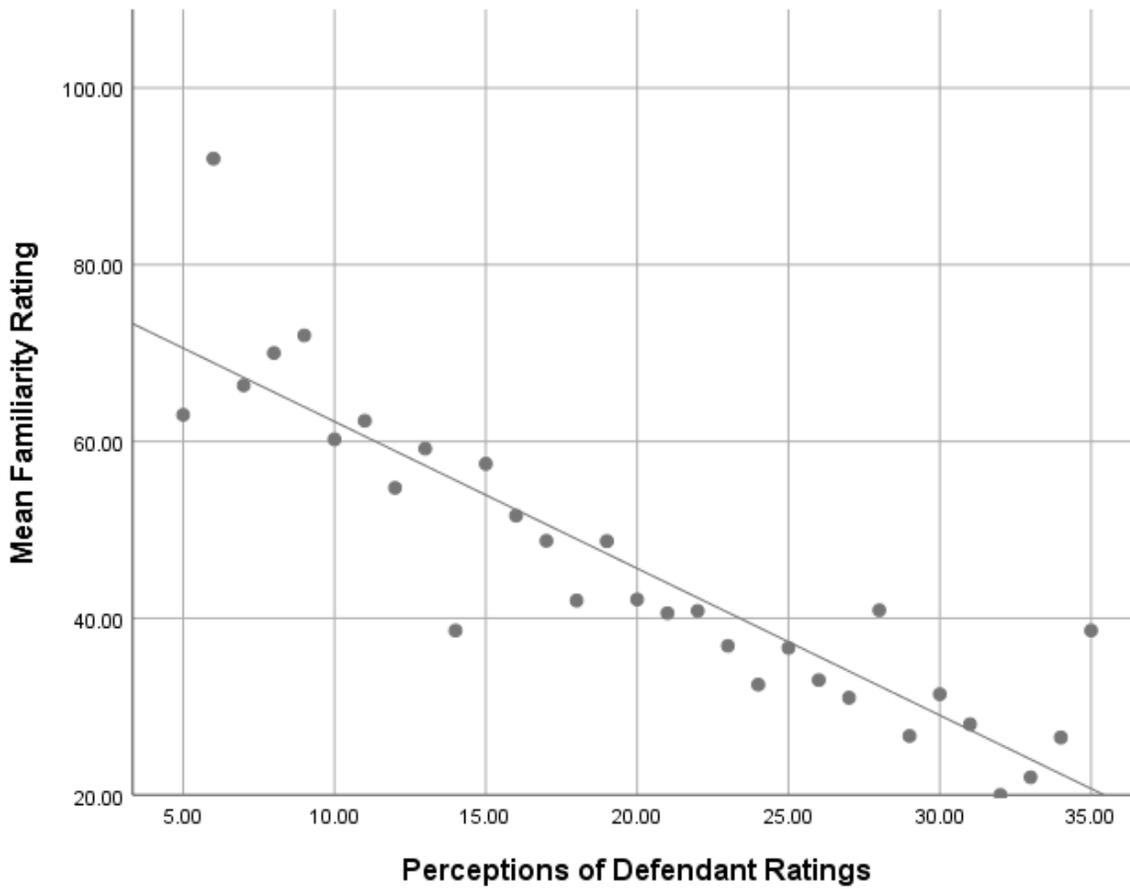


Fig. 3 Relationship between jurors’ perceptions of the defendant and mean familiarity rating. Line represents the line of best fit ($R^2 = 0.81$). *Note:* higher scores on perceptions rating indicate more positive perceptions.