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Are Mock Jurors Influenced by the Defendants Gender, Socio-Economic Status and Emotional State in Forensic Medicine?

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Abstract

The aim of this study was to investigate whether mock jurors' decisions were affected by the defendant's gender, socio-economic status and emotional state in mock cases. The implications are far reaching, especially in trials that involve forensic medicine. An experimental design was used where a total of 24 participants from Bournemouth University took part, and were assigned to one of four groups. In these groups, the three independent variables were manipulated. Participants were presented with two murder/manslaughter cases. The results suggest male defendants received harsher judgements than female defendants. More female defendants were found not guilty than male defendants. Male defendants from a high socio-economic background received harsher judgements than male defendants from a low socio-economic background. Female defendants from a low socio-economic background received harsher judgements than female defendants from a high socio-economic background. Female defendants were found to be more trustworthy than male defendants. These findings are discussed in the context of the jury's verdict, sentence length and personal opinion of the defendant.

Introduction

The jury system has frequently found itself under question regarding defendant acquittal irrespective of being proven guilty beyond any reasonable doubt. A prime example of this comes from the United States where Rodney King, a black motorist, was beaten by four white police officers in 1991. Despite videotaped evidence of the event, the policemen were later acquitted of all charges. Ever increasing events of unjust acquittals', for example, the beating of Matthew Butcher in 2009, and the murders of Kevin Woodhouse in 2004, and Jay Wragg in 2008, have caused considerable concern. As a result, there has been a huge increase in literature of the reliability jurors. In the United Kingdom, there has also been considerable debate over reviewing certain aspects of

the judicial system (Thompson, 2009).

Psychologists have systematically examined the processes in an attempt to determine contributory factors in the reliability of the jury system. However, studies of actual jury verdicts and the outcomes of psychological research into jury decision making suggest that the jury system is not always a reliable method for determining guilt or innocence (Harrower, 2001).

Non legal characteristics of defendants have been found to influence jurors. These include body language and physical appearance with attractive defendants being dealt with less harshly. A similar background to the defendant, on the assumption that we like people who are similar to us, and gender are also confounding variables to jury reliability. The availability heuristic is a likely determinant of jurors' final verdict. It must also be taken into consideration that the jury, as a small group, is also blighted by the influences that bear upon other groups, rather than being objective arbiters of justice.

Psychological factors surrounding group dynamics such as conformity and group polarisation are also contenders for investigation in this area. Individual differences will be the focus of this study, specifically, ethnicity in which gender, socio- economic status and emotional state of the defendant will be examined.

Lawyers have been advised of these factors to ensure justice is done in court. For example, women do not make suitable candidates for jurors as they are unpredictable and heavily influenced by their emotions. However, this information is often written by lawyers themselves resulting in a lack of construct validity. As legislation makes it difficult to study the way in which real juries make decisions, there is a lack of empirical research to these factors. Although shadow juries and mock juries go some way in testing the way in which real juries make decisions, they can in no way replicate the experience of an actual jury.

Socio-economic status biases

Socio-economic status has a long history in the criminology literature, from the Chicago School of Criminology, also referred to as the ecological theory, to the social disorganisation theory. However, its link to jurors' decision-making has been rather limited. Over the years it has been well documented that most

offenders tend to be young, disadvantaged males usually unemployed or employed in low paying, unskilled jobs (Sacco & Kennedy, 2002). Serious offences including assault, robbery and homicide, are highly prevalent in these social and economically disadvantaged areas. It is worthwhile to consider the "self-fulfilling prophecy" as a possible contributor than simply linking the two variables together.

Furthermore, individuals of low socio-economic background have received negative bias from individuals from a higher socio-economic background, culminating in negative stereotypes. Espinoza and Wills-Esqueda's (2008) capability and trait assessment is a prime example of how race and social economic status may influence a jury's verdict. In their investigation, white jurors were found to be biased against Mexican-American defendants only when they were from a low social economic status and when represented by an individual of the same race as the defendant.

However, violent crime does not always necessitate the use of personal bias. Ferguson, Miller-Stratton, Heinrich, Fritz and Smith's (2008) investigation into 'judgements of culpability in a filicide scenario' found that the jury's verdict was not affected by social class and gender. Generalisation of these results is called into question regarding sampling bias and criminal offence. Further investigations are needed to help identify situations in which juror bias may or may not influence the outcome of a trial. This study will therefore look at a possible manslaughter charge.

Effects of the defendant's emotional state

Research suggests that individuals frequently make decisions that are congruent with their mood state, even more so when the target is complex and there is no pre-existing information available (Griffin & Patty, 2004). It is reasoned that this is because individuals recall material that is consistent with their current mood-state. Individuals are also likely to directly attribute their current mood state to what they are evaluating. For jurors, this would be the defendant. Heightened emotions like these can be consequential in the courtroom as emotions can affect how we process evidence.

The Dual Process Model states that we process information through either a quick and efficient route or deliberative and effortful route. Information processing becomes depleted when we are faced with heightened emotions. Lerner and Tiedens (2006) found that anger results in shallower processing as it makes people feel more confident in their judgements. Adding to this is Moons and Mackie's (2007) observation that there is an increase in the use of stereotypes by jurors when angry.

With a tendency to create evidence that supports our stereotypes, these schemas have the power to remain even in the face of contradictory information. For example, a male defendant from a low socio-economic status whom is accused of murder is likely to be found guilty despite no forensic evidence linking him to the crime. This inability to process information deeply, leads to a reliance on cognitive heuristics. The verdict, therefore, ends up being justified by deeper cognitive reasoning after the event.

Not only does the jury's mood state affect the defendant, the defendant's mood-state affects the jury. Heath's (2009) study looking at simulated and actual jurors found defendants whom displayed low levels of emotions gave jurors the impression that they were guilty. Levels of emotion have a significant effect on jurors when the evidence against the defendant is weak.

Strong emotions on the part of the defendant resulted in a lower proportion of guilty verdicts, shorter length of sentences, as well as being perceived as honest (Heath, Grannemann & Peacock, 2004). Remorse has also been found as a confounding variable to length of sentence. Defendants who appeared to show remorse received less severe sentencing than those who appeared to show no signs remorse (Robinson, Smith-Lovin & Tsoudis, 1994).

Effect of the defendant's gender

Gender is a well established research topic with an extensive body of literature. In the last decade there has been an increase in research into its applicability in criminal cases (Breheney, Groscup & Galietta, 2007). Nunez, Dahl, Tang and Jensen's (2007) study into how gender influences jurors' decisions clearly suggest that male and female defendants are responded to differently.

Pre-conceived notions of the traditional roles of males and females are a possible explanation for these findings. McCoy and Gray (2007) suggest that jurors see female defendants as more believable than male defendants. This assumption is likely to be based on males committing high risk crimes and having high re-offending rates. Additionally, female defendants are often mothers with primary responsibility for their children which makes them seem unlikely to commit a serious crime and/or be treated leniently by the court.

As with the majority of these studies, generalisation is a problem in regards to imitating real court cases, sampling bias and type of crime. Investigations into gender bias in the courtroom often use the most severe crimes and a standard population of students. A wider population sample and various levels of crime may affect the current gender bias. A meta-analysis of conviction rates for gender and type of crime is

needed.

Methods

Aims

The aim of the present study is to investigate whether the jurors' verdict of guilty or not guilty will be affected by the defendant's gender, socio-economic status and emotional state. The influence these factors have on the jury to the defendant's likeability and trustworthiness as well as its effect on sentence length, will also be examined.

Experimental hypothesis

Hypothesis 1: There will be a significant difference in each jury member's verdict depending on the gender, socio-economic status and emotional state of the defendant.

Hypothesis 2: Male defendants will be convicted of murder and receive harsher sentences more often than female defendants.

Hypothesis 3: Defendants who are perceived as not displaying the appropriate behaviour or emotion to the case will have a higher rate of conviction.

Null hypothesis: There will be no significant difference in the verdicts for defendants of different gender, socio-economic status and emotional state.

Design

A 2x2x2 between-subjects design, considering the influence of gender, socio-economic status and emotional state has on a jury's verdict in a murder case scenario will be employed. The present study is also interested in whether these factors effect the length of sentence decided by the mock jury and whether or not they consider the defendant is trustworthy and likable. Therefore, structured questionnaires were used to investigate participants' decisions, and also how confident they were in making their decision.

Predictor variable manipulations

Socio-economic status - In case 1, the defendant was described as coming from a low socio-economic background. The defendant lived in a rough area or council estate and has trouble with work and lives on benefits. In case 2, the defendant was described as coming from a high socio-economic background. The defendant came from a wealthy family and owned their own business.

Emotional state - In case 1 the defendant is described as being very upset and distressed by the event and struggled to make their statement. In case 2, the defendant was described as showing no emotional affect by the event.

Gender - In case 1, the defendant was described as

being male by use of name and title. In case 2, the defendant was described as being female by use of name and title.

Criterion variable

Participants' verdict - This is the main criterion variable investigated in this study. Participants were asked to select whether they found the defendant 'guilty of murder', 'guilty of manslaughter' or 'not guilty'.

Recommended sentencing - Participants were asked to select which sentence they felt was appropriate for the defendant in each of the two cases.

Confidence in decision - Participants were asked to indicate how confident they were in making their decision on a Likert scale, varying from '1' being 'not confident' to '10' being 'very confident'.

Defendant's likeability - Participants were asked to indicate how likeable they found the defendant on a Likert scale, varying from '1' being 'not at all likable' to '10' being 'very likable'.

Defendant's trustworthiness - Participants were asked to indicate how trustworthy they found the defendant on a Likert scale, varying from '1' being 'untrustworthy' to '10' being 'completely trustworthy'.

It was noted that a possible extraneous variable that may affect the results is the mood of the participant that day.

Participants

Twenty-four mixed gender undergraduate students aged between 18 and 25 from Bournemouth University participated in return for course credit through opportunistic sampling.

Materials

Eight script versions of a defendant in a murder/manslaughter trial were used, with variations on gender, socio-economic status and emotional state (Illustration 1). A questionnaire was used to determine the participant's verdict, as well as sentence length recommendation and the likeability and trustworthiness of the defendant (Illustration 2). The Hospital Anxiety and Depression Scale (HADS) was used to check that anxiety was not a factor which influenced the participants' decisions.

Procedure

Before the study began, each participant was briefed and asked to sign participation consent forms. They were also reminded that all results would remain anonymous. Participants were told that they were going to be mock jurors, and to treat the process as if they were real jury members. They were also asked to consider all the information very carefully. Participants were then split into four groups, each consisting of eight participants.

Participants in group A were given two versions of a murder/manslaughter case, with two different types of

defendant. Defendant 1 being a male of a high social economic status that became very upset at the trial, and Defendant 2 being a female of a low social economic status that showed no emotion at the trial.

Participants in group B were again given two cases of a murder/manslaughter defendant, one of which involved the defendant being male, of a low social economic status that became very upset at the trial. The second was female, of a high social economic status that showed no emotion at the trial.

Participants in group C were again given two cases of a murder/manslaughter defendant, one of which involved the defendant being male, of a low social economic status that showed no emotion at the trial. The second was female, of a high social economic status that became very upset at the trial.

Participants in group D were given two cases of a murder/manslaughter defendant, one of which involved the defendant being male, of a high social economic status that showed no emotion at the trial. The second was female, of a low social economic status that again became very upset at the trial.

Each group was taken separately into a quiet room where they were asked to sit at individual desks and not to confer with each other during the duration of the experiment. Participants were then asked to study the information in case 1 for three minutes. After being notified when the three minutes were up, participants were asked to complete the associated questionnaire. This questionnaire determined their verdict and how confident they were in making their decision.

Participants were asked to repeat this procedure for case 2. Following this, participants were asked to complete the HADS to rule out anxiety as a confounding variable. After all the data had been collected from the participants, they were debriefed on the study's purpose, asked if they had any questions and were given contact details of the lead investigator.

Ethical Issues

Prior to the commencement of the study, participants read a brief that outlined the study's main aims and objectives. The opportunity to withdraw at any time with no repercussions and the assurance of confidentiality of data collection was also clearly stated. All data obtained in this study was collected and analysed by the author, with participants' being identifiable by number only. Participants were briefed and debriefed to reduce any possible distress.

Results

Verdict decisions

Out of the forty-eight cases presented to twenty-four participants, 73% gave guilty verdicts. Of these verdicts, 42% of the cases received a 'guilty of murder verdict', and 31% of the cases received a 'guilty of manslaughter' verdict. Of the thirty-five cases which received guilty verdicts, 23% of cases in which the defendant was male received a 'guilty of murder' verdict, compared to 26% which received a 'guilty of manslaughter' verdict (Illustrations 3 & 4).

Only 20% of these cases which involved a female defendant, received a 'guilty of murder' verdict, compared to 28% which received a 'guilty or manslaughter' verdict. Cases which described the defendant as being upset or distressed by the situation, received 17% 'guilty of murder' verdicts, and 26% 'guilty of manslaughter' verdicts.

Cases which described the defendant as showing no emotional effect by the situation, received 26% 'guilty of murder' verdicts, and 28% 'guilty of manslaughter' verdicts. Cases which described the defendant as coming from a low socio-economic background, received 17% 'guilty of murder' verdicts, and 26% 'guilty of manslaughter' verdicts. Cases which described the defendant as coming from a high socio-economic background, received 26% 'guilty of murder' verdicts, and 28% 'guilty of manslaughter' verdicts.

It should also be noted that of the 13 cases in which the verdicts were 'not guilty', 54% of the defendants were females, and 46% of the defendants were male. 77% were of the cases involved the defendant being described as coming from a low socio-economic status, and 23% from a high socio-economic background. 69% of the cases involved the defendants being described as appearing to be upset or distressed by the situation, whereas only 31% of the cases involved the defendants being described as showing no emotional effect by the situation.

Recommended sentencing decisions

2 (Gender) x 2 (Socio-economic status) x 2 (Emotional State) between subjects ANOVA was used to analyse what sentence the participants recommended the defendants should receive. This did not include the 13 cases in which the verdict received was 'not guilty', and therefore sentencing recommendations were not made (Illustration 5).

The analysis revealed the main effect of whether the gender of the defendant was male or female, was not significant ($F(1,27)=.191$, $p = .665$, partial $\eta^2=.007$). The main effect of whether the socio-economic status (SES) of the defendant was low or high, was also not significant ($F(1,27)=.131$, $p = .710$, partial $\eta^2=.005$). The main effect of whether the emotional state of the defendant was upset/distressed or showed no

emotional effect, was not significant ($F(1,27) = .611, p = .441, \text{partial } \eta^2 = .022$).

There was no significant interaction between the factor of gender and the factor of socio-economic status ($F(1, 27) = .914, p = .348, \text{partial } \eta^2 = .033$). However, there was a significant interaction between the factor of gender and the factor of emotional state ($F(1, 27) = 4.082, p < 0.05, \text{partial } \eta^2 = .131$). There was no significant interaction between the factor of socio-economic status and the factor of emotional state ($F(1, 27) = .078, p = .783, \text{partial } \eta^2 = .003$).

There was no significant interaction between the factor of gender, the factor of socio-economic status and the factor of emotional state ($F(1, 27) = .002, p = .963, \text{partial } \eta^2 = .000$). Male defendants received longer sentences from participants when they were from a high socio-economic status ($M=10.67, SD= 4.83$). Participants gave male defendants from a low socio-economic status less harsh sentences ($M=9.42, SD=6.56$).

Participants also gave male defendants longer sentences when they appeared to be upset or distressed by the situation, especially when they were from a high socio-economic status ($M=12.25, SD=5.53$), than when they were from a low socio-economic status ($M=10.5, SD=8.89$). When the male defendants showed no emotional effect by the situation, participants gave the defendants less harsh sentences, especially when they were from a low socio-economic status ($M=8.33, SD=5.01$), than when they were from a high socio-economic background ($M=9.08, SD=3.84$). 1).

Female defendants received longer sentences from participants when they were from a low socio-economic status ($M=11.38, SD= 7.53$). Participants gave female defendants from a high socio-economic status less harsh sentences ($M=8.55, SD=6.07$).

Participants also gave female defendants longer sentences when they showed no emotional effect by the situation, especially when they were from a low socio-economic status ($M=13.9, SD=6.07$), than when they were from a high socio-economic status ($M=10.33, SD=6.7$). When the female defendants appeared to be upset or distressed by the situation, participants gave the defendants much less harsh sentences, especially when they were from a high socio-economic status ($M=5, SD=2.6$), than when they were from a low socio-economic status ($M=7.17, SD=9.07$).

Confidence Rating

To analyse the rating participants gave as to how confident they were in their decisions, 2 (Gender) x 2 (Socio-economic status) x 2 (Emotional State)

between subjects ANOVA was used. The analysis revealed the main effect of whether the gender of the defendant was male or female, was not significant ($F(1, 38) = .051, p = .823, \text{partial } \eta^2 = .001$) (Illustration 6).

The main effect of whether the socio-economic status (SES) of the defendant was low or high, was also not significant ($F(1, 38) = .134, p = .716, \text{partial } \eta^2 = .004$). The main effect of whether the emotional state of the defendant was upset/distressed or showed no emotional effect, was not significant ($F(1,38) = 2.048, p = .161, \text{partial } \eta^2 = .051$).

There was no significant interaction between the factor of gender and the factor of socio-economic status ($F(1, 38) = .031, p = .860, \text{partial } \eta^2 = .001$). There was no significant interaction between the factor of gender and the factor of emotional state ($F(1, 38) = .423, p = .519, \text{partial } \eta^2 = .011$).

There was no significant interaction between the factor of socio-economic status and the factor of emotional state ($F(1, 38) = .087, p = .769, \text{partial } \eta^2 = .002$). There was no significant interaction between the factor of gender, the factor of socio-economic status and the factor of emotional state ($F(1, 38) = .017, p = .897, \text{partial } \eta^2 = .000$).

On average, participants appear to be only relatively confident in their decisions. When comparing the means, participant's rating of how confident they were in their decisions, were relatively congruent, when the defendant was male ($M=5.17, SD=2.19$), than when the defendant was female ($M=5.39, SD=2.39$).

There was also little difference in how confident participants were in their decisions, when the defendant was from a low socio-economic status ($M=5.39, SD=2.10$), than when the defendant was from a high socio-economic status ($M=5.17, SD=2.46$). Finally, there was also little difference in their confidence of their decisions, when the defendant appeared to be distressed or upset ($M=4.78, SD=1.78$), than when the defendant showed no emotional effect by the situation ($M=5.78, SD=2.61$).

Likeability Rating

To analyse the rating participants gave as to how likable they found the defendant, 2 (Gender) x 2 (Socio-economic status) x 2 (Emotional State) between subjects ANOVA was used. The analysis revealed the main effect of whether the gender of the defendant was male or female, was not significant ($F(1, 38) = .043, p = .838, \text{partial } \eta^2 = .001$) (Illustration 7).

The main effect of whether the socio-economic status (SES) of the defendant was low or high, was not significant ($F(1, 38) = 1.801, p = .188, \text{partial } \eta^2 = .045$). The main effect of whether the emotional state of the defendant was upset/distressed or showed no emotional effect, was not significant ($F(1,38) = 1.535, p$

=.223, partial η^2 =.039).

There was no significant interaction between the factor of gender and the factor of socio-economic status ($F(1, 38) = 2.293$, $p = .138$, partial η^2 =.057). A significant interaction was found between the factor of gender and the factor of emotional state ($F(1, 38) = 4.122$, $p < 0.05$, partial η^2 =.098).

There was no significant interaction between the factor of socio-economic status and the factor of emotional state ($F(1, 38) = .019$, $p = .891$, partial η^2 =.000). There was no significant interaction between the factor of gender, the factor of socio-economic status and the factor of emotional state ($F(1, 38) = 1.801$, $p = .118$, partial η^2 =.045).

Participants gave male defendants higher likeability ratings when the defendant was from a low socio-economic status ($M=5$, $SD=1.9$), than when they were from a high socio-economic status ($M=3.67$, $SD=1.37$).

Participants also gave female defendants higher likeability ratings when the defendant was from a low socio-economic status, and appeared to be upset or distressed by the situation ($M=5.5$, $SD=.837$), than when they showed no emotional effect by the situation ($M=3.33$, $SD=1.37$). Participants also gave female defendants higher likeability ratings when the defendant was from a high socio-economic status, and appeared to be upset or distressed by the situation ($M=5$, $SD=1.41$), than when they showed no emotional effect by the situation ($M=4$, $SD=2.37$). (Illustration 8).

Trustworthy Rating

To analyse the rating participants gave as to how trustworthy they found the defendant, 2 (Gender) x 2 (Socio-economic status) x 2 (Emotional State) between subjects ANOVA was used. The analysis revealed the main effect of whether the gender of the defendant was male or female, was not significant ($F(1, 38) = .991$, $p = .326$, partial η^2 =.025) (Illustrations 9 & 10).

The main effect of whether the socio-economic status (SES) of the defendant was low or high, was not significant ($F(1, 38) = .159$, $p = .693$, partial η^2 =.004). The main effect of whether the emotional state of the defendant was upset/distressed or showed no emotional effect, was significant ($F(1,38) = 4.797$, $p < 0.05$, partial η^2 =.112).

A significant interaction was found between the factor of gender and the factor of socio-economic status ($F(1, 38) = 10.925$, $p < 0.05$, partial η^2 =.223). A significant interaction was also found between the factor of gender and the factor of emotional state ($F(1, 38) = 7.333$, $p < 0.05$, partial η^2 =.162).

There was no significant interaction between the factor of socio-economic status and the factor of emotional

state ($F(1, 38) = 1.156$, $p = .289$, partial η^2 =.030). There was no significant interaction between the factor of gender, the factor of socio-economic status and the factor of emotional state ($F(1, 38) = .159$, $p = .693$, partial η^2 =.004).

Comparing the means, revealed on average that participants found the male defendants less trustworthy ($M=3.83$, $SD=1.37$), than the female defendants ($M=4.22$, $SD=1.95$). It also revealed that on average the participants found the defendants from a high socio-economic status less trustworthy ($M=3.91$, $SD=1.81$), than defendants from a low socio-economic status ($M=4.13$, $SD=1.58$).

On average participants also found the defendants who showed no emotional effect by the situation less trustworthy ($M=3.57$, $SD=1.73$), than defendants who appeared to be upset or distressed by the situation ($M=4.48$, $SD=1.53$).

The analysis also revealed that participants found male defendants, who were from a high socio-economic status and showed no emotion, less trustworthy ($M=3.33$, $SD=1.63$), than female defendants, who were from a high socio-economic status, and showed no emotion ($M=4.17$, $SD=2.48$). These results can be seen in table 2.

The results of the HADS showed that the study did not cause participants any more anxiety than normal, it also shows that participant's decisions were not affected by feelings of anxiety. Participants produced relatively low anxiety scores on average ($M=5.21$), on the scale which at its highest is 21.

Discussion & Conclusions

One of the findings of this study was that participants appeared to judge the male defendants slightly more harshly than the female defendants, with male defendants receiving 23% 'guilty of murder' verdicts, compared with female defendants who received 20% 'guilty of murder' verdicts. However, the female defendants received more 'guilty of manslaughter' verdicts, with 28%, than male defendants, with 26%.

Further, female defendants are evaluated more leniently by the jury than male defendants. This finding has also been seen by Quas, Bottoms, Haegerich and Nysee-Carris (2002) and is supported by the findings of Forsterlee, Fox, Forsterlee and Ho (2004), and Nunez, Dahl, Tang and Jensen (2007) who found that male and female defendants are treated differently when it comes to decision making in the criminal justice system.

Although research conducted over the past twenty

years has not provided definitive answers surrounding gender bias in the courtroom, it has been suggested that females receive preferential treatment due to the amount and severity of offences committed by males and their high re-offending rate.

Emotional effect is an additional factor that was found to influence a juror's verdict. In this study, defendants who appeared to be upset or distressed by the situation received more 'not guilty' verdicts, (69%), than the defendants whom did not seem to be affected by the situation, (31%). Further, the defendant whom gave the impression of being distressed or upset by the situation received a shorter sentence than defendants who showed no emotional effect by the situation.

Emotional effect on behalf of the defendant resulted in 17% of 'guilty of murder' verdicts and '26% of 'guilty of manslaughter' verdict. No emotional effect displayed by the defendant saw 26% 'guilty of murder' verdict and 26% 'guilty of manslaughter' verdict. Results were also supported by Heath, Grannemann and Peacock (2004) who found that defendants displaying a low level of emotion received more guilty verdicts and longer sentences than defendants who showed a high level of emotion. Similar results were found by Robinson, Smith-Lovin and Tsoudis (1994) concerning remorse.

Longer sentences were given to defendants who appeared to show no signs of remorse than those who appeared to show remorse. Spackman, Belcher and Hansen (2002) suggested that jurors take into consideration the defendant's history of violence with the victim, the particular emotion experienced, whether the defendant dwelt upon the feelings associated with their emotion and whether the defendant intended the actions associated with their emotion when making their verdict.

These results clearly indicate that our decisions are based on our emotions as well as logic, supporting Damasio's (1994) somatic markers hypothesis. Damasio proposed that emotions are part of homeostatic regulation and are rooted in reward and punishment mechanisms which are involved in decision making, (usually non-consciously), has been found as a contributor to a jury's verdict.

The third factor under investigation in this study was socio-economic status. As identified by the Chicago school of thought (the ecological theory), social and economic status is strongly correlated with crime, specifically serious crime such as robbery and murder. In one sense this made crime acceptable by those who come from a disadvantaged area; we now expect it. Our results support this, with defendants described as having a low socio-economic status being found not

guilty than defendants described as having a high socio-economic status.

77% of defendants found not guilty were from a low socio-economic status, with only 23% being from a high socio-economic status. Additionally, those with a high socio-economic status, received harsher sentences than those having a low socio-economic status. Defendants from a high socio-economic status received 26% 'guilty of murder' verdicts, and 28% 'guilty of manslaughter verdicts, whereas defendants from a low socio-economic status received only 17% 'guilty of murder' verdicts, and 26% 'guilty of manslaughter verdicts.

Overall, these results suggest that defendants who are male, from a high socio-economic status and showed no emotional effect by the situation, received harsher verdicts, than defendants who are female, from a low socio-economic status, and appeared to be upset or distressed by the situation.

Sentencing

When it came to deciding on a suitable sentence for a defendant, a variety of results were observed. Firstly, there was a significant interaction between gender and emotional state. However on their own, gender and emotional state did not produce a significant result. This is not to say that there was no form of bias related to gender and emotional state. Whereas male defendants received longer sentences when they were described as being upset or distressed by the situation, female defendants received shorter sentences. When female defendants showed no emotional effect they received longer sentences whereas males received shorter sentences.

Secondly, males received longer sentences when they were described as coming from a high socio-economic status than when they were described as coming from a low socio-economic status. Low socio-economic status combined with no emotional effect resulted in shorter sentences received by male defendants.

Female defendants, on the other hand, who showed no emotional effect by the situation received longer sentences than when the defendant appeared upset or distressed by the situation, particularly when they have a low socio-economic status. This is because it is generally expected that males coming from a low socio-economic status will commit crime and have no feelings about it, whereas females are more bound by their feelings and emotions and are stereotyped to not commit crime.

Results support Voss and Van Dyke's (2001) study, which found that the emotional state of a defendant may influence a juror's decision. Heath's (2009) study found that a low level of emotion from the defendant lead jurors to the impression they were guilty. It is

likely that this is because they did not include socio-economic status or gender into the equation as ours did. Espinoza and Willis-Esqueda (2008) study which looked at a defendant's socio-economic status found that it is a significant contributor in a juror's decision-making.

These results suggest male defendants and female defendants influence a juror's decision in very different ways. Male defendants from a high socio-economic status, and who appear to be upset or distressed by the situation receive a harsher sentence, and females who are from a low socio-economic status and show no emotional effect by the situation receive a harsher sentence.

Confidence and likeability ratings

No significant results were found between participants' verdict and their confidence level. However, there was a significant interaction between gender and emotional state related to the defendant's likeability. This suggests that portrayal of the correct stereotype to ones gender increases their likeability rating. Further investigation into what makes a defendant likable is needed.

Our results suggest that defendants (both males and females), described as coming from a low socio-economic status are more likeable than those from high socio-economic status. Once again, this can be related to the stereotype we have with social and economic class. Low socio-economic status with no emotional effect from males and emotional effect from females further shortened sentence length and therefore suggests a likeability factor to these particular defendants. Additionally, females from a high socio-economic status were more likable, but this did not influence sentence length as low socio-economic females did. This suggests that females, generally, are more likeable than males.

Trustworthiness

The ratings of trustworthiness given to defendants are the most interesting results from this study. There were three significant findings. Firstly, a significant main effect was found with emotional state when looking at trustworthiness. Secondly, a significant interaction was found between gender and economic status. Thirdly, a significant interaction was found between gender and emotional state when looking at trustworthiness.

Through comparing the means, it appears that male defendants are less trustworthy than female defendants. This supports the finding of McCoy and Gray (2007), which suggests that jurors see female defendants as more believable than male defendants. The results also suggest that participants found defendants described as coming from a high

socio-economic status less trustworthy than defendants described as coming from a low socio-economic status.

Participants also appeared to find defendants who showed no emotional effect by the situation less trustworthy than those described as appearing to be upset or distressed by the situation. These findings again suggest that all three factors may have influenced participants' decisions. The results of the HADS suggest that the study caused no unnecessary anxiety to participants and therefore, can be removed as a confounding variable.

Study Evaluation

The fact that gender, emotional state and socio-economic status is influential in the courtroom has been largely ignored in empirical research on jury decision-making. This lack of awareness may reflect the difficulty in recreating a courtroom scenario, mainly due to the difficulties involved in measurement. A questionnaire as the measurement tool in this study is likely to of been affected by response bias and experimenter bias.

By using closed ended questions and answering individually, true representation of a juror's decision making, where discussion takes place, was not reached. It is likely that these confounding variables led the participant not to take the case seriously and is the reason why significant interactions were not found in this study, where they have been seen in other research. However, we must take into consideration that it is hard to provide a case scenario that does not influence a participant's verdict directly.

A different sample, environment and experiment layout may rectify this weakness. With some significant results being found, there is a need to increase the sample size and widen its demographic to investigate the strength of these findings. Despite these weaknesses, our study has provided interesting results into juror's decision making. Gender, socio-economic status and emotional state are likely influential factors, not only into a jury's verdict, but also sentence length and personal opinion of the defendant.

Hypotheses

Hypthesis 1: No significant difference was found between each jury member verdict depending on the gender, socio-economic status and emotional state of the defendant. Therefore, we reject this hypothesis.

Hypothesis 2: Male defendants were convicted of murder more than female defendants and received harsher sentences. We therefore, accept this hypothesis.

Hypothesis 3: Female defendants who showed no emotional affect by the event were convicted of

murder more often than male defendants who were described as appearing to be upset or distressed by the situation received longer sentences, than those who showed no emotional effect by the situation. Therefore, this hypothesis cannot be fully rejected.

Null Hypothesis: No significant difference in the verdicts for defendants of different gender, socio-economic status and emotional state were found, and therefore can be may be rejected.

Future research

It would be interesting to see if creating a more realistic environment,

by presenting a case to a group of mock jurors and asking them to discuss the case and come to a decision, would influence their decisions differently. It would also be interesting to see if group discussion increased response bias as social processes would be underway, such as a need for conformity.

Another factor which could be looked at, which may produce interesting results, is the type of crime, for example, murder, child abuse and crimes of passion. As have been recorded by numerous investigations, type of crime is influential in juror's verdict, with the most violent of crimes resulting in a harsher sentence and a negative appraisal of the defendant, specifically if they do not fit the stereotype. One way of doing this is by manipulating the factors, (gender, socio-economic state and emotional state), in different crime scenarios.

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Illustrations

Illustration 1

Example script (Case 1 = female defendant, wealthy, no emotion)

The victim was found dead at the restaurant where they worked, at 7am on Wednesday 16th December 2009. The police determined the victims death was due to a fire at restaurant which got out of control as the fire extinguishers' were missing and the sprinkler were turned off.

Ellen Field who is the owner and manager of the restaurant where the victim worked has been charged with the victims' murder. The extinguishers were found in the boot of her car with her fingerprints on. Another of Mrs Field's employees has told police that they informed Mrs Field on the day of the murder, that the victim was thought to be having an affair with her husband.

Mrs Fields states that she was replacing the extinguishers as they were faulty and doesn't know why the sprinklers were turned off. No fingerprints were found on the switch for the sprinklers.

Mrs Field who is from a wealthy family, and took over the restaurant from her father 5 years

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ago has pleaded 'not guilty', and has showed no emotional effect by her employee's death.

Illustration 2

Participant verdict questionnaire

Participant verdict questionnaire

Which of the following is the most likely diagnosis?

Multiple sclerosis

Guillain-Barre syndrome

Myasthenia

Please select the most likely pathogen that caused the disease.

JC virus

Herpes

Streptococcus

Influenza

HIV

Please select the most likely type of immune response.

<input type="radio"/> Humoral	<input type="radio"/> Cellular	<input type="radio"/> Mixed
<input type="radio"/> Innate	<input type="radio"/> Adaptive	<input type="radio"/> Both

Please select the most likely type of immune response.

<input type="radio"/> Innate	<input type="radio"/> Adaptive	<input type="radio"/> Both
<input type="radio"/> Humoral	<input type="radio"/> Cellular	<input type="radio"/> Mixed

Illustration 3

Mean trustworthiness ratings

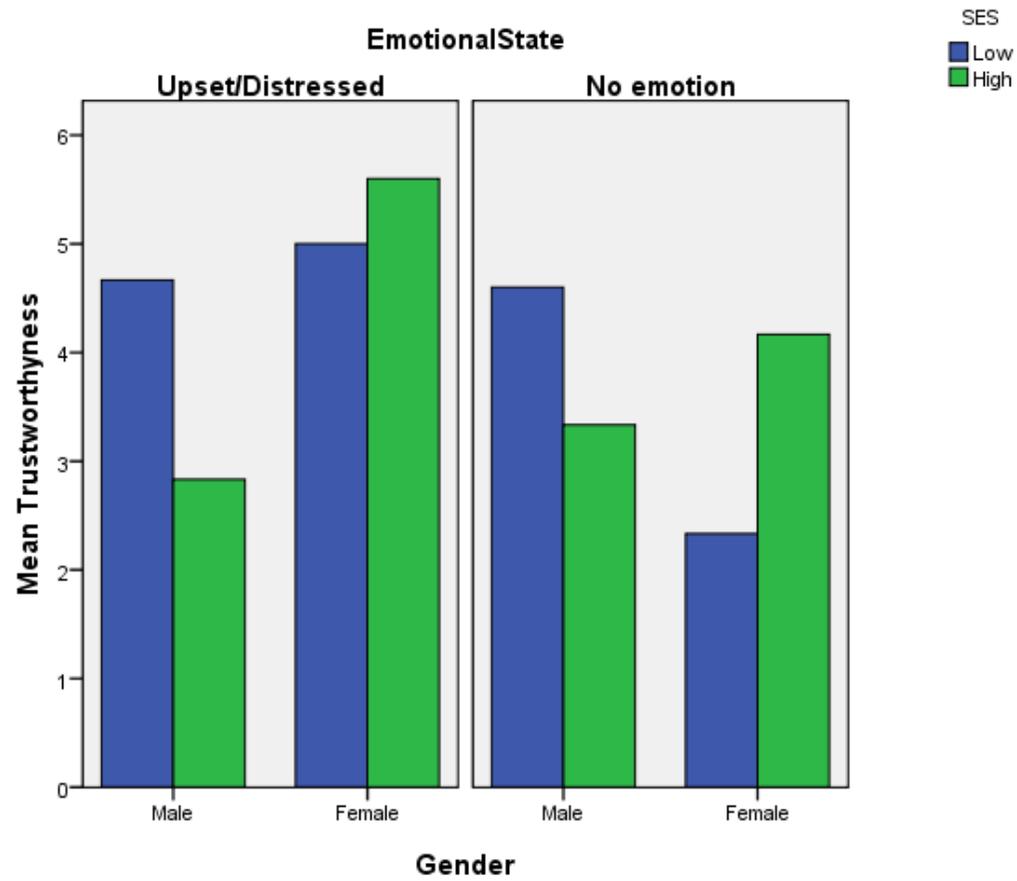


Illustration 4

Mean confidence ratings

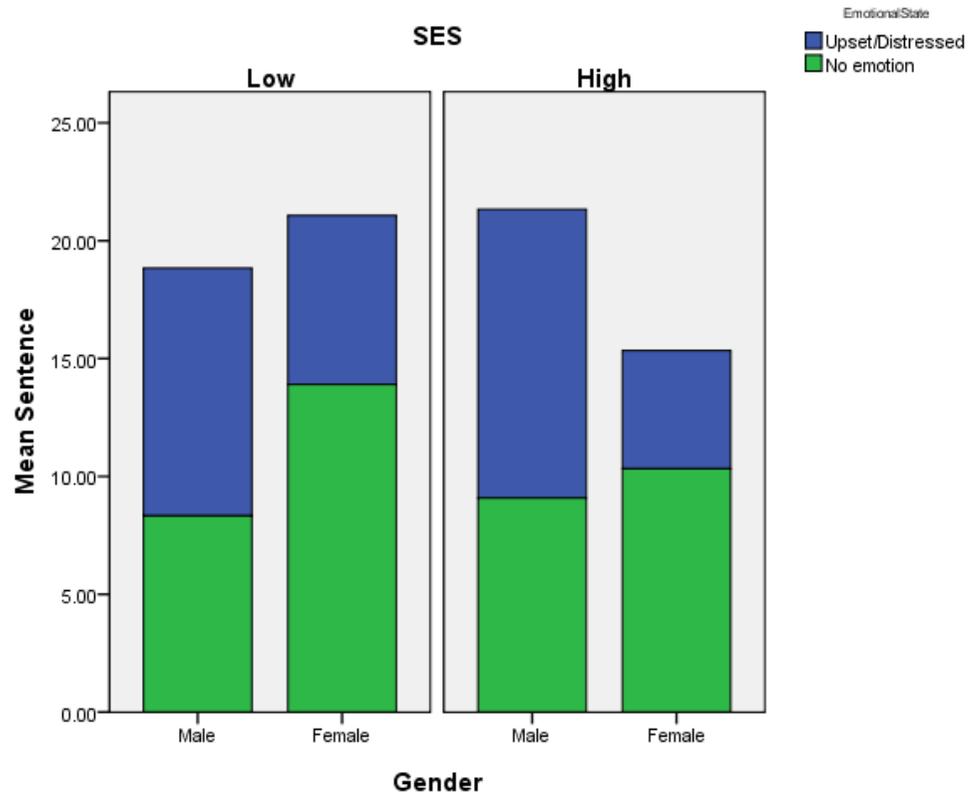


Illustration 5

Tests of between-subjects effects on sentence ratings

Tests of Between-Subjects Effects

Dependent Variable: Sentence

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	220.121 ^a	7	31.446	.862	.548	.183
Intercept	2883.174	1	2883.174	79.035	.000	.745
Gender	6.978	1	6.978	.191	.665	.007
SES	5.142	1	5.142	.141	.710	.005
EmotionalState	22.297	1	22.297	.611	.441	.022
Gender * SES	33.338	1	33.338	.914	.348	.033
Gender * EmotionalState	148.898	1	148.898	4.082	.053	.131

Illustration 6

Tests of between-subjects effects on confidence ratings

Tests of Between-Subjects Effects

Dependent Variable: ConfidenceRating

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	15.759 ^a	7	2.251	.397	.898	.068
Intercept	1270.020	1	1270.020	223.879	.000	.855
SES	.763	1	.763	.134	.716	.004
Gender	.287	1	.287	.051	.823	.001
EmotionalState	11.620	1	11.620	2.048	.161	.051
SES * Gender	.179	1	.179	.031	.860	.001
SES * EmotionalState	.496	1	.496	.087	.769	.002
Gender *	2.401	1	2.401	.423	.519	.011

Illustration 7

Tests of between-subjects effects on likeability ratings

Tests of Between-Subjects Effects

Dependent Variable:Likeability

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	30.851 ^a	7	4.407	1.644	.153	.232
Intercept	888.384	1	888.384	331.400	.000	.897
Gender	.114	1	.114	.043	.838	.001
SES	4.829	1	4.829	1.801	.188	.045
EmotionalState	4.114	1	4.114	1.535	.223	.039
Gender * SES	6.146	1	6.146	2.293	.138	.057
Gender * EmotionalState	11.051	1	11.051	4.122	.049	.098

Illustration 8

Mean liekability ratings

Gender				
	Male		Female	
	Low SES	High SES	Low SES	High SES
Upset/Distressed	4.50	3.83	5.50	5.00
No Emotional Effect	5.60	3.50	3.33	4.00
Total	5.00	3.67	4.42	4.45

Illustration 9

Mean trustworthy ratings

Gender				
	Male		Female	
	Low SES	High SES	Low SES	High SES
Upset/Distressed	4.67	2.83	5.00	5.60
No Emotional Effect	4.60	3.33	2.33	4.17
Total	4.64	3.08	3.67	4.82

Illustration 10

Tests of between-subjects effects on trustworthiness ratings

Tests of Between-Subjects Effects

Dependent Variable: Trustworthiness

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	50.912 ^a	7	7.273	3.633	.004	.401
Intercept	756.013	1	756.013	377.675	.000	.909
Gender	1.984	1	1.984	.991	.326	.025
SES	.317	1	.317	.159	.693	.004
EmotionalState	9.603	1	9.603	4.797	.035	.112
Gender * SES	21.870	1	21.870	10.925	.002	.223
Gender * EmotionalState	14.679	1	14.679	7.333	.010	.162
SES * EmotionalState	2.314	1	2.314	1.156	.289	.030

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