

Western Oregon University

Digital Commons@WOU

Honors Senior Theses/Projects

Student Scholarship

6-2022

Nullification of The CSI Effect Through Exposure at Critical Points in The Trial Process

Amanda M. Mooney

Follow this and additional works at: https://digitalcommons.wou.edu/honors_theses

Recommended Citation

Mooney, Amanda M., "Nullification of The CSI Effect Through Exposure at Critical Points in The Trial Process" (2022). *Honors Senior Theses/Projects*. 277.
https://digitalcommons.wou.edu/honors_theses/277

This Undergraduate Honors Thesis/Project is brought to you for free and open access by the Student Scholarship at Digital Commons@WOU. It has been accepted for inclusion in Honors Senior Theses/Projects by an authorized administrator of Digital Commons@WOU. For more information, please contact digitalcommons@wou.edu, kundas@mail.wou.edu, bakersc@mail.wou.edu.

Nullification of The CSI Effect Through Exposure at Critical Points in The Trial Process

By
Amanda M. Mooney

An Honors Thesis Submitted in Partial Fulfillment of the
Requirements for Graduation from the
Western Oregon University Honors Program

Dr. Misty Weitzel
Thesis Advisor

Dr. Gavin Keulks,
Honors Program Director

July 2022

ACKNOWLEDGEMENTS

Throughout the writing of this thesis, I have received a great deal of support and assistance. I would first like to thank my thesis advisor, Dr. Misty Weitzel, for her invaluable advice, support, and feedback. I would also like to thank Dr. Gavin Keulks for his endless support and encouragement in the completion of my thesis. Lastly, I would like to thank my family, my mom Gwen, my dad Jason, and my sister Ashley for their unconditional support during this stressful process. I would also like to make a special mention to all my peers and colleagues who aided in my thesis process from proofreading and sound boarding my ideas to ultimately participating in my study.

Table of Contents

ABSTRACT.....3

LITERATURE REVIEW.....4

METHODS/PROCESSES.....8

RESULTS... ..10

DISCUSSION.....11

REFERENCES.....14

FIGURES.....16

APPENDICES.....18

Abstract

The present study sought to determine how briefing a jury on the CSI Effect would influence the verdict. It was hypothesized that those briefed on the CSI Effect would find the defendant guilty, while those not briefed would find the defendant innocent. One hundred sixty-three undergraduate students were recruited via SONA and were compensated with course extra credit for their participation. Participants were randomly assigned to one of the three conditions (no briefing, briefing before forensic testimony, and jury instructions briefing). A one-way ANOVA test was run and no significant results were found between the three conditions, ($f(162)=0.5954$), n.s.. These results suggest that there is no nullification effect to briefing a jury on the CSI Effect; however, due to the many limitations of the study an effect may be present that was not found in the current study.

Nullification of The CSI Effect Through Exposure at Critical Points in The Trial Process

Literature Review

Imagine coming home from a stressful day at work, grabbing some food maybe a drink, and turning on the television. What is playing? The most entertaining crime drama; the show begins and finally relaxation. While relaxing, the show presents interesting cases, fascinating technology, and, although a bit unrealistic, the entertaining methods used in solving the case. This is the nightly routine of millions of Americans, in fact in 2014-2015 almost 29% of shows airing on television were crime dramas. *NCIS* and *Law and Order: SVU* are the longest running tv dramas still airing and are both extremely popular crime dramas (Porter, 2020). These crime dramas may provide hours of entertainment, but they may also be creating an unconscious bias called the CSI Effect. This paper will analyze past research surrounding the CSI Effect, as well as determine if briefing a jury on the CSI Effect influences the verdict of the case.

While relaxing to a crime drama is a popular pass time in American culture, the shows are affecting the real world in ways that researchers are just beginning to comprehend. Crime dramas are influencing the criminal justice system, through what has become known as the CSI Effect. The CSI Effect is the term used to describe the high expectations jurors have regarding forensic evidence from their crime drama viewing (Cole, 2013). As a result of the CSI Effect, cases with a strong forensic

science base are tried easier and faster in court, while cases without a forensics foundation are harder and take longer to try (Robbers, 2008).

The CSI Effect is similar to other biases in that priming is an effective way to highlight the prevalence and strength of the bias. Lodge and Zloteanu (2020) showed that priming with CSI information led to the jury preferring cases with forensic evidence and particularly found hair fibers to be the most convincing. That is why the order in which information is delivered in a courtroom is so important to the trial process. If the jury were to hear about how important forensic evidence was prior to hearing any forensic expert testimony, they may dismiss other aspects of the case.

Knowing that jurors may be potentially biased surrounding forensic evidence, defense attorneys may advise their client to take on a bench trial rather than a jury trial. This would mean that only the judge would hear the arguments and then decide the verdict, no other opinion would matter. Granados (2017) ran two mock trials in which the jury was presented the case only and the judge was presented the case and a briefing on the CSI Effect; those in the jury placed more weight on forensic evidence than the judge even with the verdicts being the same.

The modern juror is one who is not influenced by the shows they watch, but instead by the mass media and pop culture demands for scientific evidence. If it is possible for the test to be ran, they expect the test was run and they want the results; regardless of how they influence the case. This juror is the future of the criminal justice system, they are no longer satisfied with circumstantial evidence and high probability of guilt. They believe the technology exists, and without the evidence of

those tests then the jury will more and more find that there is reasonable doubt (Shelton, 2010).

One possible explanation for the CSI Effect is that those who are more strongly affected also have a hard time differentiating between fiction and reality. By taking a high perceived realism score in conjunction with large amounts of crime viewing, individuals are more likely to experience the CSI Effect. The degree to which the viewer believes the show is an accurate representation of the criminal justice system, the more likely they are to have heightened expectations of forensic evidence in the courtroom (Maeder & Corbett, 2015).

The CSI Effect is notably limited when concerning DNA evidence. This could be because DNA is considered to be the most convincing piece of evidence, and those that watch crime shows have an accurate understanding that DNA is unique to one person and if their DNA is present then most reasonable doubt disappears. Klentz et al (2020) found almost no evidence of CSI Effect interference in the juror's decision making when cases were heavily DNA dependent.

Generally, people who are affected by a bias are unaware they are engaging in biased behavior. However, with the CSI Effect those who are heavy crime show watchers are aware of the bias and believe it exists. While the general population, who are not crime show watchers, are unaware the bias exists but when notified strongly believe in its effects (Hayes & Levett, 2013).

In China the CSI Effect was extensively studied. Those that watch crime dramas believe in the evidence more than those who do not, but their overall decision

making remains unaffected (Hui, 2017). This is interesting to contrast against the other studies which took place in, mostly, the USA or the UK. Those of a westernized culture seem to be more affected by the shows consumed and allow their realities to shift to accommodate their new expectations. While the eastern cultures keep their personal viewing habits separate from their legal analysis.

While more and more research is being added to the field every day, there remains a gap in finding a method to nullify the CSI Effect. The current approach is more aimed at understanding how television viewing of crime dramas affects the individual rather than the criminal justice system as a whole. This study aims to identify the best time to brief the jury on the CSI: Effect, that is during a trial, or if briefing them at all, to minimize the effects as much as possible. The participants were divided into three groups: no briefing (as seen in a typical trial), a briefing before hearing forensic evidence, or a briefing during the jury instructions.

It is hypothesized that those who are exposed to the CSI Effect will have less evidence of bias in their verdict by choosing whether the defendant is guilty or innocent. The participants will read an edited case study summarized by McEwen and Conners (2013), called "Defendant #9". The source describes a court case where a man was found guilty after pleading innocent and having minor confirmatory forensic evidence. The participants in the source were briefed on the CSI Effect but that was not a key point in their trial, merely mentioned by the testifying forensic scientist. If my hypothesis is correct, those in my control who are not exposed to the CSI Effect will find the defendant innocent and those in my experimental groups will find the

defendant guilty. During the court proceedings of “Defendant #9”, the testifying forensic scientist briefly mentioned the CSI Effect to the jury to explain the lack of forensic evidence in the case. The current study will expand on this brief mention of the CSI Effect by expecting those who were exposed to the CSI Effect to find the defendant guilty, as happened in the original case, and those who were not exposed to give an innocent verdict.

Methods

Participants

One hundred sixty-three participants between the ages of 19 and 35 were recruited from the Western Oregon University Psychology Department. Eighty percent were female and 20% were male. Sixty-six percent of the participants were white, 6% were African American, 3% were Asian, 20% were Hispanic, 1% were Native American, 2% were Pacific Islander, and 2% were self-described as “mixed”. All participants were psychology majors or minors. Participants were found through the SONA system and awarded two extra credit points for their participation in the study. SONA is the research recruitment platform utilized by the psychology department to award extra credit to undergraduates taking a psychology class. Any student registered on the SONA platform through their enrollment in a WOU psychology course, had access to this study and could choose whether they would like to participate. The participants were divided equally into three groups and randomly assigned a condition; each of the three groups were given the same case study to read,

with briefings at different points of exposure to the case study. Each participant was asked to declare an innocent or guilty verdict based on the evidence given, just like a real jury member. Participants were randomly assigned to their condition by a computer algorithm (1st person to group 1, 2nd person to group 2, 3rd person to group 3, fourth person to group 1, etc.).

Materials

The participant's degree of participation in the CSI Effect bias will be measured by the verdict they deliver after reading "Defendant #9" (Appendix A) and being exposed to their testing condition. The case study summarizes a trial about a defendant who pled innocent and was tried with little forensic evidence assigning blame to the defendant. The briefing material consists of a definition of the CSI Effect and a short explanation about how biases can affect judgement (Appendices B and C).

Procedure

Due to the use of human participants, Western Oregon University's Institutional Review Board (IRB) approval was obtained prior to data collection. Per the federal regulations, the study was approved under exemption category number two, IRB #1174. Participants were recruited and exposed to the experiment completely digitally through SONA. After choosing to partake in the study, the participant signed an informed consent page and then filled out the demographic questionnaire. The participants were then told they were behaving as jury members for the following case, "Defendant #9". Group 1 read the case and was asked to

deliver a verdict. Group 2 was asked to read the case and before reading the evidence section was briefed on the CSI Effect, before continuing to the evidence and being asked to deliver a verdict. Group 3 read the case and evidence and was then briefed on the CSI Effect before being asked to deliver a verdict. All verdicts were delivered on a 1-5 Likert Scale, 1 being innocent to 5 guilty. After finishing the study, the participants were given a notice of confidentiality and a debriefing sheet which informed them they participated in a study concerning the CSI Effect and ways to possibly nullify its effects. To test the hypothesis that briefing the jury on the CSI Effect would nullify its effects, a one-way ANOVA test was performed using SPSS on the different verdicts from the briefing conditions.

Results

There was no significant difference observed between the three briefing conditions (no briefing, briefing before forensic testimony, and jury instructions briefing) ($f(162)=0.5954$), n.s. (Figure 2). However, Figure 1 shows that the verdict groupings do vary between the control group, condition 1, and the two exposure groups; in the control group there is a wide spread of data with no set pattern. This suggests that there was no single narrative amongst the jurors; having a single narrative is critical to a conviction. In the experimental groups the data is grouped closer to a guilty verdict, but also remains more neutral. Figure 2 shows the frequency distribution table which further shows the largely neutral verdict, but also more guilty verdicts amongst conditions 2 and 3.

Discussion

The present study sought to determine whether briefing a jury on the CSI Effect would eliminate the effects of the bias in the courtroom. The briefings were delivered at different critical points in the trial process. The first group received no briefing, the second group was briefed prior to hearing forensic testimony, and the last group was briefed during the jury instructions. The analysis did not provide enough information to support the hypothesis that briefings on the CSI Effect nullify its effects. The results showed no statistically significant differences in the verdict between the conditions. However, there were some interesting patterns emerging in the experimental groups compared to the control group as discussed in the results section (Figure 1).

While these results were unexpected, the results indicated that there may be a small effect present. However, there was not enough data to support the hypothesis. This is not uncommon in CSI Effect research; many studies have shown the importance of analyzing the CSI Effect in the courtroom by analyzing the specific conditions in the study but are unable to prove the existence of the CSI Effect. Lodge and Zloteanu (2020) showed the effects of priming with CSI information but had no real results on the existence of the CSI Effect. Maeder and Corbett's (2015) perceived realism scores and CSI Effect research is the closest the field has come to measuring the existence of a CSI Effect.

That does not mean that continued research into the CSI Effect is useless or a lost cause. Its existence is perceived daily in the criminal justice system; the right

research tool has simply not been developed yet, which is why the research must continue. This study showed that an effect may be present, however, the many limitations of this study stunted the full potential.

The primary limitation of this study is the small recruitment pool, and subsequent lack of participants. Using the SONA system allows the population pool to be tightly controlled, however, it severely limits potential exposure to more participants. Another limitation is that it is suspected that not every participant fully read the case study, given the online nature there is no accountability to fully read the study and it is easy to skim and click through the questions. When setting up the study, several people were asked to run through the study to identify any potential problems in participant comprehension, their average time of completion was 20 minutes. When running the official study, the average completion time of the survey was 5 minutes, leaving doubt as to whether each participant actually read through the study and analyzed the evidence. The last major limitation encountered during the study was the inability to have the jury mindset present. During a real trial the jury listens to the arguments and evidence and then retires to deliberate, here the participants read the study and basically rated the defendant's guilt level with no real deliberation or discussion. To continue with the limitations of a jury mindset, the verdict in the present study was delivered on a Likert scale that largely resulted in neutral answers, perhaps if the verdict was delivered on a binary, as in a real trial, the results would have been more significant.

Despite these limitations, the study was still beneficial to the general field of forensic psychology and jury science. This study showed that exposure to the CSI Effect during critical points of the trial process could potentially have an effect if some of the above limitations were addressed. Future research must be done on the exposure to the CSI Effect and the jury verdict with more participants and a more realistic setting. This research will be continued in hopes of addressing the limitations and clarifying the small but non-significant effect witnessed in this study.

References

- Cole, S. A. (2013). A surfeit of science: The “CSI effect” and the media appropriation of the public understanding of science. *Public Understanding of Science*, 24(2), 130-146. <https://doi.org/10.1177/0963662513481294>
- Duke, M. C., & Wood, J. (2012). The CSI effect: The effect of television viewing on juror decision-making. *PsycEXTRA Dataset*. <https://doi.org/10.1037/e669802012-429>
- Granados, M. (2017). The impact of the CSI effect on judges and juries. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 78(2), 1-9.
- Hayes, R. M., & Levett, L. M. (2013). Community members’ perceptions of the CSI Effect. *American Journal of Criminal Justice*, 38(2), 216-235. <https://doi.org/10.1007/s12103-012-9166-2>
- Hui, C. (2017). Examination of the 'CSI effect' on perceptions of scientific and testimonial evidence in a Hong Kong Chinese sample. *International Journal of Offender Therapy and Comparative Criminology*, 61(7), 819-833. <https://doi.org/10.1177/0306624X15611874>
- Klentz, B. A., Winters, G. M., & Chapman, J. E. (2020). The CSI Effect and the impact of DNA evidence on mock jurors and jury deliberations. *Psychology, Crime & Law*, 26(6), 552–570. <https://doi.org/10.1080/1068316X.2019.1708353>
- Lodge, C., & Zloteanu, M. (2020). Jurors' expectations and decision-making: Revisiting the CSI effect. *Bulletin of the British Psychological Society*, 2, 19-

30. https://www.researchgate.net/publication/343230426_Jurors%27_expectations_and_decision-making_Revisiting_the_CSI_effect
- Maeder, E. M., & Corbett, R. (2015). Beyond frequency: Perceived realism and the CSI Effect. *Canadian Journal of Criminology and Criminal Justice*, 57(1), 83-114. <https://doi.org/10.3138/cjccj.2013.e44>
- McEwen, T., & Connors, E. (2013). *Volume III: Forensic Evidence at Murder Trials in Phoenix, Arizona* (244482). Institute for Law and Justice. <https://www.ncjrs.gov/pdffiles1/nij/grants/244482.pdf>
- Porter, R. (2020, June 20). *TV long view: How much network TV depends on cop shows*. Hollywood Reporter | Entertainment News | Hollywood Reporter. <https://www.hollywoodreporter.com/live-feed/heres-how-network-tv-depends-cop-shows-1299504>
- Robbers, M. L. (2008). Blinded by science. *Criminal Justice Policy Review*, 19(1), 84-102. <https://doi.org/10.1177/0887403407305982>
- Shelton, D. E. (2010). Juror expectations for scientific evidence in criminal cases: Perceptions and reality about the csi effect myth. *Thomas M. Cooley Law Review*, 27(1), 1-36. http://works.bepress.com/donald_shelton/19/

Figures

Figure 1. Boxplot showing the estimated marginal means of the verdict, controlling for outliers by removing the singular 1 verdict from conditions 2 and 3 and 3

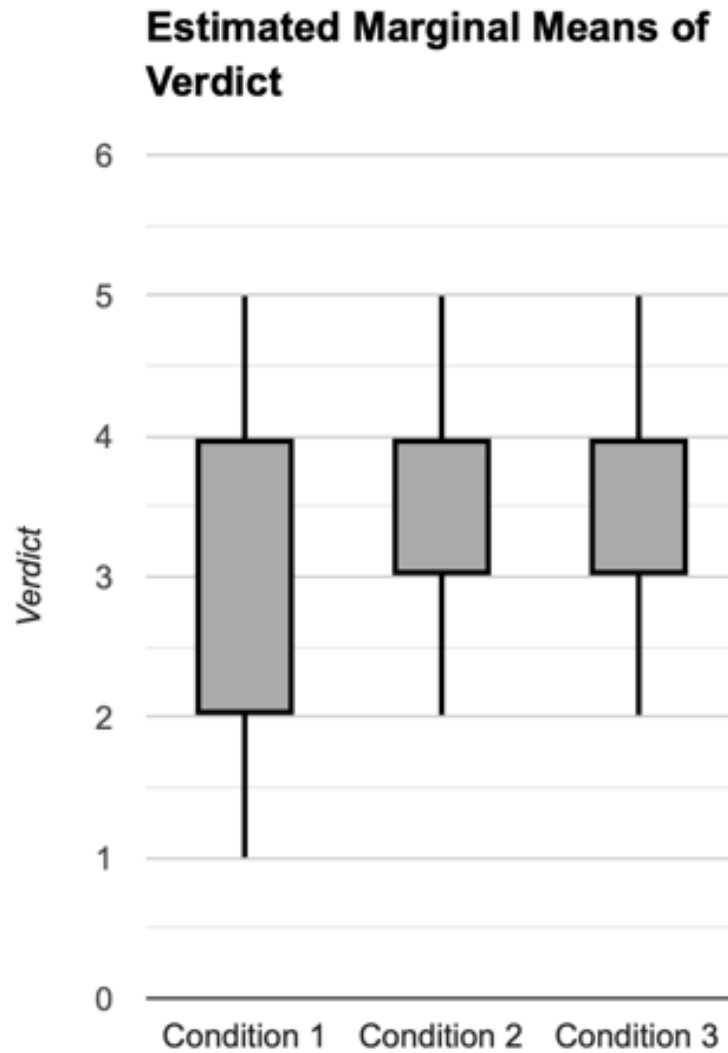


Figure 2. Frequency Distribution Table showing the data distribution, a total of 4 cases were removed due to the participants not delivering a verdict.

Verdict	Condition 1: no briefing of the CSI Effect				Condition 2: CSI Effect briefing before forensic testimony				Condition 3: CSI Effect briefing during jury instructions			
	<i>f</i>	<i>cf</i>	<i>pct</i>	<i>cpct</i>	<i>f</i>	<i>cf</i>	<i>pct</i>	<i>cpct</i>	<i>f</i>	<i>cf</i>	<i>pct</i>	<i>cpct</i>
1	5	5	9.4	9.4	1	1	2	2	1	1	2.5	2.5
2	9	14	17	26.4	9	10	16.9	18.9	10	11	20	22.5
3	18	32	34.1	60.5	18	28	34	52.9	20	31	35.5	58
4	16	48	30.1	90.5	21	49	39.6	92.5	19	50	35.5	93.5
5	5	53	9.4	100	4	53	7.5	100	3	53	6.5	100
Total	<i>n</i> = 53		100%		<i>n</i> = 53		100%		<i>n</i> = 53		100%	
*Removed cases	2				1				1			

Appendices

A. Edited: Defendant # 9 Summary of Case Investigation and Trial

(McEwen & Connors, 2013, p. 68-70)

On September 3, 2004, at approximately 3 a.m., a young man was killed as a result of a shot into his back from a shotgun. The victim was killed outside a trailer located in a fenced commercial yard. Another young man lived in the trailer and was inside at the time of the shooting along with his friend, a young woman. Both were friends with the victim, who was visiting them prior to the shooting. Another friend, "A" (age 17), had been with them earlier and had borrowed the other young woman's car, perhaps without permission, to get something to eat. According to A at trial, the victim became angry with her for taking the car and confronted her outside the trailer. A testified that the victim slapped her as a result of the argument, which greatly upset her.

On September 29, 2004, homicide investigators arrested a suspect for the murder. He never confessed to the killing, and instead provided an alibi witness who testified at trial that they had spent the night together. Other testimony, especially from witnesses at the scene, told a different story about what happened at the trailer. Testimony by A and two of her friends, "B" and "C," is summarized in the following paragraphs.

Sometime after the slapping incident, a car pulled up with B, C and a young man who would later be named the suspect. After the car arrived, B got out of

the car to talk to A, who was still visibly upset. A told B about taking the car, the argument with the victim, and that the victim had slapped her. Both B and A then walked back to the car with C and the suspect. Upon prompting from the suspect, A repeated the details of the incident in which she was slapped. After hearing the story, the suspect got out of the vehicle with a shotgun, walked over to the trailer, and knocked on the door. When the door opened, the suspect asked, “Are you [victim’s name]?” Both men walked outside the trailer where the suspect confronted the victim about the slapping incident. As the victim returned to the trailer, the suspect fired his shotgun twice, hitting the victim in the back with one of the shots. Arriving patrol officers were able to talk briefly to the victim, who could only tell them that a Hispanic male had shot him. There were no eyewitnesses to the actual shooting. The victim’s two friends were inside the trailer at the time of the shooting and did not see the person who knocked on the door. A, B and C were inside the vehicle at the time of the shooting, which was outside their viewing area.

At trial, the following gave testimony:

- Two responding patrol officers and supervising sergeant
- Case agent and two other homicide investigators
- Forensic scientist from DNA section and forensic scientist from ballistics
- Medical examiner
- Spanish interpreter (on telephone calls made by defendant from jail)
- Six witnesses (two for the defense)

Two shotgun shells and a live cartridge were found at the scene, but the shotgun was never located. In addition, homicide investigators found a medical insurance card close to the location where the vehicle apparently parked. After investigation, they determined that the name on the card was C's son. An interview with C led to other witnesses who eventually identified the suspect.

Other incriminating evidence was developed prior to trial. While in jail, the suspect made several telephone calls to friends and relatives in an apparent effort to have them contact witnesses to stop them from testifying at the trial. Because these calls were made from the jail, they were recorded, and portions of the suspect's conversation were introduced at trial.

At trial, the defendant's lawyer provided an alibi defense with a witness who testified that the defendant was with her during the night of the incident and could not have committed the offense. The defendant also took the stand to relay the same information to the jury.

Forensic Evidence at Trial

The forensic scientist testified that the results were "inconclusive" because the DNA profile from the shotgun cartridge had at least three contributors. The defendant could not be included or excluded as a contributor.

A forensic scientist from the ballistics section testified about the shotgun cartridge and casings. He was asked several questions about the operation of a shotgun and how shells are discharged from a shotgun. His main testimony was that the two shells and cartridge had been loaded into the same shotgun. He could not testify further because the shotgun was never found.

During other testimony, the case agent was asked about the results from analysis of other forensic evidence. He provided several results on the efforts of crime lab personnel:

- No latent prints were found on two eyeglass lenses or a soda can from the scene.
- Latent prints from the doors of vehicles at the scene were not useable.
- The medical insurance card was not submitted for latent print analysis because C admitted that the card belonged to her.
- Latent prints from a pellet gun at the scene did not match with the defendant or another suspect in the case.

The case agent also testified that a choice had to be made between the possible presence of biological material on the shotgun shell versus checking for latent prints on the shotgun shells. Both could not be done. The case agent responded to questioning, “You’re more likely to find DNA evidence versus fingerprints on specific items: in this case, the three shotgun shells.”

B. CSI Effect Definition (Cornell University, n.d.)

“A phenomenon reported by prosecutors who claim that television shows based on scientific crime solving have made actual jurors reluctant to vote to convict when, as is typically true, forensic evidence is neither necessary nor available”.

C. Implicit Bias Definition (Ohio State University, 2015)

“Implicit bias refers to the attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner. These biases, which encompass both favorable and unfavorable assessments, are activated involuntarily and without an individual’s awareness or intentional control. Residing deep in the subconscious, these biases are different from known biases that individuals may choose to conceal for the purposes of social and/or political correctness. Rather, implicit biases are not accessible through introspection. The implicit associations we harbor in our subconscious cause us to have feelings and attitudes about other people based on characteristics such as race, ethnicity, age, and appearance. These associations develop over the course of a lifetime beginning at a very early age through exposure to direct and indirect messages. In addition to early life experiences, the media and news programming are often-cited origins of implicit associations”.

D. Likert Scale For Verdict

