The Modification of Jury Instructions to Improve Juror Verdicts and Confession Recognitions in a Criminal Trial

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False confessions are a leading cause of wrongful convictions in the American legal system. Jury instructions have been identified as an effective judicial safeguard in an effort to prevent wrongful convictions and allow jurors to better comprehend confession evidence in the courtroom. The purpose of this study was to determine whether the modification of standard jury instructions would influence juror verdicts, confession identifications, and overall juror decision-making. It was hypothesized that participants given modified jury instructions would have the highest correct verdict determinations and confession recognitions with both the coerced and voluntary trial transcripts. Participants were recruited through Amazon Mechanical Turk, and they were randomly assigned into an experimental group. Participants read a trial transcript and completed a questionnaire. Descriptive statistics were calculated, and logistic regression tests determined statistical significance. The use of modified instructions displayed a statistically significant effect on both verdict determinations and confession transcript were also shown to be statistically significant. The results demonstrated that participants who were given modified jury instructions had the highest percentages of correct verdict determinations and confession recognitions compared to participants who were given standard instructions had the highest percentages of correct verdict determinations and confession recognitions compared to participants who were given modified instructions. Further research should be conducted to maximize the potential of jury instructions and other safeguards in a criminal trial.

Introduction

False confessions are elicited when an individual confesses to a crime that they did not commit, and they are mainly caused by coercive interrogations that occur before the trial¹. False confessions can lead to wrongful convictions, which is when an individual who is convicted of a crime is actually innocent of the charges. Over the past years, juries have been shown to convict defendants in 73-81% of false confession cases, which can be attributed to the inability of jurors to distinguish false confessions from true confessions². Additionally, it was determined that approximately 30% of DNA exoneration cases, which were able to prove wrongful convictions, have involved false confessions³. Currently, there are limited methods that address the issue of juror perceptions of confession evidence in a criminal trial.

During the suspect interrogation, police officers and interrogators often use coercive interrogation techniques that prompt the defendant to falsely confess to the crime. A coerced confession is an involuntary false confession that is elicited due to coercive interrogation techniques. These techniques include maximization, which is when the severity of the crime is exaggerated and the defendant can be confronted with evidence, and minimization, which is when the severity of the crime, have been used in interrogations to elicit confessions⁵. Coercive interrogations can manipulate the existing memories of the defendant, which can cause the testimony of the defendant to be different from what occurred⁶. Interrogators can also prime defendants and influence their thinking. Defendants that are younger or have mental conditions are more vulnerable to these coercive interrogation techniques and false confessions in general⁷. It has also been determined that many cases with proven false confessions entailed interrogations that lasted for long periods of time¹.

Courtrooms have utilized judicial safeguards to assist members of the jury in making their verdicts¹. Although there has not been a large focus on the use of judicial safeguards, especially in the case of false confessions, in the court system, safeguards such as jury instructions and expert testimony have been utilized to help jurors make sound decisions. It has been uncertain whether jurors can evaluate confession evidence, or any evidence presented in the courtroom, effectively⁸. This emphasizes the need for effective judicial safeguards to improve the decision-making of jurors and assist with the recognition of false confessions in trials.

In the United States, citizens at least the age of 18 can serve in the jury if they do not have a disqualifying mental or physical condition, have never been and are not currently convicted of a felony, have lived in the judicial district for at least a year, and are adequately skilled in the English language⁹. In a criminal trial, jurors are responsible for making the final verdict and identifying whether the defendant is guilty or not guilty of the crime. Jurors weigh the testimony and evidence presented by both the prosecution and defense. The verdict is determined based on whether the prosecution has shown that the defendant is guilty beyond a reasonable doubt. In a typical trial, jurors also have a period of jury deliberation in which they have a discussion with other jurors to determine a final verdict¹⁰.

Confession evidence has been identified as one of the most persuasive forms of evidence in the courtroom, and the presence of any confession evidence has impacted juror decisions⁸. When juries and judges do not know the psychological effects of coercive interrogation techniques, confession evidence can heavily influence verdicts. False confessions are only truly determined to be false when DNA evidence is present, the true criminal is discovered, or the defendant physically could not have committed the crime¹¹. Especially considering that jurors do not need judicial expertise to be in the jury box, the inability to differentiate between false and voluntary confessions highlights a significant problem in the courtroom.

Many studies have identified that in the presence of confession evidence, it is more difficult for jurors to determine the veracity of the confession¹. It has also been determined that jurors often focus more on dispositional factors rather than situational factors in a case, increasing the likelihood of a guilty verdict³. It is more difficult for jurors to focus on situational factors that could have caused the defendant to elicit a confession. A study by Jones and Penrod (2017) determined that it is still uncertain whether jury-eligible laypersons can evaluate evidence and questioning in a criminal trial and an interrogation.

Judicial safeguards have been implemented in the courtroom in order to assist jurors in their decision-making, and studies have examined the efficacy of these safeguards. However, much of this research has focused on witness lineups and preventing eyewitness misidentification. One study by Jones et al. (2020) tested the effectiveness of eyewitness instructions to improve juror evaluation of eyewitness evidence, and it was determined that the instructions only assisted participants when eyewitness identifications were of either good or poor quality. However, other

studies demonstrated that the use of judicial safeguards was beneficial. Another study by Modjadidi and Kovera (2018) tested the effects of videotaping a photo-array administration and utilizing expert testimony in an effort to sensitize jurors in the context of eyewitness misidentification, and it was determined that the videotaped administration caused jurors to be less likely to convict the defendant.

There have been limited studies regarding the efficacy of judicial safeguards in the evaluation of confession evidence. One study by Jones et al. (2021) tested how both jury instructions and eyewitness testimony can affect juror decision-making in a false confession trial, and it was determined that instructions made jurors doubt the veracity of both the false confession and the voluntary confession compared to the eyewitness testimony. However, this study identified that juror sensitivity was not seen for either safeguard, identifying the need for further research to be conducted with judicial safeguards and confession evidence. Another study by Jones and Penrod (2017), focused on the ability of judicial instructions to assist jurors in evaluating confession evidence, and it was found that the use of instructions effectively induced sensitivity among jurors. These sources still identified the need for more judicial safeguards to be present in the courtroom, especially those that would be effective in addressing significant aspects of the case, such as confession evidence.

Jury instructions are the most studied judicial safeguard. A study by Dillon et al. (2017) tested the effect of case-specific jury instructions on the ability of jurors to evaluate the reliability of eyewitness misidentifications, and it was found that the jury instructions influenced the decisions and perceptions of participants, but they did not directly influence juror verdicts. More recently, a study by Conklin (2021) applied the use of jury instructions to psychological effects that are also present in the courtroom today. Various biases are very influential in determining juror verdicts, and the study found that utilizing pre-trial jury instructions focusing on hindsight bias was effective in mitigating this cognitive strategy. Another study by Rogers (2021) focused on improving the overall comprehension of jury instructions. It was also determined that jury instructions could also be provided for each part of the case, including preliminary and final instructions.

There still needs to be more research regarding the specific factors that should be included in jury instructions, especially in the context of false confessions. It has been identified that further research should be conducted to increase juror sensitivity with jury instructions and judicial safeguards as a whole. Additionally, studies in the past have not focused on juror confession identifications in cases, and a relationship between verdicts and confession recognition has not been established. Therefore, the proposed inquiry aimed to determine whether condensed and more specific case-related modified jury instructions would be more useful in aiding with juror decision-making and the recognition of false coerced confessions in the trial than standard jury instructions.

The purpose of this study was to determine the effectiveness of modified jury instructions on juror decision-making, specifically in false confession cases. Identifying whether more simplified, case-specific instructions assist in promoting sound juror judgment and recognition of false confessions in the trial is the next step in preventing wrongful convictions because of false confessions. It was hypothesized that participants given access to modified jury instructions contain more simplified definitions and explanations as well as information regarding confession evidence in a trial. Jury-eligible participants were recruited from Amazon Mechanical Turk, and they were randomly assigned into various experimental groups based on confession type (coerced or voluntary) and jury instructions type (modified instructions, standard instructions, or no instructions). Participants read either the false confession present in the trial transcript and completed a questionnaire. Participants determined their overall verdict and identified the type of confession present in the trial transcript they read. The questionnaire responses were exported to Microsoft Excel, where statistical analysis was conducted.

Methods

The survey platform Qualtrics XM was used to create a questionnaire for this study. After the questionnaire was created, a requester account was created on Amazon Mechanical Turk, an online crowdsourcing platform. Amazon Mechanical Turk was utilized by many sources in previous literature to recruit participants². A new human intelligence task (HIT), or project, was created, and 180 participants were requested. To ensure appropriate and quality responses, participants were required to have completed at least 1,000 HITs, have a HIT approval rate of at least 97%, and be located in the United States. Participants were also required to submit a randomized ID that would appear at the end of the questionnaire in order to complete the HIT. Participants were compensated \$0.75 for their participation in the study, which is the same level of compensation many other studies used.

The questionnaire included an informed consent statement and information that ensured participation was voluntary and all responses would be kept anonymous. The questionnaire also included questions that verified the juror-eligibility of participants involved in the study. Participants would then be divided into one of six groups in the study using the randomization feature in Qualtrics XM. Participants in Group 1 read the coerced confession trial transcript with the assistance of modified jury instructions, participants in Group 2 read the coerced confession trial transcript with no jury instructions, participants in Group 3 read the coerced confession trial transcript with no jury instructions, participants in Group 4 read the voluntary confession trial transcript with the assistance of standard jury instructions, and participants in Group 6 read the voluntary confession trial transcript with no jury instructions.

A coerced confession trial transcript and a voluntary confession trial transcript were created, and these were modified transcripts from the studies by Jones et al. (2020) and Jones et al. (2021). In the trial transcript of the current study, the defendant is accused of robbing an individual in the parking lot of a pub. The original trial transcripts included other information pertinent to the conducted studies, such as eyewitness information and expert testimony. For the jury instructions, modified jury instructions were adapted from the study by Jones et. al (2021). The modified jury instructions included a general outline of the trial, important definitions in the trial, and an explanation of interpreting confession evidence. The modified instructions included information about coercive techniques, including maximization and minimization. Overall, the modified jury instructions had much simpler wording than standard jury instructions, and they only included information pertinent to the current case. After reading the trial transcript, participants would then determine their final verdict, and if they were given the assistance of any instructions, they would determine the influence of the jury instructions in deciding the verdict. Participants then answered a set of manipulation check questions to verify that they actually read the trial transcript and understood the basic elements of the trial. Afterward, participants answered questions regarding the interrogation of the defendant. In these questions, interrogation coercion, the fairness of interrogation techniques, and the pressure placed on the defendant were assessed. Finally, participants determined whether the confession in their assigned trial transcript was a coerced or voluntary confession. In the survey settings, reCAPTCHA bot detection was enabled, and the ability for participants to submit multiple submissions was disabled. The questionnaire can be found in Appendix A, the two trial transcripts are located in Appendix B, and the modified and stand

After the HIT was published, responses to the questionnaire were seen in the Qualtrics XM platform. The results were exported from Qualtrics XM to a Microsoft Excel file for data analysis. For each experimental group in the study, the responses that determined the correct verdict were counted. Additionally, the responses that correctly identified the type of confession in the trial transcript were counted for each experimental group. Percentages of correct verdict determinations and correct confession identifications were calculated, and bar graphs were created that displayed these results. Two multinomial logistic regression tests were conducted in Microsoft Excel for each dependent variable (verdict determination and confession identification). Logistic regression tests were also performed in other studies because the dependent variable is dichotomous and categorical⁸. Each independent variable was dummy coded for regression analysis, meaning that each type of instructions and each trial transcript were given the values of "0" and "1." The dependent variable was also dichotomously coded. The means and standard deviations of the other factors of interrogation coercion, fairness of techniques, and pressure placed on the defendant were also determined for each group. The experimental design diagram for this study can be seen in Figure 1.

Results

Table 1 shows the percentages of correct verdict determination and correct confession identification for each of the groups in the study. The correct verdict in the trial transcript for Groups 1, 2, and 3 is "not guilty," and the correct confession type is "coerced." The correct verdict in the trial transcript for Groups 4, 5, and 6 is "guilty," and the correct confession type is "voluntary." It is seen that in Groups 1, 2, and 3 (the groups given the coerced confession trial transcript), Group 1 had higher percentages of correct verdict determination and correct confession identification than Groups 2 and 3. This means that Group 1 with the modified jury instructions had the highest percentages of both correct verdict determination and correct confession identification. It is also seen that in Groups 4, 5, and 6 (the groups given the voluntary confession trial transcript), Group 4 had higher percentages of correct verdict determinations. It is also seen that in Groups 4, 5, and 6 (the groups given the voluntary confession trial transcript), Group 4 had higher percentages of correct verdict determination and correct confession identification than Groups 5 and 6. However, it is seen that Groups 5 and 6 had the same percentage of correct verdict determination. This means that for correct verdict determination, Group 4 with the modified jury instructions had the highest percentage of correct verdict determination. This means that for correct verdict determination, Group 4 with the modified jury instructions had the highest percentage of correct verdict determination. For correct confession identification, Group 4 had the highest percentage, followed by Group 5, and lastly Group 6.

Figures 2 and 3 are bar graphs depicting the data in Table 1. In Figure 2, it is seen that the groups with access to modified jury instructions had the highest percentage of correct verdict determination for each type of trial transcript (Groups 1 and 4). It is also seen that Groups 5 and 6 had the same percentage of correct verdict determination, even though Group 5 had access to standard jury instructions and Group 6 did not have access to any jury instructions.

In Figure 3, it is seen that out of the groups given the coerced confession trial transcript, Group 1 had a higher percentage of correct confession identification than Groups 2 and 3, and out of the groups given the voluntary confession trial transcript, Group 4 had a higher percentage of correct confession identification than Groups 5 and 6. Groups 2 and 3 displayed similar results, and Groups 5 and 6 also displayed similar results. Tables 2 and 3 are summary tables of the two multinomial logistic regression tests conducted in Microsoft Excel for both dependent variables of juror verdicts and confession identifications.

In Table 2, it is seen that the effect of modified jury instructions on juror verdict determinations was significant, Wald χ^2 (4, *N*=180) =6.786, p<0.05. The interaction between modified jury instructions and the coerced confession trial transcript was also seen to be significant, Wald χ^2 (4, *N*=180) =7.140, p<0.05.

In Table 3, it is also seen that the effect of modified jury instructions on confession identifications was significant, Wald χ^2 (4, N=180) =6.749, p<0.05. The interaction effect between modified jury instructions and the coerced confession trial transcript was seen to be significant as well, Wald χ^2 (4, N=180) =14.105, p<0.001. The interaction effect between standard jury instructions and the coerced confession trial transcript is seen to be marginally significant, Wald χ^2 (4, N=180) =2.958, p=0.085.

Table 4 displays some of the concepts in the questions participants answered after reading the questionnaire, which are the coercion of the interrogation, the fairness of the interrogation techniques, and the pressure placed on the defendant. The groups with the coercive trial transcript, Groups 1, 2, and 3, should have identified a high rating for interrogation coercion and pressure placed on the defendant, and a low rating for the fairness of interrogation techniques. The groups with the voluntary trial transcript, Groups 4, 5, and 6, should have identified a low rating for interrogation coercion and pressure placed on the defendant, and a high rating for the fairness of interrogation techniques. Among the groups with a coercive confession trial transcript (Groups 1, 2, and 3), Group 1 had the highest rating for the level of coercion of the interrogation (M=6.129), the highest rating for the amount of pressure placed on the defendant (M=6.226), and the lowest rating regarding the fairness of the interrogation techniques (M=2.742). Among the groups with a voluntary confession trial transcript (Groups 4, 5, and 6), Group 6 had the lowest rating for the coerciveness of the interrogation (M=4.303). Group 4 had the highest rating for the fairness of techniques (M=4.926) and the lowest rating for the groups 4 and 6 had similar responses.

Discussion

The purpose of this study was to determine if the modification of standard jury instructions would assist jurors in making verdicts and identifying confessions as a result of an interrogation. This study is important in identifying judicial safeguards that will benefit jurors in making sound decisions and preventing the likelihood of wrongful convictions due to coerced confessions. It was hypothesized that participants with access to modified jury instructions would lead to the highest percentage of correct verdicts and correctly identified confessions among both the coerced and voluntary confession trial transcripts. Among the groups given the coerced confession trial transcript, Group 1, which was given access to modified jury instructions while reading the trial transcript, had the highest percentage of correct verdict determinations and correct confession identifications. Among the groups given the voluntary confession trial transcript, Group 4, which was also given access to modified jury instructions while reading the trial, also had the highest percentage of correct verdict determinations and correct confession identifications. It was also determined that participants that read the coerced confession trial transcript and were given access to modified jury instructions had a better understanding of the coerciveness of the interrogation, the fairness of the interrogation techniques, and the degree of pressure placed on the defendant.

In Table 1, it was found that the groups of participants with access to modified jury instructions had the highest percentage of correct verdict determinations and correct confession identifications for each type of trial transcript (either based on a coerced confession or a voluntary

confession). There was a smaller difference between the groups with access to standard jury instructions and access to no jury instructions for each type of trial transcript as well, suggesting that the responses of participants with access to standard jury instructions were similar to the responses of participants without access to any instructions.

It was further determined through two multinomial logistic regression tests in Tables 2 and 3 that there was a significant effect of modified instructions on juror verdicts and confession identifications, Wald χ^2 (4, *N*=180) =6.786, p<0.05, and Wald χ^2 (4, *N*=180) =7.140, p<0.05, respectively. The interaction between the modified instructions and the coerced confession trial transcript were also seen to have a significant effect on both juror verdicts and confession identifications as well. This shows that the presence of modified jury instructions influenced juror-decision making and the responses of the participants given access to modified jury instructions were significantly different than the responses of participants given access to standard jury instructions at all. Thus, the hypothesis that participants with modified jury instructions would have the highest correct verdict determinations and confession identifications was supported.

In Table 4, it was found that participants given access to modified jury instructions rated the coerced trial transcript as containing a more coercive interrogation with less fair interrogation techniques. Although less variance was seen between the groups with the voluntary trial transcript, it was still shown that participants given access to modified jury instructions rated the voluntary trial transcript as containing a less coercive interrogation with more fair interrogation techniques. These results suggest that participants with access to modified jury instructions have a better understanding of the trial transcript, and the use of the modified instructions had an effective impact on these aspects of juror decision-making.

In previous research, a study by Jones et al. (2021) focused on the use of eyewitness testimony and judicial instructions in the efforts of improving juror decision-making and identification of witnesses. The study found that when the participants were placed in a high-pressure interrogation, they had decreased perceptions of guilt as compared to the low-pressure interrogation. These results were observed in the current study because participants in the coerced confession groups had a high rating when determining how coercive the interrogation was and a low rating when determining how fair the interrogation was. However, this trial transcript was centered around a robbery case and the instructions were confession-based. Another study by Jones and Penrod (2017) focused on the ability of jury instructions to assist jurors in their decision-making, and it was found that the presence of judicial instructions assisted the participants in evaluating the evidence and the interrogation. These results were seen in the current study because although there was not a significant difference between the groups with no jury instructions and the groups with standard jury instructions, it was seen that the use of modified jury instructions not only assisted jurors with their decision-making, but also how they viewed other aspects of the case such as the fairness of the interrogation in the trial. A third study by Jones et al. (2020) focused on the use of eyewitness instructions and judicial instructions in the efforts of improving juror decision-making and identification of witnesses, and it was found that the presence only a few circumstances in which the eyewitness factors that resulted in heavily opinionated identifications, but it was found that the jury instructions were helpful when there were many eyewitness instructions were beneficial. These results were not seen in the current study, as it was shown that the modified jury instructions did have a greater impact in resulting in correct juror decision-making with verdict

It is important to note the sources of uncertainty in this study. The participants recruited from Amazon Mechanical Turk could have not fully read some of the questions or fully understood the trial transcript. Although the time participants took to complete the questionnaire was monitored and manipulation check questions were included within the trial transcript to make sure participants read the trial and at least understood the basic components of the trial, there is a possibility that some participants did not fully understand or read through the Likert scale questions toward the end of the questionnaire that required a rating on a scale of 1 to 7. A procedural improvement would be to allow for more text responses from participants so rationale for certain answers would be provided.

Some limitations of this study include that the participants recruited in this study were only juror-eligible, not actual jury-serving members. Members of the jury are more familiar with the layout of trials and other specific information of the courtroom. However, the study did ensure that all participants were jury-eligible at the beginning of the questionnaire. The trial transcripts used have also been shortened for the sake of the study. It is possible that reading the full trial could have impacted participants' decisions and caused them to think differently about the case.

There are many directions for future research. There can be further studies that focus on specific factors in modified jury instructions and their effects on juror thinking and decision-making. The applications of these studies can then be applied to other courtroom issues and causes of wrongful convictions. Future research can be focused on the variances between interrogation pressure. Studies can also be conducted on various psychological effects and biases within interrogation techniques. Overall, various judicial safeguards and their effectiveness in juror decision-making should continue to be researched, especially with the rise of false confessions and wrongful convictions.

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References

- Jones, A. M., Blinkhorn, A. M., & Hawley, A. M. (2021). Sensitivity to psychologically coercive interrogations: A comparison of instructions and expert testimony to improve juror decision-making. *Journal of Forensic Psychology Research and Practice*, 21(4), 373-394. https:// doi.org/10.1080/24732850.2021.1892438
- Ewanation, L., & Maeder, E. M. (2021). The interactive effects of race and expert testimony on jurors' perceptions of recanted confessions. Frontiers in Psychology, 12. https://doi.org/10.3389/fpsyg.2021.699077
- 3. Bernhard, P. A., & Miller, R. S. (2018). Juror perceptions of false confessions versus witness recantations. *Psychiatry, Psychology and Law, 25*(4), 539-549. https://doi.org/10.1080/13218719.2018.1463874
- Loney, D. M., & Cutler, B. L. (2015). Coercive interrogation of eyewitnesses can produce false accusations. Journal of Police and Criminal Psychology, 31(1), 29
 -36. https://doi.org/10.1007/s11896-015-9165-6
- Woody, W. D., Stewart, J. M., Forrest, K. D., Camacho, L. J., Woestehoff, S. A., Provenza, K. R., Walker, A. T., & Powner, S. J. (2018). Effects of false-evidence ploys and expert testimony on jurors, juries, and judges. *Cogent Psychology*, 5(1). https://doi.org/10.1080/23311908.2018.1528744
- Gudjonsson, G. H. (2021). The science-based pathways to understanding false confessions and wrongful convictions. *Frontiers in Psychology*, 12. https:// doi.org/10.3389/fpsyg.2021.633936

- 7. Kassin, S. M. (2014). False confessions. Policy Insights From the Behavioral and Brain Sciences, 1(1), 112-121. https://doi.org/10.1177/2372732214548678 8. Jones, A. M., & Penrod, S. (2017). Research-Based instructions induce sensitivity to confession evidence. Psychiatry, Psychology and Law, 25(2), 257-272. https://doi.org/10.1080/13218719.2017.1364677
- 9. Juror qualifications. (n.d.). United States Courts. https://www.uscourts.gov/services-forms/jury-service/juror-qualifications
- 10. Maeder, E. M., & Pica, E. (2014). Secondary confessions: The influence (or lack thereof) of incentive size and scientific expert testimony on jurors' perceptions of informant testimony. Law and Human Behavior, 38(6), 560-568. https://doi.org/10.1037/lhb0000106
- 11. Leo, R. A. (2009). False confessions: Causes, consequences, and implications. The Journal of the American Academy of Psychiatry and Law, 37(3), 332-343. http://jaapl.org/content/37/3/332
- Jones, A. M., Bergold, A. N., & Penrod, S. (2020). Improving juror sensitivity to specific eyewitness factors: Judicial instructions fail the test. *Psychiatry*, *Psychology and Law*, 27(3), 366-385. https://doi.org/10.1080/13218719.2020.1719379
 Modjadidi, K., & Kovera, M. B. (2018). Viewing videotaped identification procedure increases juror sensitivity to single-blind photo-array administration. *Law*
- and Human Behavior, 42(3), 244-257. https://doi.org/10.1037/lhb0000288
- 14. Dillon, M. K., Jones, A. M., Bergold, A. N., Hui, C. Y. T., & Penrod, S. D. (2017). Henderson instructions: Do they enhance evidence evaluation? Journal of Forensic Psychology Research and Practice, 17(1), 1-24. https://doi.org/10.1080/15228932.2017.1235964
- 15. Conklin, M. (2021). I knew it all along: The promising effectiveness of a pre-jury instruction at mitigating hindsight bias. SSRN Electronic Journal. https:// doi.org/10.2139/ssrn.3962419
- 16. Rogers, M. (2021). Laypeople as learners: Applying educational principles to improve juror comprehension of instructions. Northwestern University Law Review, 115(4). https://scholarlycommons.law.northwestern.edu/nulr/vol115/iss4/4

Tables and Figures

Figure 1.	Experimental	Design Diagram
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Levels of Independent Variable	Group 1: Coerced Confession Trial Transcript with Modified Jury Instructions	<u>Group 2:</u> Coerced Confession Trial Transcript with Standard Jury Instructions	<u>Group 3:</u> Coerced Confession Trial Transcript with No Jury Instructions	<u>Group 4:</u> Voluntary Confession Trial Transcript with Modified Jury Instructions	<u>Group 5:</u> Voluntary Confession Trial Transcript with Standard Jury Instructions	<u>Group 6:</u> Voluntary Confession Trial Transcript with No Jury Instruction
Number of Participants	30	30	30	30	30	30

Constants

The source of participants (Amazon Mechanical Turk), the Qualtrics questionnaire, the time period of experimentation, the juror-eligibility of participants, and the location of participants (United States)

Group	Correct Verdict Determination (%)	Correct Confession Identification (%)
Group 1	86.667	96.667
Group 2	76.667	76.667
Group 3	66.667	73.333
Group 4	76.667	70.000
Group 5	43.333	50.000
Group 6	43.333	46.667

Note. This table shows the percentage of correct verdict determination and correct confession identification for all groups in the study. Groups 1, 2, and 3 had a trial transcript with a coerced confession, and a "not guilty" verdict should have been determined. Groups 4, 5, and 6 had a trial transcript with a voluntary confession, and a "guilty verdict" should have been determined.

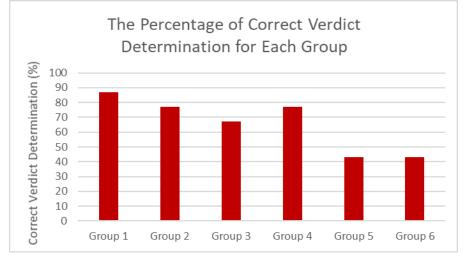


Figure 2. The Percentage of Correct Verdict Determination for Each Group

Note. This graph is a visual representation of the data in Table 1 for the dependent variable of correct verdict determination. It is seen that Group 1 had a higher percentage of correct verdict determination than Groups 2 and 3, and Group 4 had a higher percentage of correct verdict determination than Groups 5 and 6.

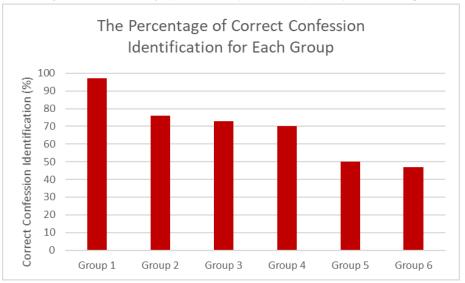


Figure 3. The Percentage of Correct Confession Identification for Each Group

Note. This graph is a visual representation of the data in Table 1 for the dependent variable of correct confession identification. It is seen that Group 1 had a higher percentage of correct confession identification than Groups 2 and 3. It is also seen that Group 4 had a higher percentage of correct confession identification than Groups 5 and 6. It is observed that Groups 2 and 3 of the coerced confession trial transcript displayed similar results, while Groups 5 and 6 of the voluntary confession trial transcript also displayed similar results.

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	Coefficient	Standard Error	Wald	p-value	Odds Ratio
Intercept	-0.285	0.366	0.606	0.436	0.752
Modified Instructions	1.474	0.566	6.786	0.009	4.371
Standard Instructions	0.034	0.514	0.004	0.947	1.035
Coerced Confession Transcript	-0.389	0.526	0.547	0.459	0.678
Modified Instructions and Coerced Confession Transcript (Interaction)	-2.171	0.812	7.140	0.008	0.114
Standard Instructions and Coerced Confession Transcript (Interaction)	-0.573	0.756	0.573	0.449	0.564

Table 2. Multinomial Logistic Regression Summary Table of Trial Transcript Type and Instructions Type on

 Verdict Determination

Note. This table is a summary table of the multinomial logistic regression test for verdict determinations conducted in Microsoft Excel. It is seen that the data for modified jury instructions and the interaction between modified jury instructions and the coerced confession trial transcript were statistically significant because these p-values were less than the alpha value of 0.05.

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	Coefficient	Standard Error	Wald	p-value	Odds Ratio
Intercept	-0.134	0.366	0.133	0.715	0.875
Modified Instructions	1.519	0.585	6.749	0.009	4.571
Standard Instructions	0.402	0.519	0.599	0.439	1.495
Coerced Confession Transcript	-0.135	0.519	0.067	0.795	0.874
Modified Instructions and Coerced Confession Transcript (Interaction)	-4.619	1.229	14.105	< 0.001	0.009
Standard Instructions and Coerced Confession Transcript (Interaction)	-1.323	0.769	2.958	0.085	0.266

 Table 3. Multinomial Logistic Regression Summary Table of Trial Transcript Type and Instructions Type on

 Confession Identification

Note. This table is a summary table of the multinomial logistic regression test for confession identifications conducted in Microsoft Excel. It is seen that the data for modified jury instructions and the interaction between modified jury instructions and the coerced confession trial transcript were statistically significant because these p-values were less than the alpha value of 0.05.

	Interrogation Coercion	Fairness of Techniques	Pressure Placed on Defendant
Group 1	6.129 (1.056)	2.742 (1.673)	6.226 (1.146)
Group 2	5.777 (1.396)	3.852 (2.051)	5.741 (1.289)
Group 3	5.514 (1.147)	3.600 (1.881)	6.057 (0.906)
Group 4	4.630 (1.651)	4.926 (1.567)	4.593 (1.782)
Group 5	5.280 (1.595)	4.480 (1.711)	5.280 (1.100)
Group 6	4.303 (1.610)	4.882 (1.431)	4.676 (1.683)

Table 4. Means and Standard Deviations of Ratings of Interrogation Coercion, Fairness of Techniques, and

 Pressure Placed on Defendant

Note. This table shows the means and standard deviations (in parentheses) of the factors of interrogation coercion, fairness of interrogation techniques, detective motivation to elicit a confession, and pressure placed on the defendant. Participants in each group were required to rank each of these factors on a scale of 1-7, with 1 being "strongly disagree" and 7 being "strongly agree".

Appendix

A. Questionnaire

https://docs.google.com/document/d/1XQzNN9BXQYd1-XhBOX9nXv0gzAVJfzJ68xO2kLCZB5U/edit?usp=sharing

This link is a copy of the questionnaire all participants accessed when they accepted the Human Intelligence Task (HIT) on Amazon Mechanical Turk. The questionnaire was created on Qualtrics XM, and all responses were collected on this platform as well.

B. Trial Transcripts

https://drive.google.com/drive/folders/1X2g2ViS5j4M7Df5Jnbl-QQUQYQwscOhY?usp=sharing

This link is a Google Drive folder containing the two types of trial transcripts used in this study, which are the coerced confession trial transcript and the voluntary confession trial transcript. Groups 1, 2, and 3 read the coerced confession trial transcript, and Groups 4, 5, and 6 read the voluntary trial transcript.

C. Jury Instructions

https://drive.google.com/drive/folders/16AoKVPoKeU573qcq5oWKgvuKZfFYhRnN?usp=sharing

This link is a Google Drive folder containing the modified jury instructions and the standard jury instructions used in the study. Groups 1 and 4 utilized the modified jury instructions when determining their verdict and confession type, and Groups 2 and 5 utilized the standard jury instructions when determining their verdict and confession type. Groups 3 and 6 did not use any jury instructions when determining their verdict and confession type.