



Motivated Reasoning in Legal Decision-Making

Social Psychology Lab

*Thank you for your participation in this lab! This document should assist you in your write-up of the lab report. **Your report is due Thursday, April 21st by end of day.***

GOAL

As a reminder, the main goal of the current lab was to test whether randomly assigning people to argue for or against the guilt of a student alleged to have committed academic misconduct would influence their judgments and decisions about the case. As part of the lab you should also have achieved the goals described in the box to the right, as well as how to design an experiment.

Learning goals

1. Investigate whether adversarial roles influence legal judgments
2. Describe empirical evidence for motivated reasoning
3. Distinguish between factors that exacerbate or attenuate biases resulting from motivated reasoning
4. Understand the implications of motivated reasoning for the fair administration of justice

INTRODUCTION

The theoretical rationale for the current experiment is based on the seminal paper by Ziva Kunda (1990) which proposed that people's motivations can bias the way they seek, generate, process, and interpret information. Consider the way your classmates' roles influenced the way they described the case evidence — evidence that as we noted, was deliberately ambiguous and could be used to mount an argument in either direction.

PRESENT EXPERIMENT

In the present experiment, we attempted to replicate work by Simon et al. (2021) demonstrating that adopting an adversarial role influences how we interpret information and decision-making.



Make my day: Come say hi to me!

Wednesdays from 12:30 to 1:30 pm; by appt.

(calendly.com/stephanieacardenas) or email me at sac1@williams.edu.

Please reach out if you have questions!

Your TAs are also available to help in Wach 222:

- Chloe Moffitt : Tuesdays (7:00-8:00 pm); Thursdays (2:30 - 3:30 pm)
- Samuel Mermin : Mon/Wednesday (7:00-8:00 pm)

INSTRUCTIONS FOR WRITING THE LAB REPORT

What follows is a set of brief instructions as they pertain to the current lab. Additionally, though you are not required to read additional materials to write your lab report, I would recommend skimming parts of [Simon et al. \(2020\)](#), as this is the paper we based our lab on. You may also find it helpful to read this guide on [How to Read a Journal Article in Social Psychology](#) for the first time.

I suggest you use the headings as I have labeled them below as these are formatted in the latest APA-style (7th edition). Though it is **not required** to write this lab report using APA-style headings, exposure to writing in this format may help you in future psychology courses where you will likely be expected to use APA-style¹. Feel free to use (or not use!) these headings.



It is essential that you use the [Guidelines to Writing Psychology 101 Lab Reports](#) to write your report (see an example report [here](#)). The instructions there are much more thorough than what I provide here.

Introduction

Discuss the theoretical rationale (i.e., motivated reasoning from Kunda's (1990) paper, myside bias) for the current work and describe the empirical evidence discussed in the lab (such as Eigen and Listokin's law student role-induced bias study and findings by Simon et al. 2020). You should cite Simon et al. (2020) as this is the study we attempted to (and successfully did) replicate. Please discuss how having an adversarial mindset can lead to people to hold more extreme opinions that benefit their position.

This paragraph should explain the significance of the problem or issue. Why should we care to study this topic? What was the purpose of conducting this experiment?

Hypotheses

Outline your specific hypothesis here and the direction of the effects you expected based on the lecture and lab discussion (e.g., Those assigned to the University Representative role will estimate a higher likelihood that Debbie cheated relative to those assigned to the Student Representative role).

¹ If you're interested, [here](#) is a sample sheet showing what APA headings should look like.

H1. Interpretation of the case facts². Role assignment will cause participants to interpret the case facts in favor of their side, such that those in the **[University Representative or Student Representative]** role assignment will interpret the case facts *more* as suggesting that Debbie cheated compared to those in the **[University Representative or Student Representative]** role assignment who will interpret the case facts as suggesting *more* that Debbie is innocent.

H2. Estimated likelihood of Debbie Being Guilty. Role will determine the extent to which participants think Debbie cheated, such that those in the **[University Representative or Student Representative]** role assignment will think there is a higher likelihood that Debbie cheated than those in the **[University Representative or Student Representative]** role assignment.



Remember we talked about specifying the direction of your hypotheses. You don't just expect role assignment to influence the estimated likelihood that Debbie cheated. You have a specific prediction about whether the participants assigned to the University Rep role will estimate a *higher* or *lower* likelihood that Debbie cheated compared to students assigned to the Student Rep role. Fill in your specific hypothesis for H1 and H2.

In class we discussed other variables and hypotheses. To simplify your write-up, I have included only two hypotheses and two variables here. You can copy+paste the exact phrasing of the hypotheses above into your paper after you fill in the blanks.

Method

This section should act like a recipe for future researchers who want to replicate your work. It includes a description of your Subjects, Materials, and Procedures.

Subjects

Describe who participated in your study. Include the total number of people who took your survey (N= ?). Also include demographic information (e.g., age, gender) in this section only.

Materials

² In the lab and in Simon et al. (2020), this is referred to as “inferences drawn from case facts.” But interpretations of the case facts sound more like how normal people talk.

Describe the survey in this section including your independent variable³ (i.e., role assignment, the three types of roles, and how they were manipulated) and you dependent variables (e.g., estimated likelihood of being found guilty), and what questions we used to measure these concepts (e.g., “In your opinion, what is the likelihood that Debbie did in fact cheat on the exam?”) and the scales you used in the survey (e.g., from 0% to 100%).

Remember we discussed how we calculated the reliability of a scale using the 10 items assessing how participants interpreted the case facts. You do not need to list all 10 case fact items here, just provide 1-2 examples of what the items looked like (e.g., “Debbie’s back injury – sustained during her time in the college football team – explains why she was crouched over her exam”) and the “alpha” reliability measure (which is .78, and indicated that our measures were reliably capturing how guilty you all thought Debbie was based on these case facts). You can find select parts of the survey you completed [here](#).

Procedures

Outline exactly how the data were collected: (1) how the experimenter (Prof. Cardenas!) recruited participants; (2) how Prof. Cardenas introduced the study; (3) what participants did during the survey; (4) how long survey participation took; (5) explain the use and purpose of deception regarding the mock trial).

Results

The Results section is where you present your data and analyses. In other words, this is where you summarize your findings. Please do not offer an explanation for what these findings mean beyond the facts. For example, you might find that on average males are less likely to follow politics as compared to women. This would be an important finding to note although in this section it would not be appropriate to then extend the interpretation further by theorizing how it might have had an impact on voting habits in the 2016 presidential election (such theorizing would be appropriate in the “Discussion Section” but not here).

Describe the findings of the experiment for each of the dependent variables in the headings below (e.g., Interpretation, Likelihood, etc). You should report the means, standard deviations (a measure of how much responses varied between participants), and statistical results for both groups for each of the dependent variables below.

³ *Independent variable* = the ‘cause’ in a cause and effect relationship; the thing the experimenter manipulates in the study to understand how it influences some outcome.

Dependent variable = the ‘effect’; the thing that is influenced by the independent variable.

Include Figures or a Table where appropriate in this section, but make sure to number it (e.g., “Figure 1. Estimated likelihood of being guilty by role assignment”) *and* refer to it in the text of your Results section (e.g., As shown in Figure 1, ...”). This section should use the past tense. [Instructions for interpreting the results can be found here.](#)

This section includes the two subheadings of “The Influence of Role Assignment on Interpretations of the Case Facts” and “The Influence of Role Assignment on Estimated Likelihood of Debbie Cheating.” Write the specific results for Interpretation of the Case Facts and for Likelihood of Debbie Cheating under the corresponding heading.

The Influence of Role Assignment on Interpretations of the Case Facts

Describe results pertaining to this dependent variable here. You may wish to include relevant figures, means, sd, and statistical results here.

The Influence of Role Assignment on Estimated Likelihood of Debbie Cheating

Describe results pertaining to this dependent variable here. You may wish to include relevant figures, means, sd, and statistical results here.

Discussion

Your discussion section should include the following: Purpose and Summary, Implications, and Limitations and Future directions. :

- ***Purpose and Summary***

- Restate the purpose of the study here in 1-2 brief sentences. Summarize findings as they relate to the hypotheses. Address whether each hypothesis was supported. If a hypothesis was supported, why do you think it was? If not, why do you think it was not?

Implications

Consider the implications of the results, e.g., What do the results suggest about the behaviors of legal actors in the legal system? Can awareness of the myside bias mitigate the results seen here? Under what circumstances would we not observe these effects? We discussed many of these implications during the lab, so refer to your notes!

Limitations and Future Directions

Discuss some possible limitations of the study and propose how you would fix the limitations to make a better study.

References

You must include a References section. Any statements made in the body of your paper are based on the research of other people and should therefore be accompanied by a citation (in the body of the paper) and a reference (in the References section). A citation is usually presented at the end of the relevant sentence and is enclosed in parentheses. You do not need to find additional references for this assignment. You should cite Simon et al. (2020) in your paper since that is the work we replicated and the source of the materials adapted for the current experiment.

Simon, D., Ahn, M., Stenstrom, D. M., & Read, S. J. (2020). The adversarial mindset. *Psychology, Public Policy, and Law*, 26(3), 353.
<https://doi.org/10.1037/law0000226>

If you found and used one of the studies described in the lab (e.g., the one about role-induced bias among law students in a moot court program) you would cite it in the text as:

- Eigen and Listokin (2012) found that law students...
- One study demonstrated role-induced bias among . . . (Eigen & Listokin, 2012).

In the reference section you would include the full citation:

Eigen, Z. J., & Listokin, Y. (2012). Do lawyers really believe their own hype, and should they? A natural experiment. *The Journal of Legal Studies*, 41(2), 239-267.
<https://www.journals.uchicago.edu/doi/pdf/10.1086/667711>

Hastorf, A. H., & Cantril, H. (1954). They saw a game; a case study. *The Journal of Abnormal and Social Psychology*, 49(1), 129–134.
<https://doi.org/10.1037/h0057880>

Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108(3), 480.
<https://doi.org/10.1037/0033-2909.108.3.480>

Murrie, D. C., Boccaccini, M. T., Guarnera, L. A., & Rufino, K. A. (2013). Are forensic experts biased by the side that retained them?. *Psychological Science*, 24(10), 1889-1897. <https://doi.org/10.1177/0956797613481812>

The citation for this handout would be (Cardenas, 2021) or Cardenas (2021) and the reference would be:

Cardenas, S. A. (2021). Social Psychology Laboratory Handout. *Introductory Psychology*. Williams College.

Materials for Writing Your Lab Report

Powerpoint presentation and Qualtrics survey

You can access a google document containing the questions you responded to during the survey at [this link](#) (and in our course module). I have removed additional questions for the sake of simplicity, but you should write in your report that “additional questions” were asked but are not reported here. [Click here](#) to access the Powerpoint presentation from the lab.

Interpreting the results

You should report that statistical analyses were run in a statistical software program called R. I have included the output of specific results below. We combined the datasets from the four sessions of this lab conducted this semester (N = 70).

Descriptive Statistics⁴

Let's start off by saying something about what our sample looks like. Below are two tables showing the average age of our sample and the gender distribution.

⁴ There are two types of results you are being asked to present. Descriptive statistics and inferential statistics. Descriptive statistics help us describe what's going on in the data (this includes average, i.e., Means). Inferential statistics allow us to infer from our small sample data what the population might think.

There were 66 participants in total across the four lab sessions: 35 participants in the "University Representative" role assignment condition and 31 participants in the "Student Representative" condition.

Variable	N	Male	Female	Non-binary
Gender	66	37	26	3

Variable	N	Mean	Standard Deviation (SD)
Age	66	19.55	1.11

Here you can see that among the 66 participants, the age was, on average, 19.55 and the standard deviation (sd)– a measure of variability in participants' responses – was 1.11.

The standard way of reporting this is: "Participants were on average 19.55 ($SD = 1.11$) years old."

Now let's look at the mean values (averages) for "**Estimate Likelihood of Debbie Being Guilty**" and "**Interpretations of the Case Facts.**"

Variables	Student Representative Role Assignment	University Representative Role Assignment
H2. Estimate Likelihood of Debbie Being Guilty	54.84%	65.86%
H1. Interpretations Drawn from Case Facts	2.97	3.45

To assess whether the differences in "Estimate Likelihood of Debbie Being Guilty" and "Interpretations of the Case Facts" made by those in the Student Representative role were significantly different from

those made by those in the University Representative role we need to look at the inferential statistics. See next box!

Inferential Statistics

Interpreting t-test results

If you want to know whether the difference in "Estimate Likelihood of Debbie Being Guilty" and "Interpretations of the Case Facts" made by those in the Student Representative role were significantly different from those made by those in the University Representative role, then you've come to the right place.

Because these variables – (i.e., "Estimate Likelihood of Debbie Being Guilty" and "Interpretations of the Case Facts") – were measured on continuous Likert-type scales, we ran two Welch's independent sample's t-test.

Variables	Student Representative Role Assignment		University Representative Role Assignment		t	df	p-value
	Mean	SD	Mean	SD			
Interpretation of Case Facts (H1)	2.97	0.34	3.45	0.44	-4.97	62.70	< .001
Estimated Likelihood of Debbie Being Guilty (H2)	54.94%	16.56%	65.86%	20.6%	-2.41	63.44	.019

Remember, if the probability of obtaining a particular difference between these groups (Student vs. Uni Rep) merely by chance is *less* than or *equal* to 5% – that is, the p-value is .05 or less – then we say this difference is statistically significant.

The results of the t-tests should be reported as follows:

$t(\text{degrees of freedom}) = t \text{ statistic here}, p = (\text{degree of significance here}), \text{ e.g.,}$

$t(63.44) = -2.41, p = .019$

Now add the descriptive statistics (i.e., the mean and sds from above) for a more complete report. You should report the results of the t-test exactly as follows:

Participants assigned to the Student Representative role ($M = 54.94\%$, $SD = 15.56\%$) did not estimate a significantly higher likelihood of Debbie being guilty of cheating than participants in the University Representative group ($M = 65.86\%$, $SD = 20.6\%$). A Welch's independent sample's t-test demonstrates that this difference is statistically significant, $t(63.44) = -2.41, p = .019$. Hypothesis 2 [**was/was not**] supported.



Copying this paragraph is not plagiarism because I am explicitly giving you permission to copy + paste this into your write-up!

Now It's Your Turn!

Using the instructions and tables above, fill in the underlined blank spaces for Hypothesis 1. For example, where it says "*Student Representative role* ($M = ??$," use the table above to find the corresponding mean value for "interpretation of the case facts."

Participants assigned to the Student Representative role ($M = ??$, $SD = ??$) interpreted the case facts suggesting that Debbie was [**more or less**] guilty of cheating than participants in the University Representative group ($M = ??$, $SD = ??$). A Welch's independent sample's t-test demonstrates that this difference [**is/is not**] statistically significant, $t(??) = ??$, p [**< or =**] $??$. Hypothesis 1 [**was or was not**] supported.

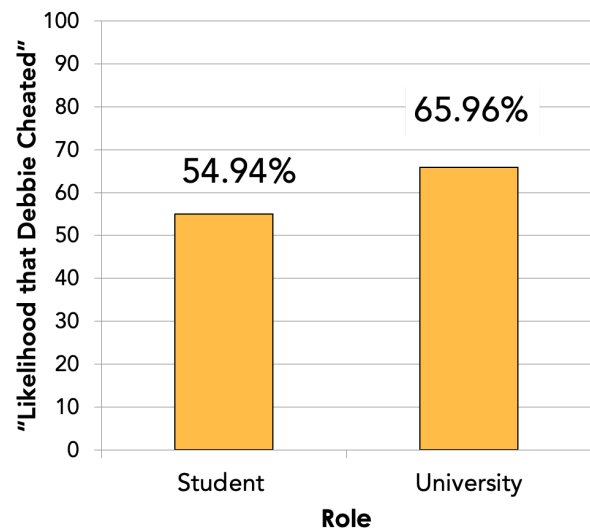
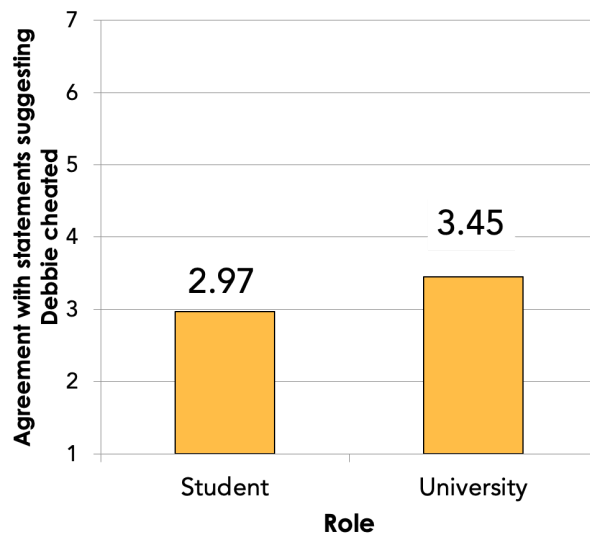
Once you have filled this in with the correct information, you can copy and paste it directly into your paper.

Figures

Remember to (1) place the figures below under the appropriate headings in the Results section, (2) provide titles for each figure (e.g., "Figure 1. Estimated likelihood of being guilty by role assignment") *and* (3) refer to it in the text of your Results section (e.g., As shown in Figure 1, ...").

(Left Figure) Hypothesis 1: Interpretations of case facts (i.e., in lab we called this "inferences drawn from case facts")

(Right Figure) Hypothesis 2: Estimated Likelihood of Debbie Being Guilty



FAQs from Office Hours

How thoroughly should we describe the methodology of the background research (e.g., Simon et al. 2020)? Because you are not required to do any additional research for this lab write-up, you may describe the methodology of the studies discussed in the lab in the same amount of detail as I provided. For example, I gave you a bare bones description of the methodology of the study by Hastorf and Cantril and the main highlights of the results of their study. You don't need to find the original article and say anything more about it, but you could if you wanted to.

What was the approximate timing of the study? It was in total around 25 minutes (5 minutes of introduction to the survey and 15-20 to complete the survey and begin writing the "written report").

Can we edit the parts (such as the hypotheses and results) that say they should be copied and pasted? Yes! You absolutely can tweak these to fit the flow of your writing. I have provided the standard way of reporting these things so you may not wish to deviate too much, but you are allowed.

What are some tips for if I want to do some more supplemental research on any of the articles we discussed in class or other relevant work? You can click the hyperlinks in the Reference section above to see the articles we discussed in class. Google Scholar (www.google.com/scholar) and PsycInfo (available at the Williams Library website: <http://libguides.williams.edu/az.php?a=p>) are good resources for finding articles. Talk to Abigail Cahill [she-her], our fabulous psychology library liaison, if you would like help navigating these search engines!

What limitations should I write about? This is a chance to put some original ideas down on paper about where you think the study could have been better! Are there any aspects that seemed unrealistic to you? Anything about the study you think makes the results less valid or not valid at all? What improvements do you think would help produce more valid results? Do you think these results would generalize to all relevant populations (e.g., actual lawyers, jurors, police, etc)?

When should I cite Cardenas (2021)? You may cite any ideas I discussed during the lab that were my own original ideas. If I described a study, for example, you don't need to cite me *and* that study. But if, for example, I mentioned some potential implications of this research or a definition of motivated reasoning not based on Kunda's (1990) paper, you should cite me. Any implications you generate that your own original thoughts don't need to cite me.

Are all the results/data I need in this document (is there a separate excel spreadsheet elsewhere)? All results are included in this document!

What is the difference between the Method and Procedures sections? The procedures section is a subheading under the Method heading.

Does gender or age predict different responses? Some of you asked whether there were any gender or age effects on our dependent variables. I checked and didn't find any significant differences in our sample.