Midterm 1

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Abstract:

Below is a replication of the tables and figures from J. Renshon, J. Lee, and D. Tingley's "Physiological Arousal and Political Beliefs" (Renshon, Lee, and Tingley 2014a). This replication draws from code taken from the Dataverse (Renshon, Lee, and Tingley 2014b) on the paper, but builds on it. The intention of this replication is to provide a better understanding and present the data and tables in a more appealing way. In addition to this, the code was remade using R rather than the original mixed use of Stata and R but also refines the existing code base for the existing paper. In the paper, there are three figures and one table. Figures 2 and 3 and Table 1 can be replicated completely, although I chose to make some modifications to their appearance and presentation. Figure 1 cannot be reproduced using R or any type of statistical or quantitative coding as it is diagram of the experiment's procedures. In the experiment, Renshon, Lee, and Tingley (2014b) finds that physiological reactivity mediated the relationship between anxiety and political attitudes through treatment conditions.

Replications:

Figure 2

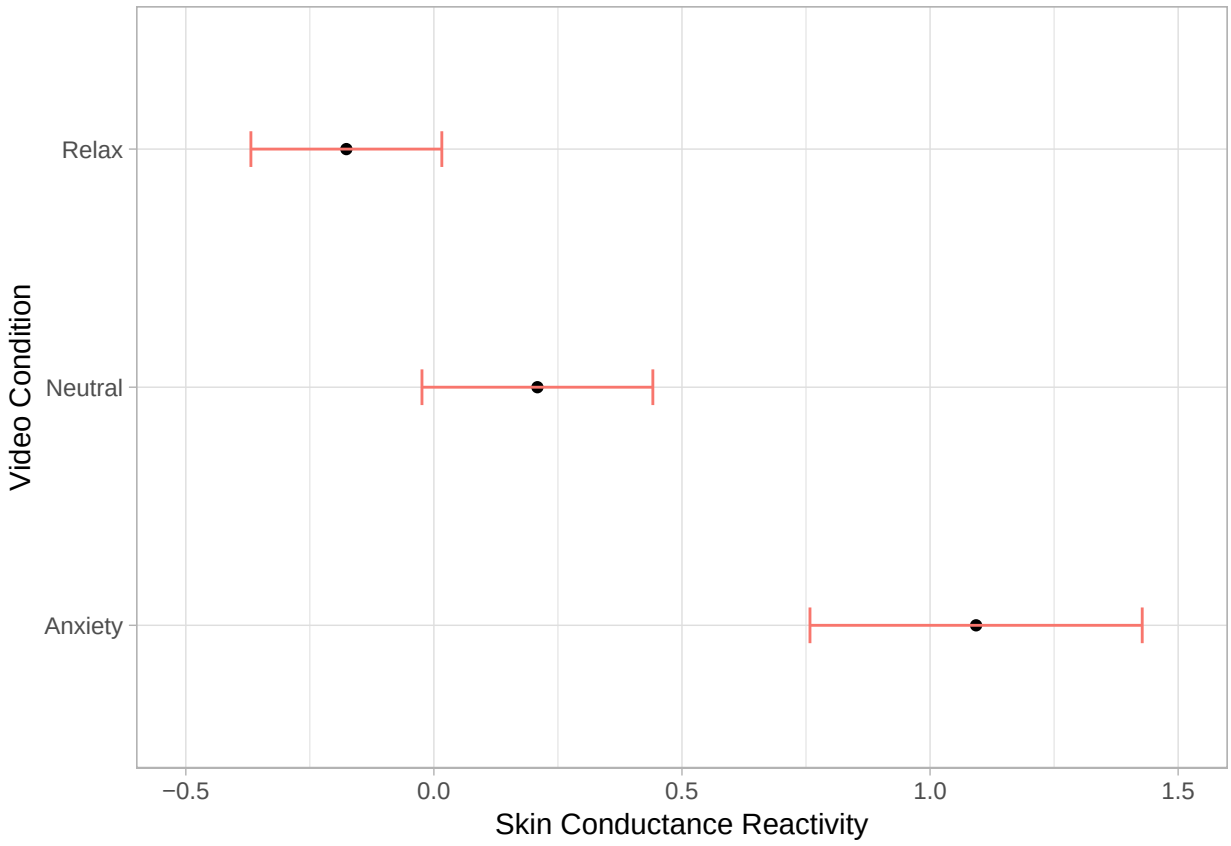


Figure 2: Means of skin-conductance reactivity by video condition. 95% confidence intervals are in red.

Table 1

Table 1:

	SC Reactivity	Immigration Preference
	(1)	(2)
Anxiety Manipulation	0.339^{*}	-0.277
	(0.195)	(0.178)
Story Condition		0.386^{**}
		(0.176)
SC Reactivity while answering questions		0.232^{**}
		(0.100)
Constant	0.115	1.983^{***}
	(0.137)	(0.138)
N	81	81
R^2	0.037	0.120

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

Note. Model (1) shows the effect of the treatment (anxiety) on physiological reactivity while Model (2) shows the effects of physiological reactivity on immigration preferences, controlling for the story condition. Both models includes only Neutral & Anxiety conditions (Relax condition is excluded). Standard errors in brackets.

Figure 3

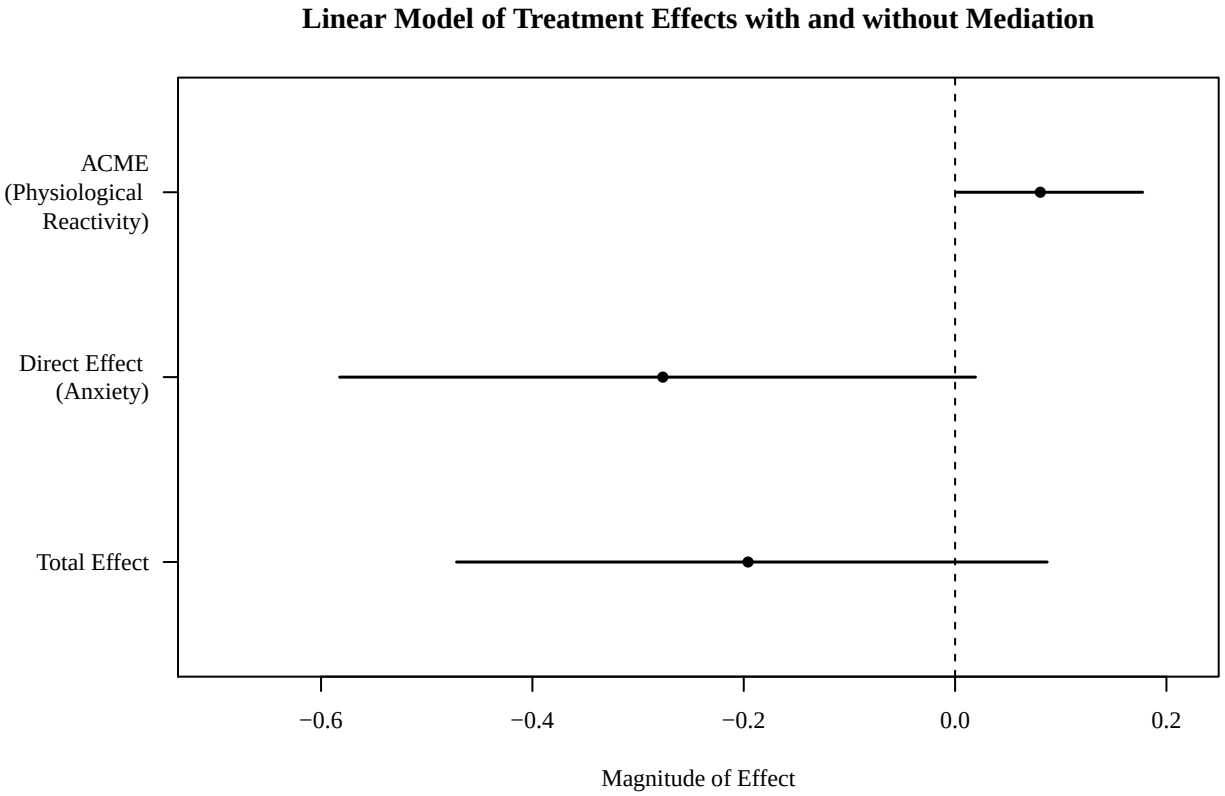
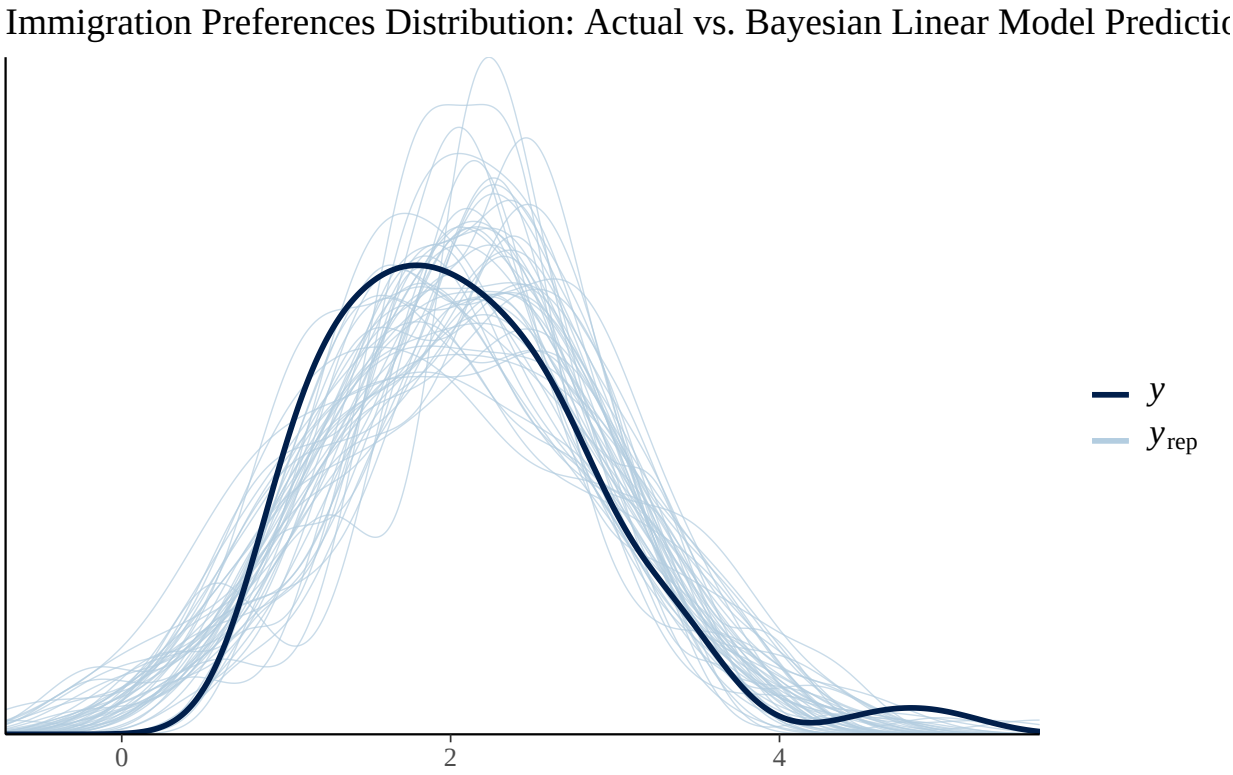
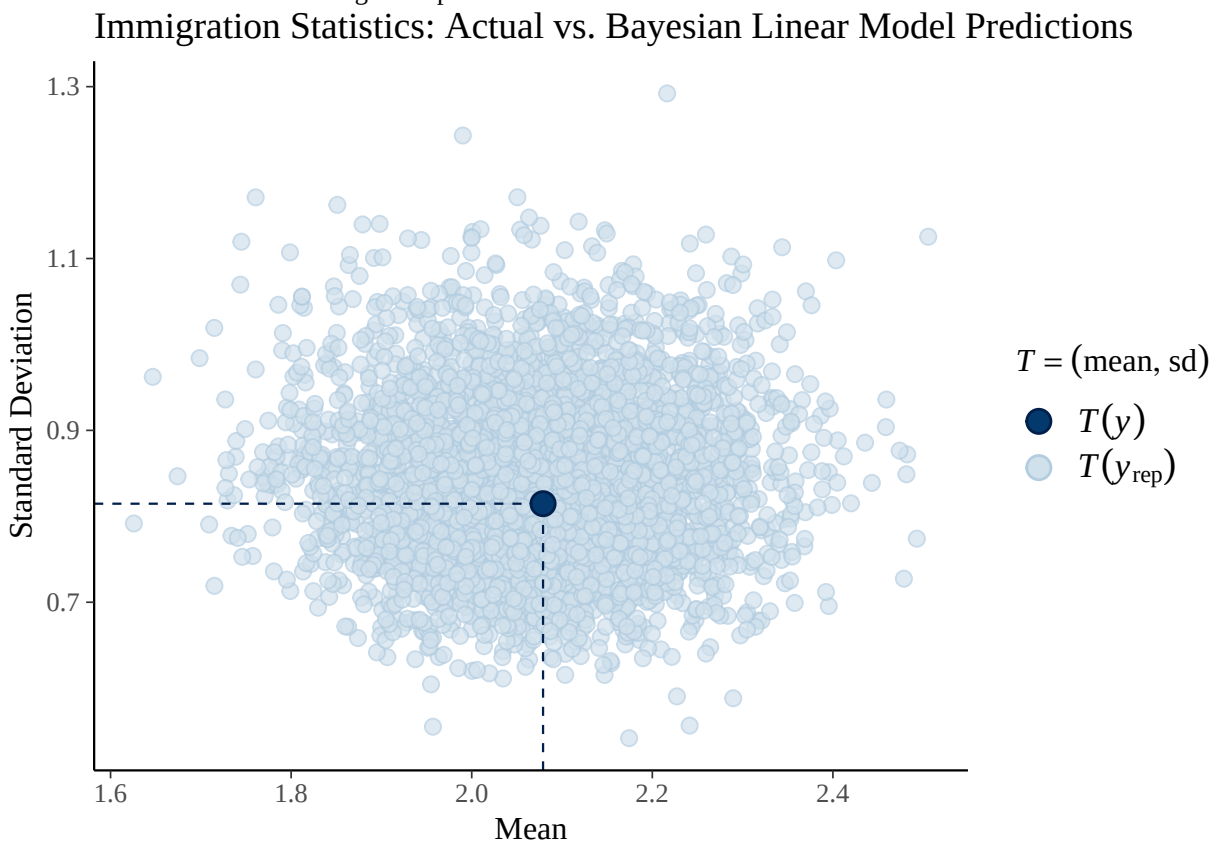


Figure 3. Causal mediation plot. Treatment is anxiety video manipulation (compared to neutral condition), Mediator is skin conductance reactivity when answering immigration questions, Outcome is composite variable of immigration preferences. Horizontal lines represent 90% confidence intervals for estimates.

Extension: Bayesian Models and Comparisons



The Bayesian doesn't perform as well as it should because the bounds of immgration preference weren't set to be between 1−5 for the model.



Model Fit Comparison: Should ideology be considered?

Stats	Magnitude
Model Fit	2.30
Standard Error	2.93

Since the model fit is positive when doing a leave-one-out comparison on the original paper's model to a new model where ideology is considered in immigration preferences, this means that the model which considers ideology is a better predictor of immigration preferences than the original paper.

References

Renshon, Jonathan, Jooa Julia Lee, and Dustin Tingley. 2014a. "Physiological Arousal and Political Beliefs." *Political Psychology* 36 (5): 569–85. https://doi.org/10.1111/pops.12173.

Renshon, Jonathan, Julia Lee, and Dustin Tingley. 2014b. "Replication data for: 'Physiological Arousal and Political Beliefs'." Harvard Dataverse. https://doi.org/10.7910/DVN/24318.