The Effect of a Counterfactual Mindset Induction on Jurors' Evaluations of Eyewitness Evidence

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INTRODUCTION

• Jurors typically rely on eyewitness confidence as an indicator of accuracy and fail to consider the role of a wide range of relevant system variables (e.g., lineup construction) and estimator variables (e.g., witnessing conditions; see Cutler et al., 1988).

• Legal safeguards designed to facilitate juror evaluations of eyewitness evidence usually result in general skepticism rather than sensitivity to variations in evidence quality (Van Wallendael et al., 2007).

• Counterfactual thinking—imagining how things might have been—has been shown to lay evaluations of eyewitness evidence (Rodriguez & Berry, 2016).

• We tested whether embedding a legally-relevant adaptation of counterfactual mindset induction within a trial (namely, defense closing arguments) would sensitize jurors to variations in eyewitness evidence quality and inform their verdicts.

METHOD

Design: 2 (Witnessing/Identification Conditions [WIC]: Good vs. Bad) × 2 (Mindset: Causal vs. CFT)

Participants
• N = 323 jury-eligible undergrads participated online
• 70% female, M_{age} = 19 years (SD = 1.5)

Trial Stimulus
• Participants read an abbreviated transcript of a murder trial, based on Wilford et al. (2018).
• The main form of evidence against the defendant was an eyewitness, who underwent direct and cross-examination. Jurors also read about inconclusive physical evidence.
• We manipulated several factors to create 2 different WIC (lighting, viewing distance, perpetrator race, administrator blindness, pre-lineup instructions, number and similarity of fillers, clothing bias, administrator steering, post-identification feedback, pre-trial publicity).

Dependent Variables
• Memory accuracy ratings
• Dichotomous verdicts

RESULTS

Memory Accuracy Ratings
• A 2 (WIC) × 2 (Mindset) ANOVA did not reveal the predicted interaction, F (1, 319) = .029, p = .865. There was a significant main effect of WIC, F (1, 319) = 15.835, p <.001. Participants rated the witness's memory as weaker in the Bad WIC condition compared to the Good WIC condition (see Figure 1).

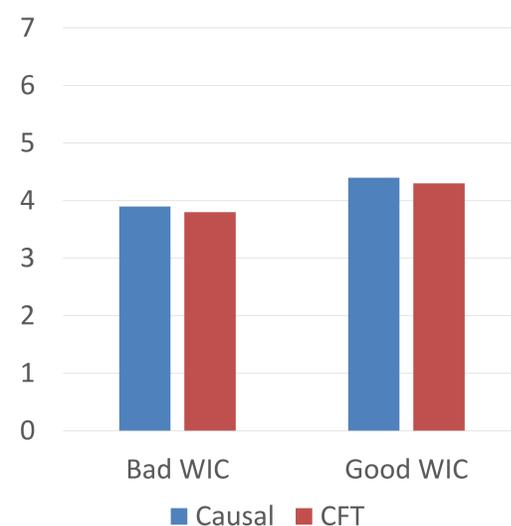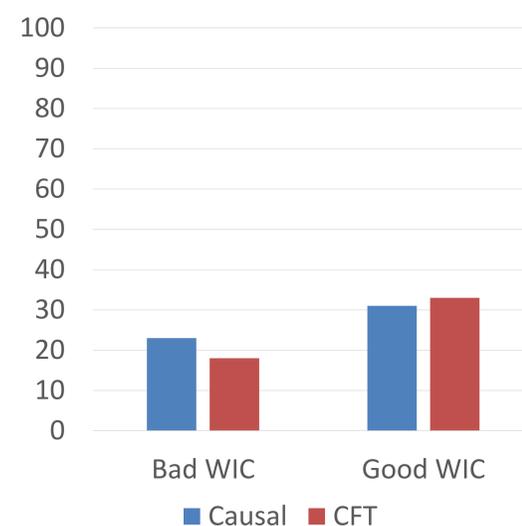
Figure 1: Memory Accuracy Ratings

Figure 2: Percentage of Convictions

Verdicts
• Logistic regression with a backward elimination procedure did not reveal a significant WIC × Mindset interaction, b = .328, Wald χ^2 (1, N = 323) = .724, p = .395. However, there was a significant main effect of WIC, b = -0.630, Wald χ^2 (1, N = 323) = 5.969, p = .015 Participants returned fewer guilty verdicts in the good WIC condition than the bad WIC condition (see Figure 2).
• Memory accuracy ratings predicted verdicts when added to the model, b = .21, z = 12.94, p < .001, and the main effect of WIC was reduced to nonsignificance, suggesting mediation. The indirect effect of WIC on verdict via memory accuracy ratings was statistically significant, b = .06, z = 3.82, p < .001.

Type	Effect	Estimate	SE	95% C.I. Lower	95% C.I. Upper	β	z	p
Indirect	Mindset ⇒ Memory ⇒ Verdict	-0.01	0.01	-0.04	0.02	-0.02	-0.57	0.568
	WIC ⇒ Memory ⇒ Verdict	0.06	0.01	0.03	0.09	0.13	3.82	<.001
Component	MINDSET ⇒ Memory	-0.04	0.07	-0.17	0.09	-0.03	-0.57	0.568
	Memory ⇒ Verdict	0.21	0.07	0.18	0.24	0.59	12.91	<.001
	WIC ⇒ Memory	0.27	0.07	0.14	0.40	0.22	4.00	<.001
Direct	MINDSET ⇒ Verdict	6.73e-4	0.02	-0.04	0.04	0.00	-0.03	0.973
	WIC ⇒ Verdict	0.00	0.02	-0.04	0.04	0.01	0.15	0.878
Total	MINDSET ⇒ Verdict	-0.01	0.02	-0.06	0.04	-0.02	-0.36	0.718
	WIC ⇒ Verdict	0.06	0.02	0.01	0.11	0.14	2.46	0.014

Indirect and Total Effects

DISCUSSION

• We did not replicate the findings of Rodriguez and Berry (2016): A counterfactual mindset did not sensitize jurors to WIC.

•One possible reason we didn't observe the predicted effect is because overall the evidence against the defendant was relatively weak as evidenced by the overall conviction rates in Figure 2. Although the pattern of convictions in the counterfactual condition corresponded to our predictions, a floor effect may have restricted our ability too observe a significant interaction.

•Another possibility is that a counterfactual mindset manipulation imbedded within defense attorneys' closing arguments is not effective. Perhaps the mindset induction may be more fruitfully embedded in other legally relevant procedures (e.g. judicial instruction).

•Although previous studies show that jurors have a hard time evaluating eyewitness evidence, our data indicated that jurors naturally distinguished good from bad WIC's and their conviction rates changed accordingly.

•Future research should examine the possibility of a sensitization effect using stimulus materials that avoid the potential influence of statistical artifacts.

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