



# Mock Jurors' Assessments of Blind Experts in Criminal Trials

Megan S. Wright, Ph.D., J.D. Candidate 2016, Yale Law School  
Samantha Kluth and Dana Dobbins, University of Arizona, Honors College



## Introduction

Jurors typically lack technical or scientific expertise, but are asked to make judgments about forensic evidence presented during trials. Expert witnesses interpret scientific evidence in order to assist jurors in reaching a verdict. Research has indicated that expert witnesses are susceptible to biases resulting from the current selection and compensation processes. This biased testimony can then lead jurors to inaccurate conclusions.

“Blind expertise” has been proposed as a solution to remove potential bias in expert witness testimony (Robertson 2010). Experts selected through an intermediary without knowing which party has requested their opinion can interpret the facts of the case free from affiliation bias. Prior research has shown that using a blinded expert witness increases the odds of a favorable verdict for the party employing the witness in *civil* trials (Robertson and Yokum 2012).

This experiment tested how use of a blind expert impacts juror verdicts in *criminal* trials, and thus whether it may be a rational strategy for litigants.

## Methodology

We used a three by two between-subjects fractional factorial experimental design. The subjects were successfully randomized across conditions.

Subjects read a vignette of an abbreviated fictional criminal trial modeled after transcripts from actual criminal trials. The jury instructions were based on the Revised Arizona Jury Instructions.

The substantive testimony of each expert was identical across conditions, but the vignette was edited such that either the prosecution, defense, or neither party had a blind expert. Additionally, there either was or was not an adversarial attack on the credibility of the non-blind experts *for not being blind* in cross-examination.

Mock jurors were asked to render a verdict, which was the primary dependent variable. We also asked jurors to describe the reason for their verdict.

The sample consisted of 444 subjects recruited online via Amazon Mechanical Turk. The sample was predominantly white (82%). The subjects had an average age of 35 years and a median age of 31. A detailed breakdown of participants' education and socioeconomic status can be seen in Table 1.

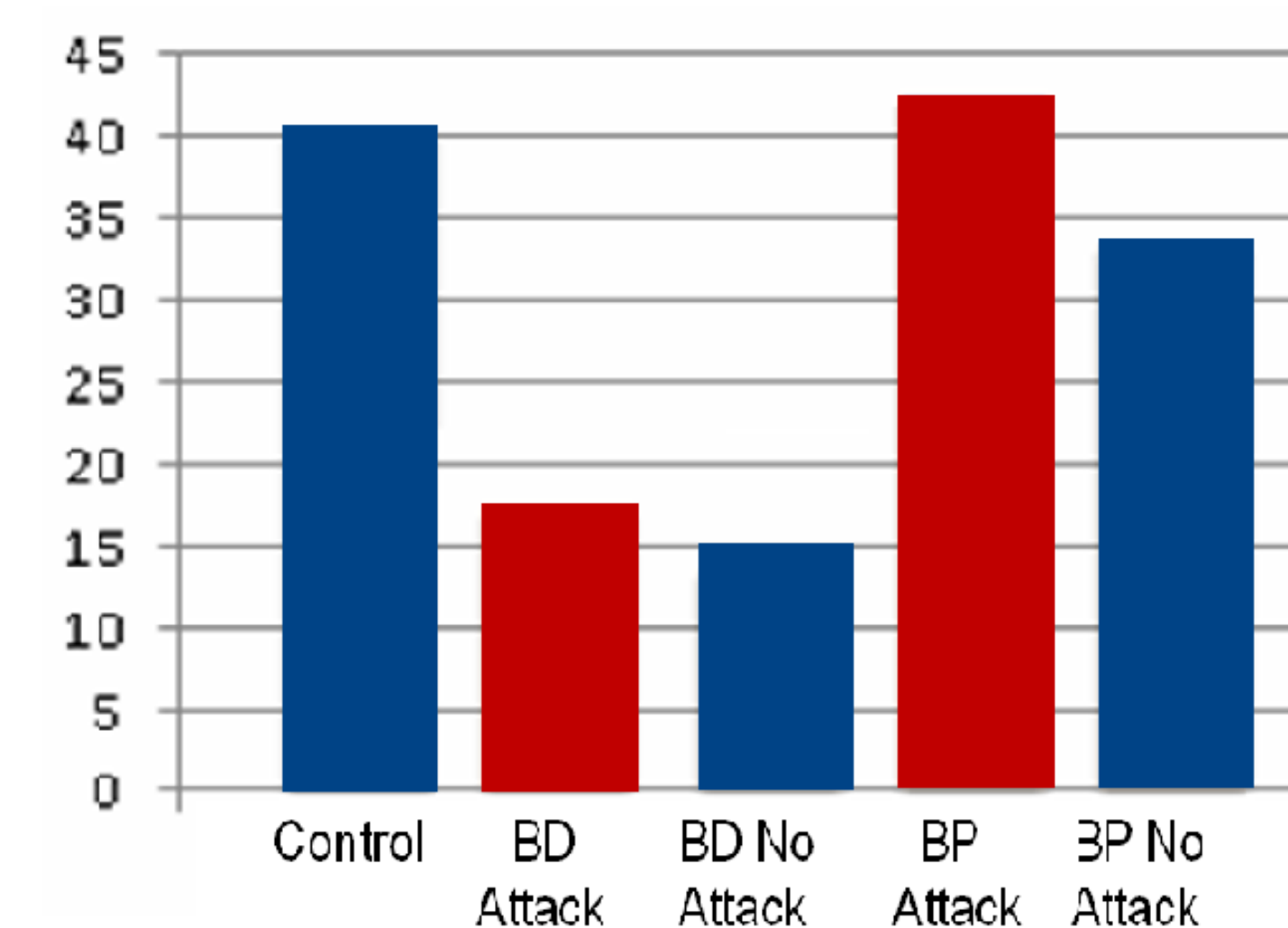
**Table 1. Demographic Characteristics of Research Participants.** The sample characteristics roughly resembled U.S. census data.

Sample	Control (N=89)	Blind Expert Prosecution (N=178)		Blind Expert Defense (N=177)		Subject Totals (N=444)
		No Attack (N=89)	Attack (N=89)	No Attack (N=86)	Attack (N=91)	
<b>Education</b>						
Some high	0%	0%	1%	1%	1%	<1%
High school	8%	9%	12%	10%	12%	10%
Some college	31%	19%	34%	27%	27%	28%
Associate	9%	9%	8%	14%	7%	9%
Bachelors	43%	46%	34%	42%	44%	42%
Masters	8%	15%	8%	3%	7%	8%
Professional	1%	0%	2%	2%	1%	1%
Doctorate	0%	2%	1%	0%	1%	<1%
<b>Gender</b>						
Male	44%	43%	47%	49%	57%	52%
Female	56%	57%	53%	51%	43%	48%
<b>Age</b>						
18-24	18%	15%	29%	16%	13%	18%
25-34	46%	45%	30%	40%	45%	41%
35-44	15%	21%	17%	20%	14%	17%
45-59	19%	11%	16%	16%	21%	17%
60+	2%	8%	8%	8%	7%	7%
<b>Race</b>						
White	88%	82%	80%	81%	78%	82%
Black	2%	7%	7%	9%	11%	7%
Native	0%	1%	1%	1%	0%	<1%
Asian	8%	9%	7%	7%	8%	8%
Pacific	0%	0%	1%	0%	0%	<1%
Other	2%	1%	3%	1%	3%	2%
<b>Ethnicity</b>						
Non-Hispanic	96%	98%	94%	93%	95%	95%
Hispanic	4%	2%	6%	7%	5%	5%
<b>Income</b>						
<\$10,000	7%	8%	12%	8%	8%	8%
10-30K	22%	24%	27%	15%	21%	22%
30-50K	29%	18%	24%	32%	22%	25%
50-70K	19%	21%	10%	22%	23%	19%
70-100K	16%	20%	18%	12%	16%	16%
>100K	7%	9%	9%	11%	10%	10%

## Results

Figure 1 shows the frequency of guilty verdicts by experimental condition.

**Figure 1. Percentage of Guilty Verdicts by Condition**



Further analysis indicated that attacking the non-blinded expert witness did not have a statistically significant effect, and so the conditions were collapsed into control, blind expert for the prosecution, and blind expert for the defense (Table 2).

**Table 2. Percentage of Guilty Verdicts by New Condition**

Verdict	Control (N=89)	Blind Expert Prosecution (N=178)	Blind Expert Defense (N=177)	Subject Totals (N=444)
Guilty	40%	38%	16%	30%
Not Guilty	60%	62%	84%	70%
Chi Square	29.406			
P-Value	<0.001			

The attack and demographic variables did not survive the model selection procedure. The final logistic model predicting the likelihood of a “not guilty” verdict contained the primary independent variable (presence or absence of blinded expert witness) and a constant.

**Table 3. Logistic Regression Results**

Predictor	B (SE)	P	Lower	Odds Ratio	Upper
Constant	3.87 (0.216)	0.073	-	-	-
Prosecution Blind Expert (1=present)	0.094 (0.265)	0.723	0.651	1.099	1.846
Defense Blind Expert (1=present)	1.285 (0.299)	0.001	2.022	3.615	6.537

## Discussion

**A blind expert for the defense more than triples the odds of a favorable verdict for the defendant.**

When a defense attorney uses a blinded forensic expert in a mock criminal trial, the odds of a “not guilty” verdict are 3.62 times greater than when not using a blinded expert ( $p < .001$ , 95% CI [2.022, 6.537]). There was no effect for the prosecution using a blinded expert witness.

The qualitative data indicate that the likely reason there was no significant difference between the blind expert for the prosecution and the control conditions was because of the higher standard of proof (“beyond a reasonable doubt”) in a criminal case compared to a civil case (“preponderance of evidence”). The former is too high of a burden to convict for many participants despite the presence of a blinded expert for the prosecution. As one mock juror stated when asked to explain their verdict: “I just don’t think that there is enough evidence to say it’s been proven beyond a reasonable doubt.”

## Future Directions

In order to confirm these results, this experiment should be replicated in the field. If field experiments are not possible, future research should, at a minimum, be designed with greater ecological validity by using a video stimulus rather than written vignettes. Such a video could allow more time to fully explain the concept of blinded expertise and ensure that the process is clear to jurors; this may lead to an effect for blinded prosecution experts. Additionally, future research should allow for jury deliberation, which would not only further increase validity, but would also help to determine whether the observed effects exist at the jury level (rather than just the juror level).

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