

Is Physical Evidence or Eyewitness Testimony More Persuasive in the Courtroom?

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Richard Alexander



The Riverside Rapist

- Richard Alexander was imprisoned based on eyewitness testimony
- DNA evidence confirms that the semen sample and pubic hair found at the crime scene was not his
- While in prison, attacks still occurred
- After over five years in prison, he was released

What is the topic of our study?

- When paired against each other, what evidence is more persuasive: Physical evidence or eyewitness testimonies?

Past Research Studies

- In 1979, Loftus found that eyewitness testimonies were the most persuasive evidence in the courtroom to a juror.
- In 2001, Skolnick examined the effectiveness of physical evidence and eyewitness testimony on mock juror decision making.

Past Research Studies (cont.)

- In the Skolnick study, the strength of evidence was varied. Strong evidence produced more guilty verdicts than weak evidence.
- Combining strong evidence of both types was no more effective than presenting strong evidence of either type.

Past Research Designs

- In the past, most research designs involving this topic have been designed by presenting one type of evidence at one time.
- Our design had the two types of evidence paired against each other at one time.

Our Design

- Students given written scenario of a murder case
- Scenarios differed on three factors
 - Physical evidence
 - DNA consistent with suspect
 - DNA not consistent with suspect
 - Eyewitness testimony
 - Eyewitness says suspect is the perpetrator
 - Eyewitness says suspect is not the perpetrator
 - Eyewitness familiarity
 - Familiar – Stepmother
 - Unfamiliar - Neighbor

Design of Experiment

	Eyewitness Testimony			
	Familiar		Unfamiliar	
DNA	No	Yes	No	Yes
No	n = 28	n = 27	n = 29	n = 30
Yes	n = 31	n = 28	n = 28	n = 29

Participants

- 230 Participants

- Jury eligible
- College students

- Gender

- 35% men
- 65% women

- Age

- Mean = 19.73
- Range = 17 to 27

- Race

- 86% White
- 7% Black
- 4% Asian
- 1% Hispanic
- 1% Other

ANOVA Source Table

Source	DF	F	P <	Eta Squared
Familiarity	1	2.49	.12	.011
Eyewitness	1	8.04	.005	.035
Physical	1	101.35	.0001	.313
F * E	1	0.77	.38	.003
F * P	1	0.41	.52	.002
E * P	1	2.26	.13	.010
F * E * P	1	0.00	.96	.000
Error	222			

Main Effects

- DNA ($F = 101.35, p < .0001$)
 - Yes .76
 - No .21
- Eyewitness ($F = 8.04, p < .005$)
 - Yes .56
 - No .41
- Familiarity of Eyewitness ($F = 2.49, p < .12$)
 - Familiar .54
 - Unfamiliar .44

Results

	Eyewitness Testimony			
	Familiar		Unfamiliar	
DNA	No	Yes	No	Yes
No	.18	.30	.17	.20
Yes	.68	.96	.60	.79

Conclusions

- DNA evidence was powerful
- DNA more persuasive than eyewitness testimony
- Would like to look at familiarity of eyewitness without DNA evidence

Limitations

- Script vs. real trial
- College students

Questions?

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