

# Jurors' Understanding of the Screening of Scientific Evidence

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## Abstract

A sample of undergraduates was provided with a short questionnaire evaluating their understanding of the trial system. We were primarily interested in how viewers and non-viewers of courtroom-based television differed on their understanding of how scientific evidence is screened. Viewers of such programming believed they understood how trials work better than non-viewers. Furthermore, viewers were more likely to correctly identify the judge as the 'Gatekeeper' of scientific evidence when given an array of other individuals to choose from; this finding was also true when singularly identifying the judge among a list of the same individuals.

## Introduction

Schweitzer and Saks (2007) demonstrated that viewers of forensic-science fiction believed they understood forensic science better and were more critical of forensic evidence than non-viewers.

However, it was also shown that these findings were specific to forensic evidence presented in trials when compared to courtroom-based TV. Thus, courtroom-based programming such as Law and Order or Cold Case is somehow different than forensic-themed (CSI, Bones, etc.) programs.

Like the research of Schweitzer and Saks, we were interested in establishing a point of reference for future work on courtroom-based television.

The following questions were the crux of our curiosity:

- How do viewers and non-viewers of courtroom-based TV differ with respect to selecting a Gatekeeper of evidence?
- Does gender affect who jurors perceive to be the Gatekeeper of evidence?
- Do viewers and non-viewers deem certain criteria as differentially important when evaluating evidence for admissibility?

## Methodology

*Participants:* A sample of 182 jury eligible Arizona State University undergraduates took part in the study for course credit.

*Materials:* Participants completed a questionnaire evaluating their consumption of courtroom-based TV, understanding of trials, and views about the admissibility of evidence.

*Manipulations:*

- Courtroom based TV Consumption: Viewers *vs.* Non-Viewers
- Gender

*Dependant Measures:*

- Jurors' understanding of trials (1-7 Scale ranging from Not at All to Very Well)
- Pick One Gatekeeper
  - *If you had to choose one person from the following list, who would you say is primarily responsible for determining whether evidence is included/excluded in a trial?*
  - *The people in this included the plaintiff, defendant, defendant's lawyer, plaintiff's lawyer, judge, and police.*

- Control Rating of Evidence Admissibility
  - *From what you know about trials, how much control do you think each of these people have over what evidence is admitted and what evidence is excluded?*
  - *Rating of Control was a 1-7 Scale ranging from No Control at All to Total Control*
  - *The exact same listing under the Pick One Gatekeeper measure applies.*
- Importance of Criteria for Determining the Inclusion/Exclusion of Evidence
  - *Rating scale from 1 to 7 (Not Important to Very Important)*

## Results

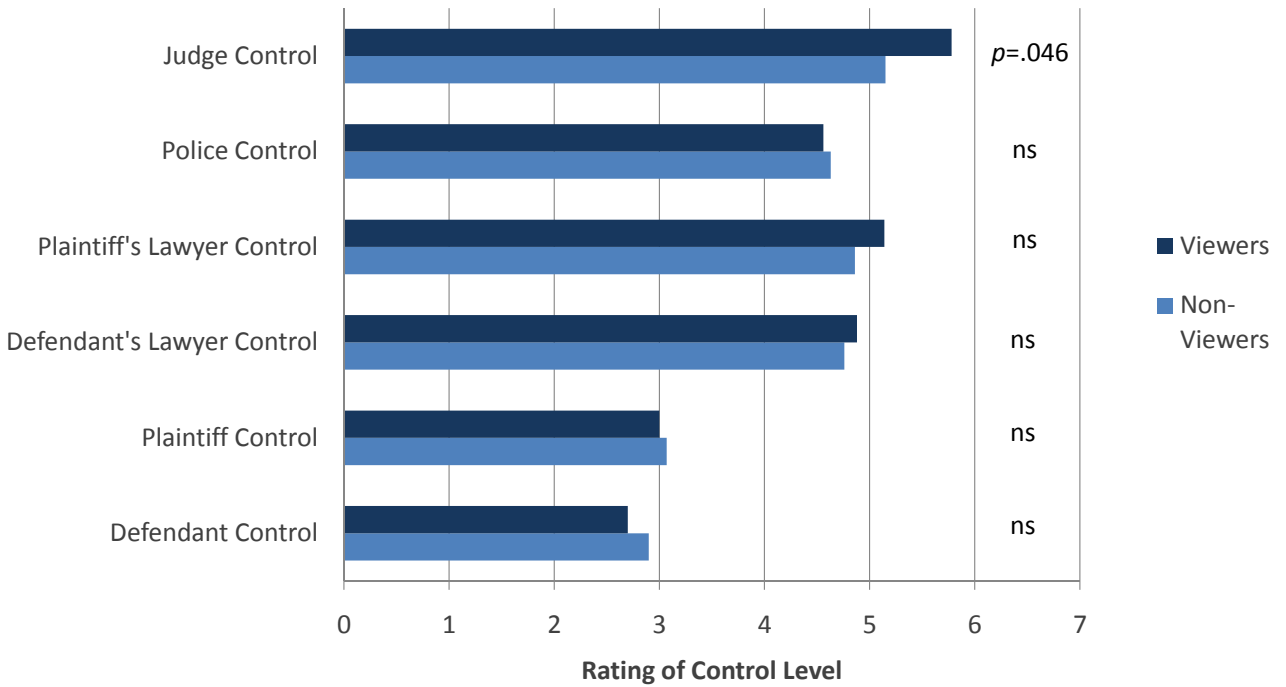
### *Preliminary Analyses*

As we had predicted, viewers of courtroom-based television report having a greater understanding about trials compared to non-viewers,  $t(161)=4.287$ ,  $p < .001$ . This important finding was necessary to further evaluate if this perception between viewers and non-viewers was actualized. Indeed, viewers and non-viewers differed when it came to correctly choosing the judge as the Gatekeeper of evidence:  $b=.489$ ,  $Odds\ Ratio=1.631$ ,  $Wald=8.152$ ,  $p=.004$ .

### *Courtroom-based Television Consumption and Ratings of Control of Evidence Admissibility*

To further evaluate the effect of courtroom-based television, we conducted a 2 (Viewers *vs.* Non-Viewers) x 6 (Control Rating of Evidence Admissibility) mixed factorial analysis of variance. There was a main effect of Control. However, a trend analysis revealed a significant Viewer x Control interaction trumping the main effect; viewers correctly selected the judge as possessing more (and the most) control when determining what constitutes admissible evidence as compared to non-viewers:  $F_{1, 160}=4.029$ ,  $p=.046$ . There were no other differences. This finding is shown in Figure 1.

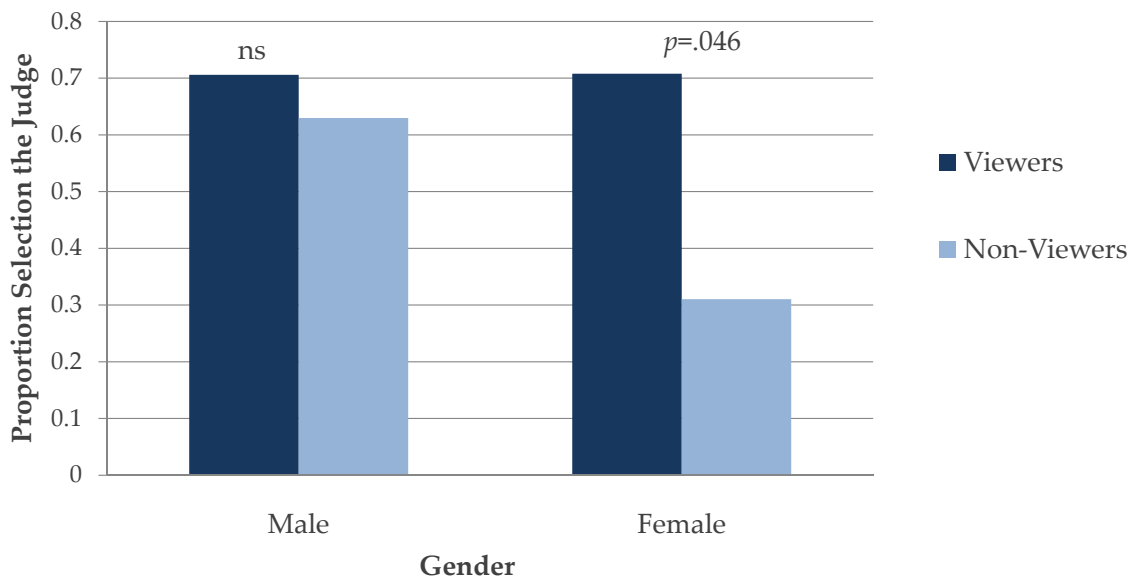
**Figure 1: Jurors' Perceived Control of Evidence Admissibility by Position**



*Effects of Gender and Viewing Courtroom-based Television on Selecting a Gatekeeper of Evidence*

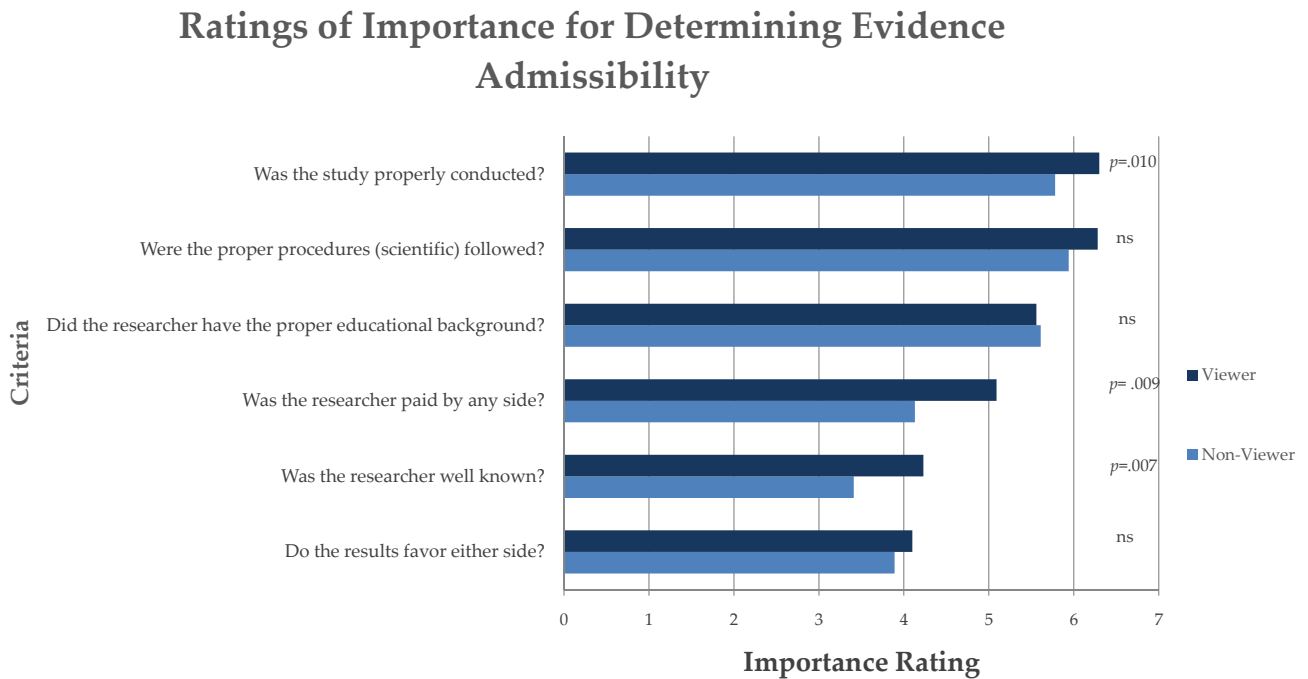
Gender by itself did not significantly predict whether or not jurors correctly selected the judge as the Gatekeeper of evidence:  $b = -.325$ , *Odds Ratio* = .722, *Wald* = .913,  $p = .339$ . However, there was significant Gender x Courtroom-based TV Consumption interaction  $F_{1, 151} = 4.055$ ,  $p = .046$ . No other differences of gender emerged. Figure 2 depicts the interaction.

**Figure 2: Gatekeeper Selection by Gender and Viewing Courtroom-based TV**



## Importance Ratings of Criteria Used to Establish Evidence Admissibility

Figure 3 demonstrates the observed differences among viewers and non-viewers of courtroom-based TV with regard to the criteria they believe evidence is evaluated. A series of *t*-tests revealed an effect on whether scientific studies were properly conducted,  $t(146)=2.622$ ,  $p=.010$ , whether a researcher was paid by either side  $t(146)=2.666$ ,  $p=.009$ , and whether the researcher providing the evidence was well known  $t(146)=2.752$ ,  $p=.007$ .



## Discussion

- In congruence with our hypotheses, those with a persistent diet of courtroom-based programming viewed themselves as having a better understanding about trials compared to non-viewers.
- Viewers' own perceived superior understanding of trials was shown to be accurate with their belief. When asked to singularly identify a Gatekeeper of evidence, viewers were more adept at correctly selecting the judge.
- When rating the control of officials to either include or exclude evidence, viewers and non-viewers differed significantly only when rating the judge's control. This finding suggests that viewers were more sensitive to the judge's important role in deciphering admissible evidence from less reliable/valid (excludable) evidence.

- A significant Gender x Viewing interaction was the only effect of gender observed. Males viewers, male non-viewers, and female viewers were not significantly different from each other when selecting a single Gatekeeper of evidence. However, female non-viewers were less likely to correctly select the judge as the Gatekeeper.
- Finally, viewers were more sensitive to knowing how well-known the researcher providing the evidence was, if the scientific study was properly conducted, and whether or not the researcher was paid by either side. These findings suggest that viewers, in general, may have been looking for signs that rendered the evidence provider a more or less credible source.

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