



# Eyewitness Accuracy: Can Conformity Negatively Influence Testimony Reliability?

Monica Rhodes

Faculty Advisor: Lora L. Jacobi, Ph.D.

Department of Psychology, PSY 497 \* Stephen F. Austin State University



## INTRODUCTION

Many factors can affect the accuracy of eyewitness testimony, such as improper questioning of witnesses (Wise, et al., 2007), contamination by conversing with other eyewitnesses (Mudd and Govern, 2004), and conformity to others witnesses' responses (Bregman and McAllister, 1982).

Proper questioning of witnesses is a main component to decrease eyewitness error. Things to be considered when questioning are law enforcement agents' authority, decreasing leading questions, time delay, and misinformation.

Past research on conformity has revolved around social influence. According to Cialdini & Goldstein (2003), accuracy is an important incentive for conformity. Research on sex differences show that females tend to conceal their competence more often and display compliance (Rosen & Aneshensl, 1976).

This study seeks to further our understanding of the links between eyewitness testimony and conformity by examining whether exposure to other witnesses' responses would affect the accuracy of eyewitness testimony.

## METHOD

### Participants

Participants were male (8) and female (51) college students ( $N=59$ ) from a midsized university in the southwest region of the United States, with a mean age of 19 years. The racial composition of participants varied as follow: Caucasian ( $n = 29$ ), African-American ( $n = 19$ ), Hispanic ( $n = 9$ ), and 2 participants selected "other" as their race.

### Measures

**Demographics.** Participants completed a short series of demographic questions. Information collected asked about participants' sex, age, ethnicity, and education level.

**Video Segment.** Participants in both conditions watched a 6 minute and 42 second video segment taken from the TV show *Cops* that depicted an interaction between two police officers and a suspect.

**Eyewitness Questionnaire.** Throughout the video segment, notable events were recorded, and a 30-item questionnaire was developed that included items ranging from general questions (i.e., ethnicity of officers), to specific questions (i.e., precise time of day, location of the crime). For each question, participants chose from 5 multiple choice answers. Additionally, for each question, participants were asked to indicate the certainty of their response, using a 5-point Likert-type scale from 1 (*not at all certain*) to 5 (*extremely certain*).

### Procedure

All participants viewed a short video segment that depicted an interaction between two police officers and a suspect. After viewing the video, participants were randomly assigned to complete either a conformity or control condition. Participants in the conformity condition were told that they were answering the questions last amongst a group of other "witnesses" and were able to see what they believed were the answers of other participants. In the conformity condition, select answers (e.g., the suspect's race) were accurate; however, for a large number of questions, all "prior respondents" chose an inaccurate response. Participants in the control condition answered questions without knowledge of others' answers. Conformity was assessed by the number of times participants conformed to an inaccurate answer. Additionally, accuracy of responses were compared across conditions.



## RESULTS

A multivariate analysis of variance (MANOVA) was conducted to determine the effects of conformity condition (control/conformity) and certainty level (dictomized by participants' responses as either high or low) on the combined dependent measure of eyewitness accuracy. There were main effects for condition [Wilk's  $\Lambda = .336$ ,  $F(3, 53) = 34.939$ ,  $p < .001$ ], certainty level [Wilk's  $\Lambda = .452$ ,  $F(3, 53) = 21.457$ ,  $p < .001$ ], as well as a significant interaction between level of certainty and condition [Wilk's  $\Lambda = .380$ ,  $F(3, 53) = 28.770$ ,  $p < .001$ ]. Univariate analyses of variance (ANOVA's) were subsequently conducted and revealed numerous significant findings.

In the control condition, certainty level was congruent across all accuracy measures: those with high levels of certainty were more accurate than those with low certainty. In the conformity condition, level of certainty was unrelated to eyewitness accuracy: respondents who were highly certain of their answers were no more accurate than those with low levels of certainty.

Contrary to expectation, participants in the conformity condition answered more questions correctly than those in the control condition. A corrected accuracy measure removed the "correct" conformity items from scores; the conformity group was still significantly more accurate and less likely to conform to incorrect answers than the control group.

For copies of this poster, contact **Monica Rhodes** at [rhodesma@titan.sfasu.edu](mailto:rhodesma@titan.sfasu.edu)

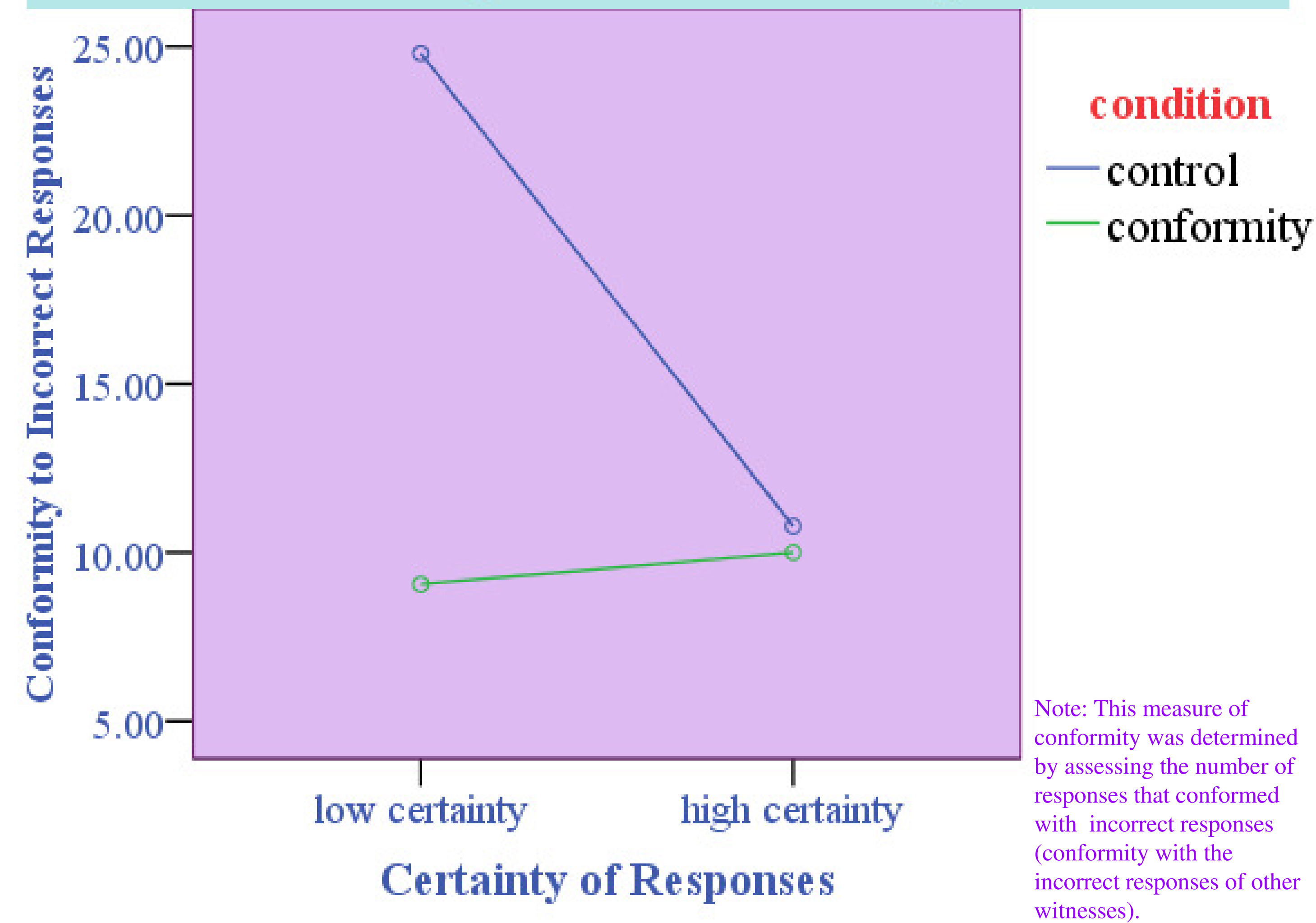
Poster presented at the Undergraduate Research Conference, Stephen F. Austin State University - April 22<sup>nd</sup>, 2010

## RESULTS

### The Interaction between Certainty Level and Total Number of Correct Responses



### The Interaction between Certainty Level and Conformity to Incorrect Responses



## DISCUSSION

The results found that exposure to others' responses significantly impacts eyewitness' responses. Similar to past research, the present study confirms theories of misinformation, improper questioning (e.g., Wise et al., 2007), and conformity to others' beliefs and responses (e.g., Bregman and McAllister, 1982). As predicted, the condition of participants and the level of their certainty significantly affected their accuracy of eyewitness testimony.

For those in the conformity condition, certainty of response was unrelated to accuracy. In contrast, for participants in the control condition, higher levels of certainty corresponded to higher levels of accuracy. This finding has significant implications for the criminal justice system. Eyewitness testimony is given great weight among jurors. Those exposed to others' responses may make incorrect statements while expressing high degrees of certainty, whereas those uncontaminated by others' responses express high certainty for correct responses and low certainty for incorrect responses. Participants in the experimental condition showed increased levels of conformity, as compared to those in the control condition.

Although gender differences were expected, the limitations of the sample size of male participants prohibited statistical testing. Future research should seek to replicate these findings and expand to consider gender, race, and age differences.

