# FROM OBSESSION TO CONFESSION: A FALSE CONFESSION PARADIGM IN THE MURDER OF JONBENET RAMSEY

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In this study, we used a fact pattern similar to the John Mark Karr scenario to examine perceptions of DNA and confession evidence. Specifically, we hypothesized that DNA evidence, confessor level of psychopathology, and presence or absence of *Miranda* protections would affect participants' perceptions of guilt and attitudes towards the interrogation process. One hundred nine undergraduates read a two-page summary based on John Mark Karr's confession. Summaries varied based on psychopathology of confessor, the presence or absence of DNA evidence, and the provision of *Miranda* warnings prior to confession. The DNA manipulation explained participants' attitudes towards specific aspects of the interrogation process. The importance of perceptions of forensic type evidence, specifically DNA, in our legal system is discussed.

### INTRODUCTION

Psychological evaluation of interrogations and the confessions they often produce has resulted in a significant number of published studies (Forrest, Wadkins, & Larson, 2006; Kassin & Gudjonsson, 2004; Kassin & Kiechel, 1996; Kassin & McNall, 1991; Gudjonsson, 2006; Kassin, Meissner, & Norwick, 2005; Leo, 1996; Ofshe & Leo, 1997). These studies have provided valuable insight into why an innocent person would confess to a heinous crime. To date, however, no studies have investigated voluntary confessions and the factors involved in their evaluations. Although infre-

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quent, voluntary self-incrimination occurs, and the false confession of John Mark Karr to the murder of JonBenet Ramsey has brought national attention to this legal and psychological event.

In his confession to JonBenet Ramsey's homicide, John Mark Karr offered himself to law enforcement as the killer by providing a voluntary confession. Lack of DNA evidence linking John Mark Karr to JonBenet Ramsey prevented the prosecution from taking this case to trial. Mr. Karr's legal status would almost certainly be different if he had provided his confession 25 years ago. At the time, DNA evidence was not yet an available and reliable form of evidence. As a result, this type of forensic evidence was not necessary to obtain a conviction. Today, however, DNA evidence can provide definitive proof of guilt or innocence.

The Warren Court's due-process revolution (Epstein & Walker, 2000), case law (Brown v. Mississippi, 1936; Colorado v. Connelly, 1986; Miranda v. Arizona, 1966), and social change (Bonsignore et al., 1989) have altered how we examine and evaluate confession evidence. We have moved from the assumption that a confession equates guilt to a search for additional evidence in order to confirm the validity of a confession. In John Mark Karr's case, his confession became a necessary, although not sufficient prerequisite for guilt. Specific corroborative evidence was needed, and the focus was on DNA confirmation. Research has found, however, that testimony alone lacks the power of DNA evidence. In a study conducted by Moffa (2006), corroboration in the form of testimony evidence was insufficient to convince participant-jurors of a confessor's guilt when no forensic-type evidence was available. This result shows a shift in our system of jurisprudence from the absolute belief in confession evidence to a more balanced evaluation of believability and confirmation (McCormick, 1972).

The Karr paradigm raises questions for an empirical evaluation of the voluntary confession: How are perceptions of a voluntary confession affected by DNA evidence, *Miranda* warnings, and mental illness? In the present study, we manipulated DNA corroboration, presence or absence of *Miranda* protections, and confessor level of psychopathology portrayed in the confession. We were pri-

marily interested in the impact of these factors on verdict, as well as perceptions of the reliability and probative validity of DNA and confession evidence.

# Psychopathology

Psychopathology is an important consideration in evaluating factors in various adjudicative contexts. Yarvis (2000) investigated psychological characteristics of defendants found guilty of a capital offense and the effect of psychopathology on prosecutorial and juror discretion. Defendants described as having poor reality testing, poor impulse control, or a history of physical abuse during childhood were most likely to be qualified as "special" and were more likely to receive a sentence other than death. In this study, jurors perceived mental illness as a robust mitigating factor in sentencing. As a result, significant effects were observed for qualitatively severe mental illness, such as a psychotic diagnosis. Conversely, Cochrane, Grisso, and Frederick (2001) examined the effect of diagnosis on pretrial disposition concerning competency to stand trial. Their findings indicated schizophrenia as the most likely diagnosis stemming from a competency evaluation. When prior findings on the relationship between perceptions of culpability and mental illness are interpreted in the context of a voluntary confession, it is reasonable to predict psychopathology would diminish the believability of the confessor. It is also reasonable to predict psychopathology would enhance perceptions of culpability, as individuals with mental illness are considered dangerous (Monahan, et al., 2001). In the context of the present study, we predicted attitudes towards the interrogation process would differ as a function of confessor psychopathology and provisions of Miranda warnings.

## Miranda Warnings

In *Colorado v. Connelly* (1986), Connelly voluntarily reported a homicide he had committed to Denver police. He waived his *Miranda* warning prior to confessing, and by all outward appearances, his confession was knowing, voluntary, and intelligent. Upon psychiatric evaluation, it was shown that Connelly was suffering from active psychotic symptoms at the time of his *Miranda* waiver and confession. From a clinical perspective, Connelly's judgment

was grossly impaired and cast doubt on the fidelity of the waiver and confession. The Supreme Court granted *certiorari* and held that Connelly's 5th Amendment due process right had not been violated. In the eyes of the law this meant that the absence of coercive interrogation practices demonstrated free will in offering a confession. Therefore, mental status or diagnosis was not dispositive for questions of voluntariness. For mentally incompetent individuals, this decision called into question legal protections against self-incrimination and *Miranda* warnings (Cheney, 1987).

Colorado illustrates the interaction of psychopathology and Miranda waivers in the context of a voluntary confession. The confessor had received the diagnosis of schizophrenia and had untreated symptoms at the time he confessed to a police officer he found on the street. The Miranda waiver was ultimately found to be valid and the confession was admissible, in part because no outside coercion was evident. The present study will test whether participants' perceptions of a Miranda waiver and confessor differ from the legal opinion of circumstances surrounding the waiver and confession in Connelly.

#### DNA Evidence

Media exposure to sophisticated forensic evidence, specifically DNA, has altered public perceptions of forensic-type evidence's reliability and utility to demonstrate a defendant's guilt or innocence (Moffa & Platania, 2007; Stinson, Smith, Patry, Fitzsimmons, & Finney, 2006). Given the probabilistic nature of forensic DNA analysis error (e.g., one in one million), this evidence is afforded a status of high reliability (Golding, Stewart, Yozwiak, Djadali, & Sanchez, 2000; Schklar & Diamond, 1999). Jurors, however, may have difficulty differentiating a highly reliable method of placing a defendant at the scene of a crime from one that demonstrates culpability. Criminal trials involving confessions may or may not include this type of forensic evidence. Likewise, a confession's validity may or may not be called into question (e.g., motion to suppress). The potential interaction of these evidence factors raises questions regarding their importance to jurors' decision making. In the present study, we predicted a result consistent with the CSI effect; i.e., that there will

be an overestimation of forensic evidence reliability (Smith, Stinson, & Patry, 2007; Stinson, Smith, Patry, Fitzsimmons, & Finey, 2005). In other words, forensic evidence like DNA may have a significant impact on participants' perceptions of guilt, and therefore co-vary with other factors like psychopathology and *Miranda* waivers.

The current study examines the relationship between psychopathology, *Miranda* waiver, and DNA evidence matching the voluntary confessor. To date, no research has addressed the issue of perceptions of voluntary confessions when the confessor is *prima facie* disbelieved. Additionally, we were interested in opinions about these factors outside of this paradigm. To this end, we apportioned part of our sample (n= 74) as a "survey only" condition.

Hypothesis 1: We predicted items measuring confessor guilt, validity of confession, and evaluations of DNA and confession evidence would differ as a function of DNA corroboration (matching or not matching the confessor).

Hypothesis 2: We predicted items measuring attitudes towards the interrogation of mentally ill suspects and Miranda would differ as a function of confessor psychopathology and provision of Miranda warnings.

*Hypothesis 3*: Experimental and survey only conditions would differ in evaluations of confession and DNA evidence.

## **METHOD**

# **Participants**

A convenience sample of one hundred eighty-two undergraduates (108 female, 74 male) participated in this study in exchange for course credit. All participants were between the ages of 17-34. Ninety-four percent were Caucasian and unmarried. More than half of the sample were politically liberal (68%); 30% were conservative. Fifty-four percent reported being related to a law enforcement officer. All participants were treated in accordance with APA ethical considerations.

#### Materials

Stimulus materials included a two-page summary depicting a voluntary confession. The Appendix displays one variation of our manipulation: italicized information denotes our independent variables. In order to preserve the ecological validity of the stimulus materials, level of psychopathology was operationalized as the specific characteristics put forward in the actual case. This meant presenting *some* of the behaviors listed as the diagnostic criteria for pedophilia (*DSM-IV*, 1994, p. 571-572).

Our dependent variables consisted of a twenty-six item questionnaire measuring evaluations of: confessor's guilt, validity of the confession, reliability of confession and DNA evidence, *Miranda* issues, and the process of interrogation and confession involving a suspect with a mental illness. Some participants (n = 74) served as a comparison group ("survey only" condition) completing only items concerning reliability and probative-validity of DNA and confession evidence, as well as attitudes towards interrogating mentally ill suspects.

# Design and Procedure

After participants provided consent, the experimental group (n = 109) first read the confession summary and responded to items relating to the facts of the summary and demographics. Summaries varied based on presence or absence of corroborative DNA evidence, provision of *Miranda* warnings prior to confession, and psychopathology evidenced by confessor. All other information remained constant. Participants in the survey only condition (n = 74) did not receive stimulus materials and completed only those items related to the reliability and validity of confession and DNA evidence, attitudes towards *Miranda*, and interrogations of mentally ill suspects. Summaries represented a 2 (DNA: match or no match) x 2 (psychopathology: demonstrated or not) x 2 (*Miranda*: provided or not) between-subjects design. Survey only data was examined as a third level of each independent variable.

#### RESULTS

Hypothesis Testing

Hypothesis 1 was supported. Log-linear analysis revealed a significant association of DNA condition with the item "true or false confession,"  $\chi^2(1, N=107)=6.54$ , p=.011. When DNA matched the confessor, 37% of participants believed the confession was true; when DNA did not match, only 13% believed it was true.

A significant association was also revealed for psychopathology with the item "true or false confession,"  $\chi^2(1, N=107)=5.01, p=.025$ . Thirty-one percent of participants in the psychopathology condition believed the confession was true, compared to 13% in the no psychopathology condition. A significant effect was found for DNA on verdict,  $\chi^2(1, N=107)=19.88, p=.000$ . When DNA matched the confessor, 72% of participants found the confessor guilty, compared to 22% when DNA did not match.

Hypothesis 2 was partially supported. Univariate ANOVA revealed a main effect of psychopathology on the item "a mentally ill person should not be interrogated," F(1, 178) = 3.58, p = .032,  $\eta^2 = .03$ . On a scale of 0 = strongly disagree to 7 = strongly agree, agreement was strongest in the no psychopathology condition (M = 3.91) compared to psychopathology (M = 1.98).

Univariate ANOVA revealed a significant DNA x *Miranda* interaction on the item "obtaining a confession is more important than providing *Miranda* protections," F(1, 175) = 4.94, p = .027,  $\eta^2 = .02$ . Participant agreement was highest in conditions where DNA corroborated the confession and *Miranda* warnings were provided. See Table 1 [opposite] for display of interaction means.

Hypothesis 3 was partially supported. One-way ANOVA revealed a main effect for DNA on the item "how reliable is DNA evidence," F(2, 179) = 5.45, p = .005. Scheffé's test of multiple comparisons revealed significant differences between survey only (M = 6.24) and DNA No Match condition (M = 5.65) at p = .008.

Table 1
DNA x Miranda Interaction

Obtaining a Confession is More Important than *Miranda* Protections (N = 181)

## Miranda

DNA	Provided	Not Provided
Match	3.26	2.56
No Match	2.38	3.32

Note. Higher scores indicated agreement on a scale of  $\theta$  = strongly disagree to 7 = strongly agree.

One-way ANOVA showed a main effect for DNA on the item "how reliable is confession evidence," F(2, 179) = 12.55, p = .000. Scheffé's test of multiple comparison revealed survey only condition differed significantly from DNA Match and No Match conditions (Ms = 4.24 vs. 3.22 and 3.15, respectively) at p = .000. DNA was perceived as more reliable outside the context of this scenario.

One-way ANOVA revealed a main effect for DNA on the item "how probative is confession evidence," F(2, 179) = 3.51, p = .032. Scheffé's test of multiple comparisons revealed significant differences between survey only and DNA No Match condition (Ms = 4.12 vs. 3.43, respectively) p = .034. Overall, differences between survey only and experimental conditions were a function of DNA corroboration. All ratings were made on a scale of  $0 = strongly \, disagree$  to  $7 = strongly \, agree$ . See Table 2 [below] for display of differences between means on these dependent measures.

Table 2
Participant Ratings of DNA and Confession Evidence:
DNA v. Survey Condition

Participant Ratings	DNA	Survey
How Reliable is DNA Evidence?	5.65	6.24
How Reliable is Confession Evidence?	3.22	4.24
How Probative is Confession Evidence?	3.43	4.12

Note: Judgments were made on 8-point scales ( $0 = not \ at \ all \ reliable/probative to 7 = very \ reliable/probative)$ . Means are significantly different at p < .05.

## **DISCUSSION**

These findings demonstrate the importance of forensic type evidence, specifically DNA, on judgments of verdict and evidence credibility. In a paradigm based on a situation involving an almost indisputably false confession, decisions of culpability and validity of confession judgments were explained by the DNA manipulation. Participant determination of confessor guilt and validity of confession were a function of exposure to the DNA condition when this evidence matched the confessor. Not only did DNA drive verdict choice and evaluations of confession, but it also interacted with *Miranda* manipulations on participants' evaluation of obtaining a confession or provision of *Miranda*. Mean ratings differed as a function of DNA match. Disagreement was most pronounced when DNA did *not* match, even when warnings were provided. Presence or absence of *Miranda* warnings was important, but not as important as DNA evidence.

Results indicate in general, participants' evaluations of forensic-type evidence, specifically DNA, were considerably higher than confession evidence. Consistent with the *CSI* effect, both survey only and experimental condition mean ratings of reliability and probative validity of DNA evidence were high. When these perceptions were organized within the experimental scenario, ratings decreased. When evidence relating to culpability is ambiguous or circumstantial and a confession is voluntary, participants were less reliant on the "concrete" confession evidence and focused more on the ambiguity, or lack of evidence. DNA existed in the "no match" condition, as did the confession, but guilt was not attributed to the confession was overwhelmingly driven by DNA corroboration. This finding provides evidence for a culpability or pro-prosecution bias concerning forensic-type evidence (O'Neil, 2007).

The role of psychopathology and *Miranda* warnings in participants decision-making process was important, but less so than DNA. These participants' favorable attitude towards the interrogation of mentally ill defendants may be due to the moral import of the offense (sexual assault and murder). The relationship of DNA

to other types of evidence and the relationship to verdict seemed to drive participant's evaluations of other factors relating to the trial. Participants seemed to organize their evaluation of fact patterns in terms of their perception of the most salient factors relating to the ultimate issue.

Why would mean ratings of reliability and probative validity of DNA evidence be higher than confession evidence? Patterns in these data suggest when evidence indicates guilt, it is assigned more probative weight. Conversely, when evidence appears exonerative it is relegated to a lesser probative status. Given the specific facts of the paradigm, a conviction bias may have emerged, whereby participants seek evidence to confirm what is perceived as necessary to do justice.

To our knowledge, this study is the first to examine a voluntary confession paradigm and the factors involved in their evaluations. It is important to point out, however, that the magnitude of participant-jurors' responses to various evidential issues in this type of research study can be exaggerated due to the limited amount of information made available to them. This type of problem is not atypical in laboratory research summarizing complex legal and psychological information. In this study, we attempted to minimize this problem by using ecologically valid materials including: the biography of confessor, details about the abduction, confession, and the crime. We are confident that our approach to examining this topic drew on the strengths of both internal and external validity; however, we are also cognizant of researchers' concerns when generalizing results involving judicial decision making (Bornstein, 1999; Myers & Greene, 2004). The value of this study is the insight offered into the influential effect of DNA in the presence of other legal and psychological factors, e.g., psychopathology and Miranda warnings. Future research should address the configuration of evidence type and fact patterns to assess discernable relationships and other significant operating factors.

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#### **APPENDIX**

In 1995, a child was found dead in the woods behind her home. Police immediately focused on those who had a close relationship with her. After eliminating her parents, acquaintances, and relatives, the investigators were frustrated. Although they had DNA, they did not find a matching suspect. Richard Tolman confessed 8 years after the killing.

The following is a summary of a confession provided by Richard Tolman, a 39-year-old schoolteacher. This man was never a suspect in the original murder investigation, although he had limited contact with the victim. Everything about his confession was voluntary, including making contact with investigators. *Mr. Tolman received and waived his Miranda warnings before making any statements*. Richard Tolman was interrogated, but customary interrogation tactics were not needed. Mr. Tolman provided detailed information to investigators about how, when, where, and why he allegedly committed this act. Mr. Tolman insists, however, the death was an accident and not premeditated.

# Biography of Confessor

Richard Tolman was a married 5th-grade teacher at the time of the murder. He had no children of his own. He had no contact with law enforcement until 8 months after the murder, when he was charged with possession of child pornography. Investigators found pictures of the victim, clothed, on his computer. A plea-bargain and 5 years of probation kept Mr. Tolman out of prison. He had prior mental health contact, and was prescribed benzodiazepines for anxiety. A provisional diagnosis of pedophilia was charted, but Mr. Tolman did not satisfy all diagnostic criteria.

#### The Abduction

**Investigator:** Tell us how you got access to the victim.

**Tolman:** I gained her trust gradually. I saw her every once in a while because of my job.

I loved her very much and didn't want to hurt her. The day this happened, I couldn't resist anymore so I told her I was supposed to bring her home and she came with me. We had a special bond, her and I. I never meant to hurt her. I gave her a drink with diazepam (valium) crushed up in it and she got sort of lethargic. I knew it was my responsibility to care for her now, since she was so groggy, but I couldn't stop myself anymore. She was beautiful to me. I took her to my apartment.

## The Homicide

**Investigator:** Tell us about how she died.

Tolman: <tearful> I got angry when she resisted me. I think she actually hit or scratched my face. I also had klonopins (a benzodiazepine) and thought she would calm down if I mixed more in her drink. I said I was sorry and let her drink more while she watched TV. I started to make love to her again and she just didn't respond, like she was ignoring me. But then I realized her breathing was really shallow. I was so nervous I thought I hurt her. I was afraid that she would blame me and hate me for hurting her. I wanted to show her how much she meant to me, but I just didn't know what to do. I knew she loved me. I saw how she looked at me at school, so I was confused when she resisted. After we made love, I was hugging her and realized her breathing stopped. We got back in the car and drove to this area of woods that connects to her back yard. It was in the woods, about 100 yards from her back door, that I tucked her body into the ground and covered her.

# DNA and Details of the Crime

When this crime took place, there was extensive media coverage. Although case-sensitive details were guarded, much information was nonetheless available. DNA was recovered from underneath the fingernails of the victim. There was no evidence of sexual assault other than small vaginal abrasions. No semen was recovered from the victim. Toxicology screenings showed no evidence of drugs in the victim's system. Cause of death was strangulation by ligature. *DNA found on the victim matched Richard Tolman*.

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