

INVESTIGATING PROSECUTORIAL TUNNEL VISION: AN EXAMINATION OF
CONFIRMATION BIAS IN PROSECUTORS' EVALUATIONS OF CRIMINAL CASE
EVIDENCE

by

HANNAH S. LIND

JENNIFER COX, COMMITTEE CHAIR
WILLIAM HART
MICHAEL PARDO

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ABSTRACT

Prosecutorial “tunnel vision” is an area of interest in the U.S. criminal justice system that is gaining increased attention as more and more wrongful convictions are brought to light. Legal scholars have raised concerns regarding the possibility that prosecutors are failing to recognize and/or disclose to the defense any knowledge of evidence that may exonerate the defendant, a requirement established by U.S. Supreme Court case *Brady v. Maryland*. This tunnel vision is considered to be due in part to the manifestation of confirmation bias, a well-documented phenomenon regarding the search for and interpretation of information. The current study investigates whether and to what extent prosecutors demonstrate confirmation bias in their review of evidence in a hypothetical homicide case. Active prosecutors were recruited via email and exposed to a fictional arrest report. After reporting their initial impressions of suspect guilt, participants were randomly assigned to three groups, manipulating exposure to new evidence by valence (inculpatory, exculpatory, and ambiguous). Participants evaluated the evidence in terms of credibility and degree of incrimination. Convergent with prior literature, it was hypothesized that initial ratings of guilt would predict case processing decisions and final impressions of guilt, but that this relationship would be mediated by evaluations of evidence credibility/incriminating power, evaluations which in turn would be moderated by evidence valence. Data from the study did not support the hypothesized moderated mediation model. Results indicated that prosecutors make case processing decisions based on appraisals of evidence that stand independent of initial impressions of suspect guilt. Implications regarding prosecutors’ objectivity, cognitive flexibility, and adherence to *Brady* are discussed.

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INTRODUCTION

The most powerful agent in the United States criminal justice system is, objectively, the prosecutor (Jacoby & Ratledge, 2016). Although laws specify what constitutes as criminal behavior, and how such behavior must be punished, the practical application of these laws is largely within the purview of the prosecutor, who in the United States, is typically afforded total discretion in accepting or declining cases for prosecution, diverting offenders to alternative programs, selecting charges, and dismissing charges or cases entirely (Jacoby & Ratledge, 2016). Ideally, prosecutors apply the law impartially in the pursuit of justice. However, a prosecutor is a human being like any other, and thus susceptible to the same irrationalities and fallibilities of judgment as any other. Immense pressure to close cases can facilitate a sort of “tunnel vision” in the criminal justice system resulting in a dogged pursuit of a presumed offender that is present from investigation to prosecution. Findley and Scott (2006) describe this tunnel vision as a focus on a particular conclusion, i.e., the guilt of a suspect, which becomes a “lens” through which all evidence in a case is filtered (p. 292). All evidence that contradicts the accepted conclusion of guilt is overlooked or disregarded as “irrelevant, incredible, or unreliable” (Findley & Scott, 2006, p. 292).

Psychologists and legal scholars describe the tunnel vision that clouds judgment and guides legal decision-making as caused in part by *confirmation bias*, a well-documented phenomenon regarding the search for and interpretation of information (Bandes, 2006; Burke, 2007; Findley, 2012; Findley & Scott, 2006; Martin, 2002; Rassin et al., 2010). Subsumed by

this umbrella term is the tendency to seek out information that confirms our beliefs, ignore seemingly contradictory information, and interpret ambiguous information as confirmatory of initial appraisals. Considered in the context of prosecutorial discretion, these propensities may manifest as a fixation on incrimination and a failure to consider alternative scenarios which is altogether problematic, particularly when innocent people are improperly pursued by the court system and wrongfully convicted. Between the years of 1989 and 2017, the National Registry of Exonerations (2017) recorded a total of 2,161 exonerations of wrongfully convicted individuals. Of the 139 exonerations recorded in 2017 alone, 84 cases involved “official misconduct” (National Registry of Exonerations, 2017). Official misconduct is a term applied to various forms of investigative and prosecutorial misconduct, but the National Registry of Exonerations (2017) recognizes police and prosecutorial failure to disclose exculpatory information as the most frequent misconduct reported.

Prosecutorial disclosure of material (pertinent) exculpatory evidence to the defense is mandated by the Supreme Court case *Brady v. Maryland* (1963). A failure to recognize exculpatory information when it is encountered would certainly hinder prosecutors’ ability to fulfill the *Brady* requirement, and if confirmation bias is indeed involved, more willful violations of this requirement could be precipitated by prosecutors’ evaluations that such evidence is lacking in credibility or strength, and is thus, immaterial. When the exculpatory evidence in question may cast reasonable doubt on a defendant’s guilt, its suppression can be devastating. With more comprehensive understanding of whether and to what extent prosecutors demonstrate confirmation bias in their evaluations of evidence and subsequent decision-making, we may be better able to guard against miscarriages of justice.

The Mechanisms of Confirmation Bias

Since the 1970s, a wealth of research devoted to the issue of confirmation bias has accumulated, detailing the various ways confirmation bias affects our perceptions of self and others, the ways we consider and respond to various arguments, and how we remember information to which we have been previously exposed (see Nickerson, 1998 for a review). One fundamental component of confirmation bias is the tendency to seek out information that confirms preexisting beliefs or choices. Similarly, confirmation bias involves active avoidance of contradictory information (Koriat et al., 1980). Together, these cognitive processes are referred to as *selective exposure*. Selective exposure is generally understood in the context of Festinger's (1957) dissonance theory, which holds that people experience cognitive distress in the face of disconfirming evidence, especially after making an irreversible decision. Selective exposure essentially works to proactively avoid dissonance, insofar as we seek only that which supports our views and choices, and actively avoid that which casts doubt on what we hold to be "right."

Selective exposure has been observed in hypothesis-testing contexts, with one of the first formal examinations conducted by Wason (1966, 1968). Wason tested formal reasoning processes in several ways, most notably with a card selection task which required participants to determine whether a set of four cards adhered to a given rule (e.g., "All cards with a vowel on the front have an even number on the back"). Results showed that participants tended only to test the rule by flipping over cards that could serve to prove the rule, failing to test cards that could very well disconfirm the rule. Similarly, social psychology research suggests that, after identifying an opinion on a polarizing issue (e.g., gun control), people are likely to select confirmatory sources of information (as opposed to contradictory sources) when given the

chance to pick further reading material on the matter (e.g., Frost et al., 2015; Jonas et al., 2001; Westerwick et al., 2017).

Confirmation bias research has additionally examined how information might be selectively interpreted. When presented with both supporting and opposing arguments, people generally appraise supporting arguments as more credible, and opposing arguments as less so (Lord et al., 1979; Metzger et al., 2010). There has also been support for the idea that people are more likely to interpret ambiguous information in ways that serve their predetermined conclusions (Ross & Anderson, 1982). For example, one study examining the decision-making of physicians faced with an ambiguous medical complaint (e.g., non-specific chest pain) found that early judgments of likely etiology influenced the evaluation of incoming information, leading to increasingly more confident judgments and final diagnoses, despite persistent ambiguous and conflicting medical information (Kostopoulou et al., 2009).

Confirmation Bias in Criminal Justice Contexts

Confirmation bias has been examined in various criminal investigation contexts, and its influence has been demonstrated time and again. For example, Rassin et al. (2010) found that law students tasked with ordering additional investigations in a criminal case are more likely to employ investigative tactics that serve to confirm guilt, rather than explore alternative scenarios (i.e., engage in selective exposure). Both investigators and laypeople (such as college students) are also more likely to determine a criminal suspect is guilty when either presented with an initial hypothesis of guilt, or when asked to articulate such a hypothesis themselves (Ask & Granhag, 2005; O'Brien, 2009). However, this bias decreases when instructions are given to actively consider why one's presumption of guilt may, in fact, be wrong (O'Brien, 2009). Further, in two studies of police and police trainees' evaluations of evidence, Ask and Granhag (2007) and Ask,

Rebelius, and Granhag (2008) found participants rated evidence that was disconfirming of guilt as less reliable than evidence that confirmed guilt, and also generated more arguments to question its reliability.

Confirmation bias in investigative contexts also manifests when investigators, forensic experts, polygraph examiners, and other “fact-finding” individuals are given confession information or are otherwise led to believe in the guilt or innocence of a suspect (Kassin et al., 2013). As a result of exposure to this contextual information, professionals’ interpretations of evidence may yield corroborative results that incriminate or exonerate the suspect in question. In a study regarding the influence of contextual top-down processing on detection of fingerprint matches, Dror, Péron, Hind, and Charlton (2005) exposed a sample of undergraduate students to emotional background stories of crimes and explicitly disturbing photographs from crime scenes, as well as subliminal messages. The data suggest participants were affected by these top-down manipulations, as they were more likely to make fingerprint match judgments, implicating a given suspect. In later studies, Dror, Charlton, and Péron (2006) and Dror and Charlton (2006) demonstrated that even in cases where latent print experts had previously made “match” or “no-match” determinations from pairs of fingerprints, when the experts were subsequently presented with biasing information that suggested the identity of a criminal was known (e.g. the suspect had confessed, or the suspect was not the culprit) the experts would then align their match determinations so as to confirm the known outcome.

In regard to the selective interpretation of ambiguous evidence, one study found police officers’ initial beliefs of guilt significantly predicted their evaluations of three types of ambiguous evidence (facial composites, handwriting samples, and implication by informant) as incriminating (Charman et al., 2017). Additionally, Eyal et al. (1994) found that a sample of

Israeli polygraph examiners was more likely to deem ambiguous test results as conclusive indicators of guilt when told that the examinee ultimately confessed.

Despite research that supports confirmation bias interferes with criminal justice investigations, there has been no systematic examination of confirmation bias in prosecutorial decision-making specifically. It could be anticipated that the very knowledge that a suspect has been identified in a criminal case would serve as working hypothesis for prosecutors (also called a “conditional reference frame,” Koehler, 1991), one which prosecutors would serve to confirm in their evaluation of evidence and throughout the course of prosecution. Further, social science research has not attempted to answer the question of how prosecutors typically evaluate and act on evidence that favors defendants in criminal cases. A failure to disclose this evidence to the defense attorney in a criminal proceeding is not only irresponsible, it is considered prosecutorial misconduct, as it violates the *Brady* mandate. Some legal scholars (Weeks, 1997; Gurwitch, 2010) have suggested that in a bid to “disincentivize” *Brady* violations, prosecutors should be held personally liable, or indictments should perhaps even be dismissed, but such proposals assume or require willful intent on the part of prosecutors who violate the *Brady* rule. Research demonstrating the pervasive effects of confirmation bias in the criminal justice sphere would suggest that prosecutors may simply be failing to detect exculpatory evidence, or may be discounting its worth, believing it immaterial to the determination of guilt or innocence. Some legal scholars such as Keith Findley (see Findley & Scott, 2006 and Findley, 2012) do recognize this possibility, and have postulated that prosecutors fail to recognize and/or report exculpatory evidence due to confirmation bias. However, there is a dearth of empirical support for this claim.

Study Aims and Hypotheses

The current study investigates whether and to what extent prosecutors are subject to confirmation bias in a legal decision-making context, which is theorized to contribute to tunnel vision in prosecution. Prosecutors were introduced to a fictional criminal case via an arrest report and asked to report their initial belief in a suspect's guilt. Prosecutors were then randomized to one of three groups, and exposed to either new inculpatory, ambiguous, and exculpatory evidence in the case, of which they were prompted to report evaluations of credibility and incriminating power. Subsequently, prosecutors were asked to report their charge decisions and final ratings of suspect guilt. It was hypothesized that prosecutors would be susceptible to confirmation bias which would affect how they evaluate criminal case evidence and ultimately make case processing decisions. Specific hypotheses were as follows:

H1: Prosecutors' initial ratings of suspect guilt would significantly predict final case processing decisions and overall impressions of the case, such that prosecutors who articulate stronger beliefs in suspect guilt would be more likely to proceed with charges, more likely to select charges of a greater severity, more likely to rate the entire body of evidence as a strong case against the defendant, and more likely to rate the suspect as guilty after consideration of all the evidence. Prosecutors who articulated stronger beliefs in suspect innocence would likewise be less likely to proceed with charges, more likely to rate the entire body of evidence as a weak case against the defendant, and more likely to rate the suspect as innocent after consideration of the evidence.

H2: The relationship between initial ratings of suspect guilt and final case processing decisions/overall case impressions would be mediated by prosecutors' evaluations of the credibility and the incriminating/exonerating power of the new evidence to which they would be

exposed (see Figure 1). That is, the more strongly the prosecutors initially believed in the suspect's guilt/innocence, the more likely they would be to evaluate the evidence as confirmatory of their initial belief, and in turn report case processing decisions and overall case impressions that supported their initial guilt/innocence ratings.

H3: The hypothesized evidence evaluation mediators would be further moderated by the valence/type of the new evidence reviewed by prosecutors (inculpatory, exculpatory, and ambiguous; see Figure 1). Specifically, the strength and direction of the relationship between prosecutors' initial impressions of guilt and their evaluations of the credibility and incriminating/exonerating power of new evidence would depend on whether the evidence in question was objectively confirmatory or contradictory to prosecutors' initial impressions of guilt. As evidence evaluations would be directly affected by this evidence type moderator, prosecutors' final case processing decisions/overall case impressions would thus be indirectly affected. For example, prosecutors who articulated a strong initial rating of suspect guilt would evaluate inculpatory evidence as more credible and exculpatory evidence as less credible. They would also rate inculpatory evidence as strongly incriminating, exculpatory evidence as only weakly exonerating, and rate ambiguous evidence as more incriminating than exonerating. Thus, these prosecutors would be more likely to proceed with charges, select charges of a greater severity, rate the entire body of evidence as a strong case against the defendant, and rate the defendant as guilty.

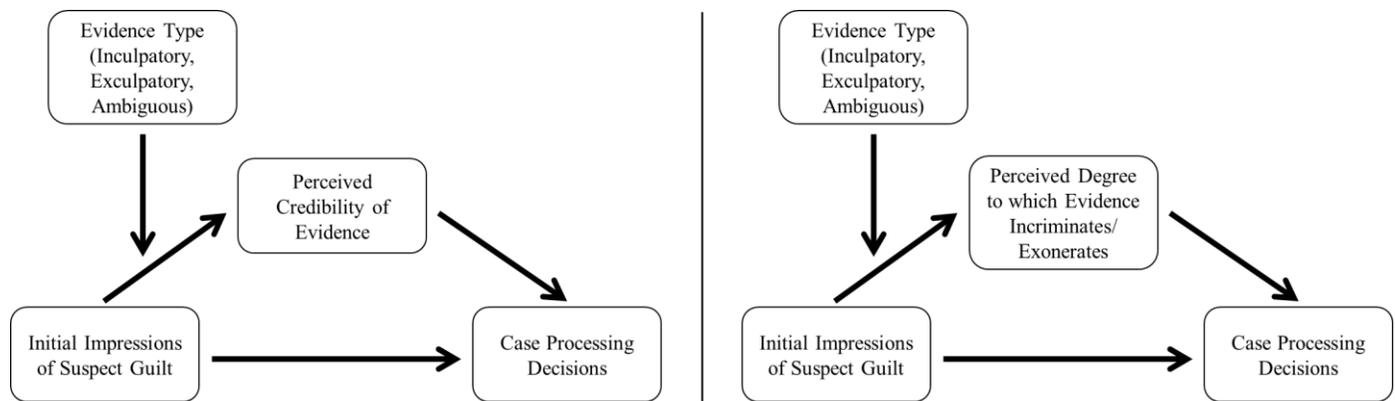


Figure 1. Hypothesized moderated mediation models

An exploratory analysis was planned to examine whether biased evaluations of evidence would predict prosecutors’ decision-making regarding a plea bargain, i.e., whether to offer a plea, and how severe or lenient a plea to offer. The impact of confirmation bias on this particularity of prosecutorial decision-making is thus far unexplored in the literature, and no hypothesis was volunteered *a priori*. An additional exploratory analysis was planned to examine if prosecutors’ self-reported intention to disclose evidence to the defense can also be explained by the moderated mediation model detailed in *H1-H3*, or if prosecutors would acknowledge a need to disclose exculpatory evidence regardless of initial guilt ratings and how they evaluate new evidence. Prosecutors who indicated that they would disclose evidence were asked to report at what point in case processing they would disclose, and exploratory analyses were planned to investigate if and how prosecutors’ initial impression of guilt and evidence evaluation are associated with this temporal decision.

METHODS

Participants

Prosecutors nationwide were recruited via email. Initially, a form email was sent to prosecutors that included a solicitation briefly describing the study as an investigation of prosecutorial decision-making in a homicide case. However, this solicitation was changed to describe the study as one concerning an unspecified criminal case, as prosecutors without homicide experience were responding that they believed themselves ineligible to participate (a characteristic which did not actually disqualify prosecutors from participating). A link to the study itself was included at the end of the solicitation. Any active prosecutors interested in participating were eligible for the study; there were no criteria for exclusion.

Just over half ($n = 52, 53.2\%$) of participants identified as male, and nearly all participants ($n = 92, 94.8\%$) identified as White. This is somewhat inconsistent with the general demographic makeup of the U.S. prosecutor population, which is predominantly comprised of White men (nearly 80% of elected prosecutors; Women's Donor Network, 2019). However, the sample was predominantly comprised of prosecutors hired to their positions ($n = 78, 80.4\%$), as opposed to elected/appointed, which may account for the greater proportion of participants identifying as women. The average reported age was 41.20 ($SD = 10.23$; range of 24-70), and the average number of years working as a prosecutor was 10.79 ($SD = 7.40$; range of 1-35). Over half ($n = 51, 52.58\%$) reported having passed the bar exam in the last decade. The geographic regions most heavily represented were the West North Central and Pacific regions (each

claiming 19.6% of the sample). See Table 1 for a complete examination of sample characteristics.

Table 1

Characteristics of final sample of prosecutors (N = 97)

Characteristics	Statistic
	<i>Frequency (%)</i>
Gender (% male)	52 (53.6%)
Race	
White	92 (94.8%)
Asian/Asian American	1 (1.0%)
Multiracial	2 (2.1%)
Other	2 (2.1%)
Hispanic/Latinx Ethnicity (% yes)	4 (4.1%)
Geographic Region	
New England	5 (5.2%)
Mid-Atlantic	13 (13.4%)
East North Central	9 (9.3%)
West North Central	19 (19.6%)
South Atlantic	6 (6.2%)
East South Central	1 (1.0%)
West South Central	12 (12.4%)
Mountain	13 (13.4%)
Pacific	19 (19.6%)
Political Affiliation	
Democrat	34 (35.1%)
Republican	41 (42.3%)
Libertarian	1 (1.0%)
Other	4 (4.1%)
None	17 (17.5%)
Type of Position	
Elected	13 (13.4%)
Appointed	6 (6.2%)
Hired	78 (80.4%)
Specialized Prosecution Unit? (% yes)	41 (42.3%)
Estimated % of Cases Closed Per Year	
0-10%	2 (2.1%)
11-25%	2 (2.1%)
26-50%	15 (15.5%)
51-75%	28 (28.9%)
76-90%	35 (36.1%)
91-100%	9 (9.3%)

	<i>Mean (SD; Range)</i>
Age	41.20 (10.23; 24-70)
Years Working as a Prosecutor	10.79 (7.40; 1-35)
Homicide Cases Worked On	10.58 (19.67; 0-150)

All participants were randomly assigned to one of three experimental groups, which differed in terms of the valence of evidence to which they will be exposed after indicating initial impressions of suspect guilt (see Case Materials and Procedures below). The Inculpatory group included 41 participants, the Exculpatory group included 31 participants, and the Ambiguous group included 25 participants.

Materials

Case Materials

Case materials pertaining to a fictional homicide case were presented via Qualtrics Online Survey Software, an online platform. Adapted from O'Brien (2009), materials included a police arrest report, reports from forensic science experts (e.g., a ballistics report, fingerprint analyses), findings from the execution of a search warrant, and witness statements relevant to the case at hand. The case in question was a homicide case, as the “stakes” are highest in such a case, and prior research suggests that the more severe the crime, the more likely those evaluating evidence will demonstrate confirmation bias (Dror et al., 2005; Rassin et al., 2010).

All participants first reviewed the arrest report, which introduces the case at hand, the primary suspect, and a summary of the investigation thus far. In reading the arrest report, participants learned that the case itself concerns a middle-aged male victim, Elliot Marks, who is found dead by his housekeeper early one morning in a fictional town in the United States. The investigation leads detectives to suspect that Bill Briggs, a man who was fired from a landscaping job on Marks' property, is the perpetrator. Participants were then exposed to two

pieces of “new evidence” that hypothetically became available in the case post-arrest; depending on the group to which participants have been randomly assigned, they either reviewed two pieces of explicitly inculpatory evidence, two pieces of explicitly exculpatory evidence, or two pieces of ambiguous evidence. The two pieces of inculpatory evidence include an eyewitness identification of Briggs, and forensic evidence that places Briggs at the scene of the crime. The two pieces of explicitly exculpatory evidence include a witness statement that clearly gives Briggs an alibi for the time of the homicide, and a witness statement that places another individual at the scene of the crime.

Ambiguous evidence, as previously described, may be suggestive of guilt or innocence depending on one’s interpretation/contextualization. The two pieces of ambiguous evidence include: 1) the discovery of one ounce of cocaine in the victim’s bedroom dresser, juxtaposed with prior knowledge from the arrest report that Briggs was previously arrested for possession of a controlled substance, and 2) fingerprint analysis that identifies several other individuals (e.g., Marks’ ex-girlfriend, Marks’ office assistant), as well as several inconclusive results. Prior to initiation of this study, case materials were pilot tested with a sample of law students, to ascertain *a priori* that 1) there was variability in study participants’ initial ratings of suspect guilt, 2) each of the inculpatory, ambiguous, and exculpatory pieces of evidence could be objectively identified as incriminating, ambiguous, and exonerating.

In the pilot phase, law students and psychology graduate students were asked to read through the arrest report and report their initial ratings of suspect guilt. Participants were also asked to rate the degree of incrimination/exoneration for each piece of the “new evidence” on a 10-point Likert-type scale ranging from “strongly incriminating” to “strongly exonerating,” with “ambiguous” as the midpoint. In total, 11 law students and graduate psychology students

participated in this pilot testing. Variability of initial guilt impressions was good ($M = 5.09$, $SD = 1.97$, range of 2 to 7), and any piece of evidence that was rated in a way that suggested it was inconsistent with the intended design was edited for clarity.

The final array of case materials required no more than 20 minutes of reading time to increase the likelihood of complete participation.

Evidence Evaluation Form

Following the presentation of each piece of new evidence, participants completed a brief evidence evaluation form which asked for ratings of credibility and incriminating/exonerating power (see Appendix). Participants rated credibility on a 0-to-10 Likert-type scale, and degree of incrimination/exoneration on a Likert-type scale ranging from -10 to 10. Scores for credibility and degree of incrimination/exoneration were added together from both pieces of new evidence to generate total scores.

Case Processing Form

Participants completed a case processing form following the presentation of case materials (see Appendix). This form included questions regarding participants' charge decisions, including whether or not one would file charges, the type/seriousness of charges to be brought against the suspect, whether or not a plea bargain should be offered, and the type/seriousness of charges that the plea bargain would involve. Using a 0-to-10 Likert-type scale, participants also rated the overall strength of the case against the suspect in question, and provided final ratings of suspect guilt. Finally, participants were asked if there was anything they would have disclosed to the defense. If prosecutors indicated that they would disclose evidence to the defense, they were asked to indicate at what point in time they would disclose.

Attention Check

To assess for potential participant inattention or lack of comprehension, three questions related to basic facts of the case (e.g., the cause of the victim's death, the relationship between the victim and suspect, whether a confession had been obtained) were included. Of the initial sample, n=15 participants responded incorrectly to one or more of these questions, and thus their data was excluded from analyses.

Demographics Questionnaire

A demographics questionnaire collected information on variables such as participant age, gender, race/ethnicity, and geographic region. Questions specific to legal practice such as the year the participant passed the bar, the number of years practicing law, the participant's approximate conviction rate, the number of homicide cases on which the participant has worked, and whether the participant works with a specialized prosecution unit were included.

Procedures

All study procedures occurred online. Prosecutors interested in participating were directed to a brief consent form. Regarding the purpose of the study, prosecutors were only informed that the study was designed to understand prosecutorial decision-making in a criminal case. The true nature of the study was concealed so as not to affect how participants directed their attention when reviewing case materials, nor how they subsequently evaluated the evidence and decided on charges. Prosecutors were informed that they would be remunerated for their participation, and that they would receive payment in the form of a digital gift card after completion of participation. After consenting, participants were redirected to the online study materials. Participants were randomly assigned to one of three "evidence type" groups: Inculpatory Group, Exculpatory Group, or Ambiguous Group.

First, all participants completed the demographics form. Then, all participants were instructed to review the arrest report, and asked to rate the degree to which they found the suspect (Bill Briggs) guilty based on the information provided in the report. Participants were then informed that new evidence had become available for their review. They were instructed to review this evidence, which included either inculpatory, exculpatory, or ambiguous pieces of evidence, depending on the group to which they had been randomly assigned.

Following review of each piece of new evidence, participants were asked complete the evidence evaluation form. Once participants reviewed all pieces of new evidence, they completed a case processing form. Statutes pertaining to first-degree and second-degree murder as well as first-degree and second-degree manslaughter were included so as to establish the relevant legal definitions, thus controlling for regional differences in legal statutes. Following completion of participation, participants were debriefed regarding the true purpose of the study and given the opportunity to exclude their data from analyses. They were redirected to another survey, in which they were instructed to enter their email address to receive a digital gift card, should they have chosen to receive compensation.

RESULTS

Statistical analyses were conducted using IBM SPSS Statistics for Windows, Version 27.0, and the PROCESS macro for SPSS, version 3.5.2 (Hayes, 2018). The level of significance for all statistical analyses was set at $\alpha = 0.05$ to reasonably balance the chances of committing either Type I or Type II errors.

Preliminary Analyses

Preliminary analyses demonstrated that experimental groups did not differ significantly on any demographic variables, including age, gender, race/ethnicity, geographic region, and political party affiliation. Experimental groups also did not differ on relevant legal variables, such as years working as a prosecutor, number of homicide cases worked, estimated percentage of cases closed each year, assignment to a specialized prosecution unit, or type of position (i.e., elected, hired, appointed). Chi-square analyses were utilized for categorical demographic variables, while one-way ANOVAs were utilized for continuous demographic variables.

Main Data Analyses

Initial Beliefs of Guilt

Among the entire sample, initial beliefs in guilt averaged approximately 5.27 (SD = 1.64) on a scale of 0-10, with responses ranging from 0 to 8. As would be expected, an ANOVA conducted on initial likelihood of reporting higher initial guilt scores indicated no significant effect of evidence valence, $F(2, 96) = 1.10$, $p = 0.34$, $\eta^2 = 0.23$. Given that participants were randomized to the three experimental evidence groups following articulation of initial beliefs in

suspect guilt, this indicates that belief in suspect guilt was no higher or lower in any one group prior to exposure to the “new” evidence.

Structural Equation Modeling

Hypothesis 1: Initial Guilt Rating as a Predictor of Case Decisions and Impressions.

It was hypothesized that prosecutors’ initial ratings of suspect guilt would significantly predict final case processing decisions and overall impressions of the case, such that prosecutors who articulate stronger beliefs in suspect guilt would be more likely to proceed with charges, more likely to select charges of a greater severity, more likely to rate the entire body of evidence as a strong case against the defendant, and more likely to rate the suspect as guilty after consideration of all the evidence (*H1*). A binary logistic regression demonstrated that initial guilt rating was *not* a significant predictor of decision to proceed with charges in the case ($B = -0.12$, $SE = 0.13$, $Wald = 0.87$, $p = 0.35$), yet it did significantly predict the severity of charges selected ($B = -0.11$, $SE = 0.04$, $t = -2.46$, $p = 0.02$). Participants who reported higher initial guilt ratings were no more likely to proceed with charges, yet they were moderately more likely to select the charges of a *lesser* degree when they did choose to proceed (i.e., murder in the 2nd degree, as opposed to murder in the 1st degree). Initial guilt rating did not significantly predict final appraisal of the strength of the case ($B = 0.20$, $SE = 0.15$, $t = 1.34$, $p = 0.18$) nor did it predict final guilt appraisal ($B = 0.26$, $SE = 0.16$, $t = 1.60$, $p = 0.11$).

To investigate the hypothesized mediation effects of evidence evaluations (*H2*), structural path analyses were planned. However, tests of correlation indicate that the hypothesized predictor, i.e., initial guilt rating, was not significantly associated with either of the hypothesized mediators, i.e., evaluations of evidence credibility ($r[94] = 0.12$, $p = 0.23$) and degree of incrimination ($r[94] = -0.06$, $p = 0.58$). Data analyses were thus conducted to examine the

relationships between evaluations of evidence credibility and the outcome variables (i.e., charge decisions, final case appraisals), as well as between evaluations of evidence degree of incrimination and outcome variables.

Hypothesis 2: Evidence Evaluations as Mediating Variables. To investigate the hypothesized mediation effects of evidence evaluations (*H2*), structural path analyses were planned. However, tests of correlation indicate that the hypothesized predictor, i.e., initial guilt rating, was not significantly associated with either of the hypothesized mediators, i.e., evaluations of evidence credibility ($r[94] = 0.12, p = 0.23$) and degree of incrimination ($r[94] = -0.06, p = 0.58$). Data analyses were thus conducted to examine the relationships between evaluations of evidence credibility and the outcome variables (i.e., charge decisions, final case appraisals), as well as between evaluations of evidence degree of incrimination and outcome variables.

Evidence Credibility as a Predictor of Prosecutorial Decision-Making. As previously described, ratings of evidence credibility for both pieces of new evidence were combined to generate a total evidence credibility score for each participant. Appraisal of the evidence's credibility significantly predicted the decision to proceed with charges ($B = -0.16, SE = 0.07, Wald = 4.91, p = 0.03$; odds ratio favoring a decrease of approximately 15%; OR = 0.85, 95% CI [0.74-0.98]). Evaluation of evidence credibility did not significantly predict severity of charges selected, $B = 0.03, SE = 0.03, t = 0.82, p = 0.42$, nor did it significantly predict final impressions of the strength of the case, $B = 0.15, SE = 0.08, t = 1.89, p = 0.06$. Evidence credibility did, however, predict final impressions of suspect guilt, $B = 0.18, SE = 0.08, t = 2.09, p = 0.04$.

Evidence Incriminatory Power as a Predictor of Prosecutorial Decision-Making. As with evidence credibility ratings, ratings of incriminatory power for both pieces of new evidence

were combined to generate a total degree of incrimination score for each participant. Appraisal of the evidence's incriminatory power significantly predicted the decision to proceed with charges ($B = -0.27$, $SE = 0.05$, $Wald = 30.13$, $p < 0.001$; odds ratio favoring a decrease of approximately 23%; $OR = 0.77$, 95% $CI [0.70-0.84]$). Thus, those who rated the given evidence as having a greater degree of incrimination appeared to be significantly *less* likely to proceed with charges. Evaluation of incriminatory power of evidence did not significantly predict severity of charges selected, $B = 0.02$, $SE = 0.02$, $t = 1.57$, $p = 0.12$. However, it did serve as a significant predictor of final impressions of the strength of the case, $B = 0.19$, $SE = 0.02$, $t = 10.61$, $p < 0.001$, and suspect guilt, $B = 0.22$, $SE = 0.02$, $t = 11.55$, $p < 0.001$. Participants who judged the evidence as more incriminating were more likely to deem the case as "strong" and appraise the suspect as guilty.

Hypothesis 3: Considering Evidence Valence and Testing for Moderated Mediation.

The final hypothesis ($H3$) was that any potential effects of evidence evaluation mediators would be moderated by the valence of the new evidence reviewed by prosecutors (inculpatory, exculpatory, and ambiguous). Yet, path analysis indicated that evidence type condition (Inculpatory vs. Exculpatory vs. Ambiguous) did not moderate any potential relationships between initial guilt rating and the proposed mediator variables. Evidence type was not found to moderate the relationship between initial guilt rating and evaluation of evidence credibility, nor did it moderate the relationship between initial guilt rating and evaluation of evidence incriminatory power (see Table 2). Thus, the fully-constructed moderated mediation models (see Figure 1) would not appropriately explain variance in the outcome variables of interest.

Table 2.*Moderation Analyses*

Evidence	Predictor Variable	b	SE	t	p
Credibility	X1: Exculpatory Evidence	-0.58	94.02	-0.01	1.00
	X2: Ambiguous Evidence	-112.60	95.10	-1.18	0.24
	Initial Guilt Rating	0.34	8.33	0.04	0.97
	Interaction: X1 x Initial Guilt Rating	0.00	17.35	0.00	1.00
	Interaction: X2 x Initial Guilt Rating	12.41	16.64	0.75	0.46
Evidence	Predictor Variable	b	SE	t	p
IncrimINARY Power	X1: Exculpatory Evidence	-12.66	4.64	-2.73	0.01*
	X2: Ambiguous Evidence	-8.99	4.70	-1.91	0.06
	Initial Guilt Rating	0.47	0.42	1.12	0.27
	Interaction: X1 x Initial Guilt Rating	-0.92	0.85	-1.08	0.28
	Interaction: X2 x Initial Guilt Rating	-0.87	0.82	-1.06	0.29

Note. Indicator coding was implemented for the multicategorical experimental condition variable (i.e., the independent variable). Comparison group was set to Inculpatory Evidence.

Nonetheless, evidence type condition did significantly predict the evaluation of evidence incriminating/exonerating power, $F(2, 95) = 117.80, p < 0.001, \eta^2 = 0.72$, indicating that the experimental manipulation was effective at differentiating the groups. Post hoc analyses demonstrated that all three groups differed significantly on appraisal of the evidence's degree of incrimination (Inculpatory condition: $M = 11.68, SD = 3.82$, Exculpatory condition: $M = -5.77, SD = 7.52$, Ambiguous condition: $M = -1.96, SD = 3.00$). Of note, selective interpretation of ambiguous evidence as incriminating was not demonstrated. Within the Ambiguous group, initial guilt rating did not significantly predict evaluation of incriminary power, $r(25) = -0.20, p = 0.18$.

Evidence Valence as a Predictor of Case Decisions and Impressions. Evidence type (Inculpatory vs. Exculpatory vs. Ambiguous) was also examined as a predictor of studied outcome variables. A chi-square analysis indicated that the decision to proceed with charges differed significantly on evidence type, $\chi^2(2, 97) = 48.51, p < 0.001$. Those assigned to the

inculpatory group were significantly more likely to report that they would proceed with charges, while those in either the exculpatory or ambiguous evidence groups were more likely to report that they would *not* proceed with charges (see Table 3).

Table 3.

The Decision to Proceed with Charges by Evidence Type Group

	Would you proceed with charges? (frequency)		
	Yes	No	Total
Inculpatory	35	6	41
Exculpatory	4	27	31
Ambiguous	4	21	25
Total	43	54	97

Evidence type did not significantly predict the severity of charges selected by those who would proceed ($F[2, 40] = 2.49, p = 0.10, \eta^2 = 0.12$), yet it did significantly predict both final impressions of the strength of the case ($F[2, 95] = 66.55, p < 0.001, \eta^2 = 0.59$), and suspect guilt ($F[2, 96] = 61.83, p < 0.001, \eta^2 = 0.57$). Those who reviewed inculpatory evidence were significantly more likely than those who reviewed either exculpatory or ambiguous evidence to judge the case as “strong” (Inculpatory: $M = 7.44, SD = 1.30$, Exculpatory: $M = 3.55, SD = 1.82$, Ambiguous: $M = 3.92, SD = 1.64$) and to appraise the suspect as guilty (Inculpatory: $M = 8.22, SD = 1.28$, Exculpatory: $M = 3.84, SD = 2.05$, Ambiguous: $M = 4.72, SD = 2.07$). The Exculpatory and Ambiguous groups were not significantly different from one another on either of these two outcome variables.

Exploratory Analyses

Exploratory analyses were planned to examine if participants’ decisions regarding plea offers would be explained by the moderated mediation model comprising hypotheses 1-3. Initial guilt rating was not found to be a predictor of the decision to offer a plea ($B = 0.05, SE = 0.21$,

Wald = 0.05, $p = 0.83$). Neither of the evidence evaluation variables predicted the decision to offer a plea (evidence credibility: $B = -0.01$, $SE = 0.14$, Wald = 0.01, $p = 0.93$; evidence incriminatory power: $B = 0.05$, $SE = 0.72$, Wald = 0.44, $p = 0.51$). Finally, an investigation of evidence type (Inculpatory vs. Exculpatory vs. Ambiguous) as a predictor could not be completed, as not all evidence type groups had variability in their selection as to whether to offer a plea (see Table 4). Over three-quarters of participants who indicated they would proceed with charges also indicated that they would offer a plea ($n = 32$, 78%). Similarly, there was little variability in the opening plea selected by these participants. Of the 32 participants who would offer a plea, $n = 26$ (81%) would open with an offer of murder in the second degree.

Table 4.

The Decision to Offer a Plea by Evidence Type Group

	Would you offer a plea? (<i>frequency</i>)		
	Yes	No	Total
Inculpatory	26	8	34
Exculpatory	3	0	3
Ambiguous	3	1	4
Total	32	9	41

Finally, exploratory analyses were planned to examine if participants' initial guilt ratings and evidence evaluations influenced whether they would disclose any evidence to the defense, and and/or if those who would disclose at differing timepoints also differed in guilt ratings and evidence evaluations. However, with the exception of $n=3$ participants, all participants indicated that they would disclose evidence to the defense, should they be handling the case in real life. Of those who would disclose, all except $n=1$ participant indicated that they would disclose pre-trial, before plea bargaining.

DISCUSSION

The aim of this study was to investigate whether and to what extent prosecutors demonstrate confirmation bias in their evaluations of evidence and subsequent decision-making in criminal cases. Overall, study results suggest that the hypothesized manifestations of confirmation bias in evidence evaluation were not at play in the recruited sample. At the most basic level, initial impressions of guilt did not predict case processing decisions and final impressions of the case, with the exception of selected charge severity. Unexpectedly, those who articulated a stronger initial belief in the identified suspect's guilt were more likely to select charges of lesser severity, which is hard to explain. It may be that when rating initial guilt, prosecutors already had a specific conceptualization of the crime for which the suspect was guilty, that more closely aligned with charges approximating murder in the 2nd degree (as opposed to murder in the 1st degree). Yet on the whole, the data suggest that prosecutors are not beholden to their initial impressions of suspect guilt when deciding how to handle a case.

Evaluation of the degree to which "new" evidence (made available after arrest) served to incriminate or exonerate the suspect in question appeared to be influential in how prosecutors subjectively appraised the case. As could be expected, prosecutors were more likely to judge the case as "strong" and rate the suspect as guilty when they rated the evidence as more incriminating. However, those who rated the evidence as more incriminating than exonerating were also more likely to select less severe charges. Although unexpected, this seems to cohere with the statistically significant finding regarding the relationship between initial guilt

impression and severity of charges selected; it may be that for prosecutors convinced of guilt, they were convinced of a *particular* guilt. Or, these prosecutors may have felt that a lesser murder charge was a “surer bet” should the case proceed to trial. An investigation of whether perceived evidence credibility has an influence on decision-making yielded more mixed results. While evidence credibility appeared to predict the decision to proceed with charges and final impressions of suspect guilt, it was not found to predict the severity of charges selected, nor overall impressions of case strength. The of a “credibility” variable in a study of legal decision-making may ultimately necessitate further specificity. Evidence credibility may refer to credibility of the evidence source, or credibility of the facts at hand. It is unclear if prosecutors were considering one or both of these factors.

As for the experimental manipulation of the new evidence’s valence, results showed that exposure to inculpatory evidence was a significant factor in the decision to proceed with charges, in the final determinations that the case was strong, and that the suspect was guilty. Exposure to other types of evidence seemingly did not inspire the same kind of confidence in moving forward with the case, nor in viewing the case as strong or the suspect as guilty. Altogether, these results suggest decision-making processes that align with the quality of evidence prosecutors are given to review.

These study results are incongruous with prior findings indicating legal decision-makers are susceptible to bias in their review of criminal case evidence. Prior research (Kassin et al., 2013; O’Brien, 2009) suggests determinations of guilt are more likely when decision-makers are either led to believe in guilt, or are required to volunteer an initial hypothesis of guilt; in the current study, participants were told a suspect had been arrested in the case in question and asked to articulate an initial impression of guilt. Nonetheless, data from this study demonstrated a lack

of relationship between participants' initially-articulated impressions of guilt and final appraisals of the case. Likewise, Dror and colleagues have demonstrated in multiple studies that forensic investigators will alter their assessments of criminal case evidence to align with biasing contextual information. According to the data, these findings seemingly do not extend to the prosecutorial branch of the criminal justice system. Moreover, prior research regarding the selective interpretation of evidence (Charman et al., 2017; Elass et al., 1994; Kostopoulou et al., 2009) suggests that decision-makers are more likely to appraise ambiguous evidence as confirmatory of initial impressions; however, within the Ambiguous group, those who reported higher initial ratings of suspect guilt were no more likely to rate the evidence they reviewed as incriminating.

It is wholly possible that the responses garnered in this study have yielded true null results. Yet, given the considerable empirical support for the selective attention to, and interpretation of, evidence in the criminal justice system, the apparent lack of bias in this study may be regarded with some skepticism. Given the limitations of the study design (discussed below), possible participant reactivity to the artificial nature of the tasks at hand, and/or other unknown confounds, these data may not reflect prosecutors' day-to-day practices.

Participants almost unilaterally reported that, should it be a real-life case, they would disclose evidence to the defense, therefore rendering planned exploratory analyses nonviable. However, it is unclear if this lack of variability is an artifact of prosecutors' training and indicative of real-life practice, or if merely posing the question regarding disclosure alerted participants to the intended purpose of the study and/or the *Brady v. Maryland* (1963) requirements, and thus led to positive impression management behaviors (i.e., reporting that one would disclose because it "looks good" to say that one would do so). Whatever the motivating

factor(s) may be, the data suggest widespread adherence to the requirement to disclose exculpatory evidence as dictated by *Brady*. As previously noted, however, *Brady* violations are considered some of the most frequent incidents of misconduct reported.

Nearly all participants also indicated that they would disclose evidence pre-trial, before plea-bargaining, but this may be a result of constraining participants to select one timepoint out of several given options. It may have been more edifying to allow participants to provide qualitative data regarding when they would turn over certain kinds of evidence, to report if disclosure would be part of the discovery process, if it would be ongoing, and so on. There was also limited variability in decision-making regarding plea offers. A majority of participants who chose to move forward with charges also indicated they would offer a plea, which is concurrent with data that indicate most cases never proceed to trial (Pew Research Center, 2019).

Limitations

Findings from any experimental investigation should be considered within the context of the study's limitations. Of particular note, the attained sample size was conspicuously small ($N = 97$), thus the experimental groups were subsequently small. It is possible that relationships between variables that actually exist in the population could not be captured due to the limited group sizes (and consequent lack of variability in some of the data).

The choice to conduct this study via an online survey platform was made to increase the likelihood of obtaining a large, nationally representative sample. However, conducting an online study presents certain limitations. Despite endeavors to present participants with a realistic-looking case materials, the artificial nature of this decision-making context limits ecological validity. In a real criminal case, prosecutors' charge decisions have significant consequences for all involved parties (defendant, victim's family, etc.), and are subject to public scrutiny.

Participants' decisions in this context do not carry the same weight and it is unlikely that the cognitive and emotional resources allotted to such real life decisions are replicable in the laboratory. Moreover, the degree to which prosecutors' decisions are already scrutinized may have primed participants to "tread carefully" when responding. When solicited to participate, prosecutors were made aware that their decisions *as prosecutors* were the subject of study, although they were not informed until study completion that cognitive bias was of principal interest. Had prosecutors been embedded within a larger study of legal decision-makers, reactivity may have been less of a concern.

Implications and Directions for Future Research

Legal scholars including Findley and Scott (2006), Bandes (2006), and Burke (2007) concur that, while it is the responsibility of prosecutors to act impartially in the quest for justice, it is almost unavoidable that prosecutors commit themselves wholeheartedly to one working theory. However, the data from this study tell a more optimistic story. Results suggest prosecutors are able to evaluate evidence and make case processing decisions based on its objective incriminatory nature, rather than on initial subjective impressions. In this sense, prosecutors may demonstrate more cognitive flexibility than has been described by legal scholars who advance the "tunnel vision" concept. Cognitive flexibility refers to the ability to switch one's mode of thinking and/or behaving according to the changing demands of one's environment/situation, as well as the ability to hold multiple concepts in the mind simultaneously (see Dajani & Uddin, 2017). As opposed to the rigidity exemplified by confirmation bias, prosecutors may be able to adapt their appraisals of a case based on accumulated evidence, or at the very least, recognize that they may have developed both subjective and objective impressions of a case, without comingling the two. Alternatively, prosecutors may just be adept at employing

effective countermeasures to decrease naturally-occurring bias. As referenced earlier in this paper, in a study of decision-making in a mock criminal investigation, O'Brien (2009) found that participants who were asked to name a suspect yet also consider why their presumption of guilt may be wrong showed no more bias against the study's intended "prime suspect" than those who were never asked to identify a suspect. When asked to rate final impressions of guilt, prosecutors in the current study may have been engaging in a similar process.

Ultimately, this research should be repeated with a much larger sample size, and in increasingly more naturalistic ways. In order to prevent attrition, this study presented participants with relatively few pieces of evidence, but a future study might utilize a complete case file. Prosecutors are often juggling many cases at once, and may have little time to review individual case files before case processing decisions must be made. By varying the amount and/or complexity of evidence in a given file, the effect of cognitive load on prosecutors' susceptibility to confirmation bias could be examined more specifically. Cognitive load refers to the amount of information that working memory can retain at one time (Sweller, 1988). If prosecutors' cognitive resources are easily overwhelmed by sheer volume or difficulty of the evidence with which they are working, they may seek to act based on initial impressions of a case.

Additionally, this study focused on a homicide case, as prior research suggests that dealing with more severe crimes will render decision-makers more susceptible to confirmation bias (Dror et al., 2005; Rassin et al., 2010). "Severity" is a subjective concept, however, and it may be that other crimes such as sexual assault or crimes involving child victims have a more emotional impact, making tunnel vision a more likely reality.

Further, this research should be extended to consider the influence of other "voices" in the criminal justice process. For example, while prosecutorial offices act independently of police

departments in enforcing the law, they rely significantly on police to accomplish their work, and vice versa (Harris, 2011; Orton & Weick, 1990). Holleran et al. (2010) found general agreement between charges filed by police at arrest and final charges filed by the prosecutor, with variability largely due to jurisdictional differences. This may suggest that prosecutors are responsive (and seek to confirm) the earlier decisions of police in the criminal cases they handle. Although the thoughts and decisions of police can be extrapolated from the arrest report reviewed by participants in the current study, police judgments of criminal cases could be made more or less salient in future variations of this research to determine their relative influence.

CONCLUSION

Convergent with prior literature suggesting that prosecutors are susceptible to confirmation bias in case processing, the current study aimed to investigate the degree to which prosecutors attended to and selectively interpreted criminal case evidence in ways that confirmed their first impressions of a suspect's guilt. The study also attempted to examine prosecutors' ability to discern whether evidence should be turned over to the defense, as stipulated by *Brady v. Maryland* (1963). Data show that prosecutors may not demonstrate tunnel vision in their evaluation of criminal case evidence. Prosecutors in the current study appraised evidence with a seemingly objective eye, and final case processing decisions did not depend on prosecutors' initial assessments.

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APPENDIX A

Evidence Evaluation Form

Please rate this piece of evidence on the credibility it would have in court, should this case proceed to trial.

0—1—2—3—4—5—6—7—8—9—10

0 = not credible

10 = completely credible

Please rate this piece of evidence on the degree to which it incriminates or exonerates Bill Briggs.

-10—-9—-8—-7—-6—-5—-4—-3—-2—-1—0—1—2—3—4—5—6—7—8—9—10

-10 = explicitly exculpatory

0 = neutral; neither incriminates nor exonerates

10 = explicitly inculpatory

Case Processing Form

Now you will be asked a series of questions regarding your final impressions of the case, as well as the case processing decisions you feel would be appropriate, given the evidence available at this time. The penal code definitions provided below should be used in your determinations:

Penal Code Definitions

Except where different meanings are expressly specified in subsequent provisions, the following terms have the following meanings:

OFFENSE means conduct for which a sentence to a term of imprisonment or to a fine is provided by any law of this state or by any law, local law or ordinance of a political subdivision of this state, or by any order, rule or regulation of any governmental instrumentality authorized by law to adopt the same.

MISDEMEANOR means an offense, other than a “traffic infraction,” for which a sentence to a term of imprisonment in excess of fifteen days may be imposed, but for which a sentence to a term of imprisonment in excess of one year cannot be imposed.

FELONY means an offense for which a sentence to a term of imprisonment in excess of one year may be imposed.

CRIME means a misdemeanor or a felony.

PERSON means a human being, and where appropriate, a public or private corporation, an unincorporated association, a partnership, a government or a governmental instrumentality.

POSSESS means to have physical possession or otherwise to exercise dominion or control over tangible property.

PHYSICAL INJURY means impairment of physical condition or substantial pain.

SERIOUS PHYSICAL INJURY means physical injury which creates a substantial risk of death, or which causes death or serious and protracted disfigurement, protracted impairment of health or protracted loss or impairment of the function of any bodily organ.

DEADLY PHYSICAL FORCE means physical force which, under the circumstances in which it is used, is readily capable of causing death or other serious physical injury.

DEADLY WEAPON means any loaded weapon from which a shot, readily capable of producing death or other serious physical injury, may be discharged, or a switchblade knife, gravity knife, pilum ballistic knife, metal knuckle knife, dagger, billy, blackjack, plastic knuckles, or metal knuckles.

HOMICIDE means conduct which causes the death of a person or an unborn child with which a female has been pregnant for more than twenty-four weeks under circumstances constituting murder, manslaughter in the first degree, manslaughter in the second degree, criminally negligent homicide, abortion in the first degree or self-abortion in the first degree.

MURDER IN THE FIRST DEGREE

A person is guilty of murder in the first degree when:

1. With intent to cause the death of another person, he causes the death of such person or of a third person; and

(a) Either:

(i) the intended victim was a police officer, peace officer, firefighter, member of a first response team, or employee of a state correctional institution who was at the time of the killing engaged in the course of performing his official duties, and the defendant knew or reasonably should have known that the intended victim was a police officer, firefighter, member of a first response team, or employee of a state correctional institution; or

(ii) at the time of the commission of the killing, the defendant was confined in a state correctional institution or was otherwise in custody upon a sentence for the term of his natural life, or upon a sentence commuted to one of natural life, or at the time of the commission of the killing, the defendant had escaped from such confinement or custody while serving such a sentence and had not yet been returned to such confinement or custody; or

(iii) the intended victim was a witness to a crime committed on a prior occasion and the death was caused for the purpose of preventing the intended victim's testimony in any criminal action or proceeding whether or not such action or proceeding had been commenced, or the intended victim had previously testified in a criminal action or proceeding and the killing was committed for the purpose of exacting retribution for such prior testimony, or the intended victim was an immediate family member of a witness to a crime committed on a prior occasion and the killing was committed for the purpose of preventing or influencing the testimony of such witness, or the intended victim was an immediate family member of a witness who had previously testified in a criminal action or proceeding and the killing was committed for the purpose of exacting retribution upon such witness for such prior testimony; or

(iv) the defendant committed the killing or procured commission of the killing pursuant to an agreement with a person other than the intended victim to commit the same for the receipt, or in expectation of the receipt, of anything of pecuniary value from a party to the agreement or from a person other than the intended victim acting at the direction of a party to such agreement; or

(v) the victim was killed while the defendant was in the course of committing or attempting to commit and in furtherance of robbery, burglary in the first degree or second degree, kidnapping in the first degree, arson in the first degree or second degree, rape in the first degree, criminal sexual act in the first degree, sexual abuse in the first degree, aggravated sexual abuse in the first degree or escape in the first degree; provided however, the victim is not a participant in one of the aforementioned crimes; or

(vi) as part of the same criminal transaction, the defendant, with intent to cause serious physical injury to or the death of an additional person or persons, causes the death of an additional person or persons; provided, however, the victim is not a participant in the criminal transaction; or

(vii) prior to committing the killing, the defendant had been convicted of murder, or had been convicted in another jurisdiction of an offense which, if committed in this state, would constitute a violation of either of such sections; or

(viii) the intended victim was a judge and the defendant killed such victim because such victim was, at the time of the killing, a judge; or

(ix) the victim was killed in furtherance of an act of terrorism; and

(b) The defendant was more than eighteen years old at the time of the commission of the crime.

2. In any prosecution under subdivision one, it is an affirmative defense that:

(a) The defendant acted under the influence of extreme emotional disturbance for which there was a reasonable explanation or excuse, the reasonableness of which is to be determined from the viewpoint of a person in the defendant's situation under the circumstances as the defendant believed them to be. Nothing contained in this paragraph shall constitute a defense to a prosecution for, or preclude a conviction of, manslaughter in the first degree or any other crime except murder in the second degree; or

(b) The defendant's conduct consisted of causing or aiding, without the use of duress or deception, another person to commit suicide. Nothing contained in this paragraph shall constitute a defense to a prosecution for, or preclude a conviction of, manslaughter in the second degree or any other crime except murder in the second degree.

Murder in the first degree is a class A felony.

MURDER IN THE SECOND DEGREE:

A person is guilty of murder in the second degree when:

1. With intent to cause the death of another person, he causes the death of such person or of a third person; except that in any prosecution under this subdivision, it is an affirmative defense that:

(a) The defendant acted under the influence of extreme emotional disturbance for which there was a reasonable explanation or excuse, the reasonableness of which is to be determined from the viewpoint of a person in the defendant's situation under the circumstances as the defendant believed them to be. Nothing contained in this paragraph shall constitute a defense to a prosecution for, or preclude a conviction of, manslaughter in the first degree or any other crime; or

(b) The defendant's conduct consisted of causing or aiding, without the use of duress or deception, another person to commit suicide. Nothing contained in this paragraph shall constitute

a defense to a prosecution for, or preclude a conviction of, manslaughter in the second degree or any other crime; or

2. Under circumstances evincing a depraved indifference to human life, he recklessly engages in conduct which creates a grave risk of death to another person, and thereby causes the death of another person; or

3. Acting either alone or with one or more other persons, he commits or attempts to commit robbery, burglary, kidnapping, arson, rape in the first degree, criminal sexual act in the first degree, sexual abuse in the first degree, aggravated sexual abuse, escape in the first degree, or escape in the second degree, and, in the course of and in furtherance of such crime or of immediate flight therefrom, he, or another participant, if there be any, causes the death of a person other than one of the participants; except that in any prosecution under this subdivision, in which the defendant was not the only participant in the underlying crime, it is an affirmative defense that the defendant:

(a) Did not commit the homicidal act or in any way solicit, request, command, importune, cause or aid the commission thereof; and

(b) Was not armed with a deadly weapon, or any instrument, article or substance readily capable of causing death or serious physical injury and of a sort not ordinarily carried in public places by law-abiding persons; and

(c) Had no reasonable ground to believe that any other participant was armed with such a weapon, instrument, article or substance; and

(d) Had no reasonable ground to believe that any other participant intended to engage in conduct likely to result in death or serious physical injury; or

4. Under circumstances evincing a depraved indifference to human life, and being eighteen years old or more the defendant recklessly engages in conduct which creates a grave risk of serious physical injury or death to another person less than eleven years old and thereby causes the death of such person; or

5. Being eighteen years old or more, while in the course of committing rape in the first, second or third degree, criminal sexual act in the first, second or third degree, sexual abuse in the first degree, aggravated sexual abuse in the first, second, third or fourth degree, or incest in the first, second or third degree, against a person less than fourteen years old, he or she intentionally causes the death of such person.

Murder in the second degree is a class A felony.

MANSLAUGHTER IN THE FIRST DEGREE

A person is guilty of manslaughter in the first degree when:

1. With intent to cause serious physical injury to another person, he causes the death of such person or of a third person; or

2. With intent to cause the death of another person, he causes the death of such person or of a third person under circumstances which do not constitute murder because he acts under the

influence of extreme emotional disturbance. The fact that homicide was committed under the influence of extreme emotional disturbance constitutes a mitigating circumstance reducing murder to manslaughter in the first degree and need not be proved in any prosecution initiated under this subdivision; or

4. Being eighteen years old or more and with intent to cause physical injury to a person less than eleven years old, the defendant recklessly engages in conduct which creates a grave risk of serious physical injury to such person and thereby causes the death of such person.

Manslaughter in the first degree is a class B felony.

MANSLAUGHTER IN THE SECOND DEGREE

A person is guilty of manslaughter in the second degree when:

1. He recklessly causes the death of another person; or
3. He intentionally causes or aids another person to commit suicide.

Manslaughter in the second degree is a class C felony.

Case Processing Questions

- Based on the evidence in the provided case materials, would you proceed with charges against Bill Briggs?

Yes/No

- If yes, would you proceed with charges related to the homicide of Elliot Marks?

Yes/No

- What charges would you file?
 - *Murder in the first degree*
 - *Murder in the second degree*
 - *Manslaughter in the first degree*
 - *Manslaughter in the second degree*

- Would you offer a plea bargain?

Yes/No

- Which of the following (below) most closely resembles the plea offer you would open with?

- *Murder in the second degree*

- *Manslaughter in the first degree*

- *Manslaughter in the second degree*

- Would you proceed with charges related to the possession of an unregistered firearm?

Yes/No

- On a scale from 0 to 10, how strong of a case is there to be made against Bill Briggs?

0—1—2—3—4—5—6—7—8—9—10

0 = there is no case to be made

10 = the case is very strong; open-and-shut

- On a scale of 0 to 10, how guilty does Bill Briggs appear to be based on the provided evidence?

0—1—2—3—4—5—6—7—8—9—10

0 = totally innocent

10 = totally guilty

- Of the evidence provided, is there anything you would disclose to the defense?

Yes/No

If yes, at what point in time would you disclose evidence?

- a) pre-trial, before plea bargaining
- b) pre-trial, after plea bargaining
- c) at the start of trial
- d) during trial

Attention Check

Please answer the following questions:

- What was the cause of the victim's (Elliot Marks') death?
 - a. Strangulation
 - b. Gunshot wound
 - c. Poisoning
 - d. Blunt force trauma
- Did the victim (Elliot Marks) and suspect (Bill Briggs) know each other prior to the homicide?
 - a. Yes
 - b. No
- Did the suspect (Bill Briggs) confess to the homicide of Elliot Marks?
 - a. Yes
 - b. No

APPENDIX B

THE UNIVERSITY OF
ALABAMA[®]

Office of the Vice President for
Research & Economic Development
Office for Research Compliance

August 26, 2020

Hannah Lind
Department of Psychology
College of Arts and Sciences
Box 870348

Re: IRB # 20-05-3595: "Prosecutors' Evaluations of Criminal Case Evidence and Discretionary Decision-making"

Dear Ms. Lind,

The University of Alabama Institutional Review Board has granted approval for your proposed research. Your application has been given expedited approval according to 45 CFR 46. You have been granted an alteration of consent and waiver of written documentation of consent. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

The approval for your application will lapse on August 25, 2021. If your research will continue beyond this date, please submit the annual report to the IRB as required by University policy before the lapse. Please note, any modifications made in research design, methodology, or procedures must be submitted to and approved by the IRB before implementation. Please submit a final report form when the study is complete.

Please use reproductions of the IRB-approved informed consent form to obtain consent from your participants.

Sincerely,

October 29, 2020

Hannah Lind
Department of Psychology
College of Arts & Sciences
The University of Alabama
Box 870348

Re: IRB # 20-05-3595-A "Prosecutors' Evaluations of Criminal Case Evidence and Discretionary Decision-Making"

Dear Ms. Lind:

The University of Alabama Institutional Review Board has reviewed the revision to your previously approved expedited protocol. The board has approved the change in your protocol.

Please remember that your protocol will expire on August 25, 2021.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants.

Good luck with your research.

Sincerely,