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A Recipe for Bias: An Empirical Look at the Interplay between Institutional Incentives and Bounded Rationality in Prosecutorial Decision Making

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A Recipe for Bias: An Empirical Look at the Interplay Between Institutional Incentives and Bounded Rationality in Prosecutorial Decision Making

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Prosecutors wield tremendous power, which is kept in check by a set of unique ethical obligations. In explaining why prosecutors sometimes fail to honor these multiple and arguably divergent obligations, scholars tend to fall into two schools of thought. The first school focuses upon institutional incentives that promote abuses of power. These scholars implicitly treat the prosecutor as a rational actor who decides whether to comply with a rule based on an assessment of the expected costs and benefits of doing so. The second school focuses upon bounded human rationality, drawing on the teachings of cognitive science to argue that prosecutors transgress not because of sinister motives but because they labor under the same cognitive limitations that all humans do. In this Article, I begin to unify these two schools of thought into a comprehensive approach. I apply the lessons of cognitive science to identify the ways in which prosecutors' distinctive institutional environment may undermine not just their willingness to play fair but also their ability to do so. Research on the psychological effects of accountability demonstrates that, when people are judged primarily for their ability to persuade others of their position, they are susceptible to defensive bolstering at the expense of objectivity. I argue that prosecutors operate under precisely such a system and are therefore particularly susceptible to biases that undermine their ability to honor obligations that require some objectivity on their part. In support of this claim, I present the results of two original experiments demonstrating that holding people accountable for their ability to persuade others of a suspect's guilt exacerbates common cognitive biases relevant to prosecutorial decision making. I discuss the implications of this research in light of current issues surrounding defendants' rights to pre-trial discovery, the use of informant testimony, and prosecutors' roles in criminal investigations.

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I. INTRODUCTION

Prosecutors wield tremendous power, which is kept in check by a set of unique ethical obligations.[2] They must prosecute offenders and do so with vigor. At the same time, they must serve as ministers of justice charged with considering the interests of the very defendants they prosecute.[3] In this Article, I argue that these "dual roles"[4] place demands on prosecutors that are untenable from a psychological perspective. Specifically, I apply the lessons of cognitive science to offer a comprehensive approach to identifying the ways in which prosecutors' distinctive institutional environment may undermine not just their willingness to play fair but also their ability to do so. This approach bridges prevailing schools of thought about the misuse of prosecutorial power, allowing for more nuanced predictions as to when prosecutors are most likely to transgress.

Striking the proper balance between advocacy and justice obligations can be difficult, and prosecutors sometimes fall short.[5] In Part II, I discuss

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2. *See* Berger v. United States, 295 U.S. 78, 88 (1935) (explaining that the prosecutor "is in a peculiar and very definite sense the servant of the law, the twofold aim of which is that guilt shall not escape or innocence suffer"). For a discussion of the scope and uniqueness of prosecutors' duties, see Kevin C. McMunigal, *Are Prosecutorial Ethics Standards Different?*, 68 FORDHAM L. REV. 1453 (2000).

3. For instance, prosecutors must turn over to the defense any potentially material evidence inconsistent with the defendant's guilt. Brady v. Maryland, 373 U.S. 83, 86-87 (1963). Unlike their defense counterparts, their loyalties are ambiguous and divided. *See* Fred C. Zacharias, *Structuring the Ethics of Prosecutorial Trial Practice: Can Prosecutors Do Justice?*, 44 VAND. L. REV. 45, 57 (1991) [hereinafter *Can Prosecutors Do Justice?*] (discussing prosecutors' many constituencies).

4. *See* MODEL RULES OF PROF'L. CONDUCT R. 3.8, cmt. 1 (2007) ("A prosecutor has the responsibility of a minister of justice and not simply that of an advocate."); MODEL CODE OF PROF'L. RESPONSIBILITY EC 7-13 (1980) ("The responsibility of a public prosecutor differs from that of the usual advocate; his duty is to seek justice, not merely to convict."); STANDARDS FOR CRIMINAL JUSTICE § 3-1.2(c) (1993) ("The duty of the prosecutor is to seek justice, not merely to convict."); NAT'L PROSECUTION STANDARDS, § 1.1 (Nat'l Dist. Attorneys Ass'n 1991) ("The primary responsibility of prosecution is to see that justice is accomplished.").

5. *See, e.g.*, Angela J. Davis, *The American Prosecutor: Independence, Power, and the Threat of Tyranny*, 86 IOWA L. REV. 393 (2001) [hereinafter *The American Prosecutor*]; Janet C. Hoeffel, *Prosecutorial Discretion at the Core: The Good Prosecutor Meets* Brady, 109 PENN. ST. L. REV. 1133 (2005); Keith A. Findley & Michael S. Scott, *The Multiple Dimensions of Tunnel Vision in Criminal Cases*, 2006 WIS. L. REV. 291; Paul C. Giannelli, Brady *and Jailhouse Snitches*, 57 CASE W. RES. L. REV. 593, 597 (2007); Stanley Z. Fisher, *In Search of the Virtuous Prosecutor: A Conceptual Framework*, 15 AM. J. CRIM. L. 197, 208-11 (1988); H. Richard Uviller, *The Virtuous Prosecutor in Quest of an Ethical Standard: Guidance from the ABA*, 71 MICH. L. REV. 1145 (1973); Bruce A. Green, *Why Should Prosecutors "Seek Justice?,"* 26 FORDHAM URB. L.J. 607 (1999) [hereinafter *"Seek Justice?"*]; *Can Prose-*

the problems that arise when a prosecutor's duty to advocate conflicts with the duty to serve justice and review the prevailing explanations for why advocacy goals sometimes triumph in these situations. In studying instances where prosecutors fail to honor their dual and arguably divergent obligations, many scholars focus on institutional incentives that foster misconduct.[6] These scholars lament an incentive structure that encourages prosecutors to seek convictions at all costs as well as the lack of effective sanctions to deter misconduct.[7] This approach implicitly treats the prosecutor as a rational actor who bases the decision to comply with a rule on an economic assessment of the expected costs and benefits of doing so.

A second school of thought focuses on bounded human rationality. Cognitive science teaches that human beings share certain cognitive tendencies that cause them to deviate in systematic and predictable ways from purely rational information processing and decision making.[8] Scholars in this school draw on these teachings to argue that prosecutors fail to honor their

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cutors Do Justice?, *supra* note 3; H. Richard Uviller, *The Neutral Prosecutor: The Obligation of Dispassion in a Passionate Pursuit*, 68 FORDHAM L. REV. 1695, 1703 (2000).

6. *See, e.g.*, *The American Prosecutor*, *supra* note 5, at 460-64; Robert Heller, Comment, *Selective Prosecution and the Federalization of Criminal Law: The Need for Meaningful Judicial Review of Prosecutorial Discretion*, 145 U. PA. L. REV. 1309, 1325-26 (1997).

7. *See, e.g.*, Angela J. Davis, *The Legal Profession's Failure to Discipline Unethical Prosecutors*, 36 HOFSTRA L. REV. 275 (2007) [hereinafter *Failure to Discipline Unethical Prosecutors*]; Daniel S. Medwed, *The Zeal Deal: Prosecutorial Resistance to Post-Conviction Claims of Innocence*, 84 B.U. L. REV. 125, 153 (2004); Peter A. Joy, *The Relationship Between Prosecutorial Misconduct and Wrongful Convictions: Shaping Remedies for a Broken System*, 2006 WIS. L. REV. 399, 400 [hereinafter *Remedies for a Broken System*]; Hoeffel, *supra* note 5; Lisa M. Budzilowicz, *Holding Prosecutors Accountable: What Is Successful Prosecutorial Performance and Why Should It Be Measured?*, PROSECUTOR, May-June 2007, at 22; Tracey L. Meares, *Rewards for Good Behavior: Influencing Prosecutorial Discretion and Conduct with Financial Incentives*, 64 FORDHAM L. REV. 851, 910 (1995); James Vorenberg, *Decent Restraint of Prosecutorial Power*, 94 HARV. L. REV. 1521 (1981); *but see* Randall D. Eliason, *The Prosecutor's Role: A Response to Professor Davis*, 2 CRIM. L. BRIEF 15, 17 (2006).

8. *See* Alafair S. Burke, *Improving Prosecutorial Decision Making: Some Lessons of Cognitive Science*, 47 WM. & MARY L. REV. 1587, 1592 (2006) [hereinafter *Improving Prosecutorial Decision Making*]. *See generally* JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES (Daniel Kahneman et al. eds., 1982) [hereinafter JUDGMENT UNDER UNCERTAINTY]; ZIVA KUNDA, SOCIAL COGNITION: MAKING SENSE OF PEOPLE 211-63 (1999); RICHARD NISBETT & LEE ROSS, HUMAN INFERENCE: STRATEGIES AND SHORTCOMINGS OF SOCIAL JUDGMENT 17-42 (1980); Craig R. Callen, *Hearsay and Informal Reasoning*, 47 VAND. L. REV. 43, 55-59 (1994) (reviewing evidence of bounded rationality and its consequences for legal decision makers).

multiple obligations not for sinister and calculating motives but because they labor under the same self-serving biases[9] and limitations that all humans do.[10]

Both approaches offer insight into when and why prosecutors allow their advocate selves to trump their public-servant selves. The macro perspective of the incentive school helps explain misconduct by looking at institutional incentives and deterrents that prosecutors face, as does bounded rationality's micro view of how an individual's cognitive biases undermine good decision making. But a more integrated approach considers how external and internal processes interact. Prosecutors may be subject to the same cognitive limitations and biases as anyone, but the system in which they operate entails a unique constellation of incentives, goals, and norms.[11]

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9. *Improving Prosecutorial Decision Making*, *supra* note 8. The pejorative connotation of "bias" makes its use controversial. Labeling a cognitive tendency as a "bias" suggests that there is one valid strategy for processing information and any other approach is irrational. Psychologists Gigerenzer and Goldstein argue that "the heuristics-and-biases view of human irrationality would lead us to believe that humans are hopelessly lost in the face of real-world complexity, given their supposed inability to reason according to the canon of classical rationality, even in simple laboratory experiments." Gerd Gigerenzer & Daniel G. Goldstein, *Reasoning the Fast and Frugal Way: Models of Bounded Rationality*, 103 PSYCHOL. REV. 650, 651 (1996). In fact, these information-processing strategies often work well with minimal drain on limited cognitive resources. For examples, see Gerd Gigerenzer & Peter M. Todd, *Fast and Frugal Heuristics: The Adaptive Toolbox*, *in* SIMPLE HEURISTICS THAT MAKE US SMART (Gerd Gigerenzer et al. eds., 1999). Whether a cognitive tendency constitutes a "bias" or "error" depends on the person's goals in the situation. *See* Philip E. Tetlock & Jennifer S. Lerner, *The Social Contingency Model: Identifying Empirical and Normative Boundary Conditions on the Error-and-Bias Portrait of Human Nature*, *in* DUAL-PROCESS THEORIES IN SOCIAL PSYCHOLOGY 571 (Shelly Chaiken & Yaacov Trope eds., 1999) [hereinafter *Social Contingency Model – Error-and-Bias*]. Resolving the issue of what constitutes rational thought is far beyond the scope of this Article. See RAYMOND S. NICKERSON, ASPECTS OF RATIONALITY: REFLECTIONS ON WHAT IT MEANS TO BE RATIONAL AND WHETHER WE ARE (2008), for an exploration of this issue. For purposes of understanding prosecutorial decision making, I use the term "bias" loosely to connote a reasoning strategy or approach that preferences information and inferences that tend to serve the prosecutor's goal of winning over that of doing justice.

10. *See, e.g.*, *Improving Prosecutorial Decision Making*, *supra* note 8, at 1592; Findley & Scott, *supra* note 5, at 308-22; Susan Bandes, *Loyalty to One's Convictions: The Prosecutor and Tunnel Vision*, 49 HOW. L.J. 475, 492-94 (2006); Alafair S. Burke, *Prosecutorial Passion, Cognitive Bias, and Plea Bargaining*, 91 MARQ. L. REV. 183, 195-200 (2007). *See also* Gigerenzer & Goldstein, *supra* note 9, at 651 (citing HERBERT A. SIMON, MODELS OF BOUNDED RATIONALITY (1982)).

11. Psychologist Philip E. Tetlock argues that the same tendency exists among scientists studying social behavior: researchers focus on a particular level of analysis without communicating with others engaged in the study of other levels. Philip E. Tetlock, *The Impact of Accountability on Judgment and Choice: Toward a Social Contingency Model*, *in* 25 ADVANCES IN EXPERIMENTAL SOCIAL PSYCHOLOGY 331, 332 (Mark P. Zanna ed., 1992). For example, a researcher interested in micro-level

In Part III, I seek to synthesize the insights of both camps into one comprehensive view. Thus, I apply what cognitive research tells us about the general limits of human cognition to the prosecutor's unique institutional environment. To that end, I focus on accountability as an institutional feature with implications for prosecutorial decision making. I review the substantial body of psychological research exploring the ways in which different systems of accountability affect people's ability to process information in a thorough and evenhanded way.[12] This research generates testable predictions about how specific features of the criminal justice system can undermine prosecutors' objectivity. In particular, psychologists have found that when people must justify a decision to which they have already committed, they tend to engage in "defensive bolstering" – holding fast to that position even in the face of contrary evidence.[13] Thus, a system that rewards people for their ability to persuade others diminishes their willingness to acknowledge weaknesses in their arguments. The prosecutor's role as an advocate who must carry the highest evidentiary burden of proof imposes precisely this form of accountability and therefore fosters defensive bolstering.

In Part IV, I present the results of two experiments supporting this hypothesis. In both studies, people reviewed a homicide file with the expectation that they would be judged for their performance on certain tasks. The criteria by which participants expected to be judged varied depending on the experimental condition to which they were assigned; that is, participants were randomly assigned to review the case under a particular system of accountability. Those who expected to be judged for their ability to make a persuasive case against a suspect viewed the evidence against that suspect as more compelling than did participants in other conditions. In other words, the task of building a case to persuade others colored how they personally viewed the evidence.

In Part V, I discuss the implications of this research for reform. For many aspects of the prosecutor's job – namely, those related to the duty to

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decision-making cognitive processes may not integrate what she learns with research on group dynamics or organizational systems. *Id.* Likewise, the researcher who focuses on institutional structures may regard with skepticism the experiments favored by cognitive scientists because the laboratory setting does not provide a realistic context and thus fails to link their findings with the individual or small-group level processes. *Id.* at 331. *See also* Philip E. Tetlock, *Accountability Theory: Mixing Properties of Human Agents with Properties of Social Systems*, *in* SHARED COGNITION IN ORGANIZATIONS: THE MANAGEMENT OF KNOWLEDGE 117 (Leigh L. Thompson, J. M. Levine & D. M. Messick eds., 1999).

12. *See infra* Part III. For a review, see also Jennifer S. Lerner & Philip E. Tetlock, *Bridging Individual, Interpersonal, and Institutional Approaches to Judgment and Decision Making: The Impact of Accountability on Cognitive Bias*, *in* EMERGING PERSPECTIVES ON JUDGMENT AND DECISION RESEARCH 431 (Sandra L. Schneider & James Shanteau eds., 2003) [hereinafter *Impact of Accountability on Cognitive Bias*].

13. Jennifer S. Lerner & Philip E. Tetlock, *Accounting for the Effects of Accountability*, 125 PSYCHOL. BULL. 255, 257 (1999) [hereinafter *Effects of Accountability*].

advocate zealously – a one-sided view of the evidence presents no problem and may even enhance performance.[14] But when prosecutors are called upon to step out of the role of zealous advocate and instead to concern themselves with justice, these tendencies can undermine their ability to do so. I identify the situations that are likely to put prosecutors in this difficult position and argue that it is unrealistic to expect them to shift psychological gears gracefully to honor their dual roles.

II. THE PROSECUTOR'S CONFLICTING ROLES

An observer of the American trial system could easily conclude that the prosecutor operates at a disadvantage.[15] At trial, the prosecutor shoulders the burden of proving the defendant guilty beyond a reasonable doubt. The prosecutor may not ask the defendant – often the person with the most relevant information – any questions to dispute or substantiate the charges unless the defendant chooses to testify. The prosecutor gets only one shot at victory; a not-guilty verdict bars retrial. And when the prosecutor does manage to meet the high burden of proof to secure a guilty verdict, the defendant may still appeal, seeking a new trial or outright reversal. Moreover, some judges may cut the defense leeway on close evidentiary matters rather than risk reversal on appeal should the defendant lose.[16]

The rules that govern trial, however, give only part of the picture. Prosecutors enjoy certain advantages from the inception of a case. They are vested with substantial and virtually unreviewable discretion in deciding whom to charge and with what offenses.[17] They also enjoy an effective mo-

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14. For instance, research on persuasion shows that listeners often find unbalanced arguments more persuasive than those that address counterarguments. Jonathon Baron, *Myside Bias in Thinking About Abortion*, 1 THINKING & REASONING 221, 234-35 (1995). *See also* Dan Simon, *Freedom and Constraint in Adjudication: A Look Through the Lens of Cognitive Psychology*, 67 BROOK. L. REV. 1097, 1136 & n.93 (2002) (discussing Baron's study in the context of judicial decision making).

15. This conclusion would likely be shared by some participants. Judge Learned Hand expressed this view when he denied a defendant's request to inspect grand jury minutes:

> Under our criminal procedure the accused has every advantage. While the prosecution is held rigidly to the charge, he need not disclose the barest outline of his defense. He is immune from question or comment on his silence; he cannot be convicted when there is the least fair doubt in the minds of any one of the twelve. Why in addition he should in advance have the whole evidence against him to pick over at his leisure, and make his defense, fairly or foully, I have never been able to see.

United States v. Garsson, 291 F. 646, 649 (S.D.N.Y. 1923).

16. WILLIAM T. PIZZI, TRIALS WITHOUT TRUTH 138-39 (1999).

17. *See* Angela J. Davis, *Prosecution and Race: The Power and Privilege of Discretion*, 67 FORDHAM L. REV. 13, 20-25 (1998) [hereinafter *Prosecution and Race*]. For a discussion of why prosecutors need ample discretion to do their jobs

nopoly on fact-finding through their relationship with police.[18] These advantages have significant practical implications, as very few cases reach trial but are instead resolved by guilty pleas. Thus, much of the system's adjudication of guilt occurs outside the transparency of an adversarial trial.[19]

In light of this considerable power, the prosecution's primary duty "is not that it shall win a case, but that justice shall be done."[20] But precisely how an individual prosecutor can be both an effective adversary and a servant of justice is unclear and the subject of much scholarly interest.[21] In some situations, these goals will be at odds. A prosecutor who suspects that defense counsel is incompetent, for example, should arguably intervene to protect the rights of the defendant and ensure a fair trial, even though doing so could make it harder to convict that defendant – someone the prosecutor be-

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fairly and effectively, see Leslie C. Griffin, *The Prudent Prosecutor*, 14 GEO. J. LEGAL ETHICS 259 (2001).

18. As Professor Gershman argues,

> The prosecutor acquires relevant information in a variety of ways. By contrast, the defense attorney has no access to most of the prosecutor's data-gathering machinery. For example, the prosecutor at the earliest stages of a case can obtain police reports of investigative work, interviews of witnesses, scientific tests, and other field work; can force witnesses to appear before the grand jury and testify; can subpoena all documents and records relevant to the case; can acquire tangible and verbal evidence from court-ordered searches and electronic eavesdropping; and can obtain from well-staffed and experienced crime laboratories a variety of forensic proof.

Bennett L. Gershman, *The New Prosecutors*, 53 U. PITT. L. REV. 393, 449 (1992) (citation omitted). *See also* BENNETT L. GERSHMAN, PROSECUTORIAL MISCONDUCT § 4:1 (2d ed. 1999); Rory K. Little, *Proportionality as an Ethical Precept for Prosecutors in Their Investigative Role*, 68 FORDHAM L. REV. 723 (1999) (discussing prosecutors' role in investigation).

19. *See* Gerard E. Lynch, *Our Administrative System of Criminal Justice*, 66 FORDHAM L. REV. 2117, 2118 (1998) (arguing that the American criminal justice system is a de facto administrative law system and should therefore be governed by the same rules); Rachel E. Barkow, *Institutional Design and the Policing of Prosecutors: Lessons from Administrative Law*, 61 STAN. L. REV. 869, 871, 882-83, 887 (2009) (discussing the adjudicative power of federal prosecutors); Fred C. Zacharias & Bruce A. Green, *The Duty to Avoid Wrongful Convictions: A Thought Experiment in the Regulation of Prosecutors*, 89 B.U. L. REV. 1, 18 (2009) [hereinafter *Duty to Avoid Wrongful Convictions*] (They argued that "[p]rosecutions are not transparent. Only a small amount of prosecutors' work takes place in court. Even when a prosecutor's conduct is on the record, its propriety may depend on related off-the-record conduct."). Also, see Wayne R. LaFave & Jerold H. Israel, CRIMINAL PROCEDURE § 21.3(c) (3d ed. 2007), for a discussion of the prosecutor's discretion in setting terms of plea bargains.

20. Berger v. United States, 295 U.S. 78, 88 (1935).

21. *See, e.g.*, Uviller, *supra* note 5; Fisher, *supra* note 5; *"Seek Justice?," supra* note 5; *Can Prosecutors Do Justice?*, *supra* note 3.

lieves is guilty notwithstanding counsel's shortcomings.[22] A prosecutor's duty to litigate zealously can therefore be difficult to reconcile with the general exhortation to proceed fairly, and few formal rules exist to guide that process.[23]

A. The Dangers of Overzealous Advocacy

Prosecutorial misconduct can occur in many forms, both on and off the record.[24] More transparent transgressions occur when prosecutors offer inappropriate opening statements[25] or inflammatory closing arguments[26] at trial. As for behind-the-scenes offenses, prosecutors have been accused of coercing witnesses,[27] knowingly or recklessly offering perjured testimony,[28] over-

22. *See* Vanessa Merton, *What Do You Do When You Meet a "Walking Violation of the Sixth Amendment" if You're Trying to Put That Lawyer's Client in Jail?*, 69 FORDHAM L. REV. 997 (2000); Bruce A. Green, *Her Brother's Keeper: The Prosecutor's Responsibility When Defense Counsel Has a Potential Conflict of Interest*, 16 AM. J. CRIM. L. 323 (1989).

23. *See Can Prosecutors Do Justice?*, *supra* note 3; Peter A. Joy & Kevin C. McMunigal, *Are a Prosecutor's Responsibilities "Special"?*, CRIM. JUST., Spring 2005.

24. See *The American Prosecutor*, *supra* note 5, at 410-12, for a review of different contexts in which allegations of prosecutorial misconduct can arise.

25. *See, e.g.*, United States v. Lizardo, 445 F.3d 73, 86-87 (1st Cir. 2006) (prosecutor's opening statement improper because it contained three statements not supported by evidence); United States v. Thomas, 114 F.3d 228, 248 (D.C. Cir. 1997) (prosecutor may not state in opening that the government would produce certain inculpatory evidence and then fail to do so); United States v. Carraway, 108 F.3d 745, 761 (7th Cir. 1997) (prosecutor improperly commented during opening statement that majority of individuals named in indictment had "decided they ought to plead guilty").

26. *See, e.g.*, United States v. Mooney, 315 F.3d 54, 59 (1st Cir. 2002) (prosecutor may not appeal "to the jury to act in ways other than as dispassionate arbiters of the facts"); United States v. Elias, 285 F.3d 183, 190-92 (2d Cir. 2002) (prosecutor's characterization that the defendant's argument insulted the victim was improperly "designed to inflame the passions of the jury"); Copeland v. Washington, 232 F.3d 969, 975 (8th Cir. 2000) (prosecutor improperly "evok[ed] the jury's fear of crime" by comparing defendant "to violent drug gangs"); Drayden v. White, 232 F.3d 704, 712-13 (9th Cir. 2000) (prosecutor's closing argument improperly inflammatory when he delivered a soliloquy as if from the deceased victim); United States v. Phillips, 914 F.2d 835, 845 (7th Cir. 1990) (prosecutor's remarks that one defendant was a "'liar,'" another was a "'clumsy thick-tongued . . . thug,'" and others were "'bozos'" were improper but harmless).

27. *See, e.g.*, United States v. Morrison, 535 F.2d 223, 227 (3d Cir. 1976) (finding that prosecutor made a number of "highly intimidating" statements to a defense witness); United States v. Silverstein, 732 F.2d 1338, 1345 (7th Cir. 1984) (prosecutor accused of making remarks to witnesses that "were . . . excessive in number and badgering in tone or phrasing"); United States v. Schlei, 122 F.3d 944, 991, 997 (11th

charging defendants to extract a guilty plea,[29] and failing to disclose exculpatory information to the defense.[30]

Not everyone agrees on the precise scope of prosecutors' duty to play fair[31] or on the frequency and pervasiveness of their failure to do so.[32] But some evidence suggests that misconduct is not a mere aberration,[33] as some

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Cir. 1997) (granting defendant an evidentiary hearing on allegation that prosecutor "threatened [witness] with a loss of immunity from prosecution if he testified for the defense").

28. *See, e.g.*, N. Mariana Islands v. Bowie, 243 F.3d 1109, 1118 (9th Cir. 2001); United States v. LaPage, 231 F.3d 488, 492 (9th Cir. 2000) (finding prosecutor's failure to immediately correct witness's false statement improper); Mastracchio v. Vose, 274 F.3d 590, 602 (1st Cir. 2001) (finding prosecutor's failure to correct witness's false statement improper); Morris v. Ylst, 447 F.3d 735, 744 (9th Cir. 2006) (failure to investigate known inconsistencies in testimony suggested that prosecution improperly presented false testimony).

29. *See* Meares, *supra* note 7, at 861-72 (noting problems with prosecutors' discretion to overcharge defendants – that is, to charge them with crimes for which there is probable cause but likely not proof beyond a reasonable doubt – in an attempt to induce a guilty plea to a less serious charge).

30. Brady v. Maryland, 373 U.S. 83, 86 (1963) (holding that a prosecutor who withholds evidence favorable to the accused upon request violates the defendant's due process rights). *See, e.g.*, Conley v. United States, 415 F.3d 183, 191 (1st Cir. 2005) (duty to disclose evidence that only reliable eyewitness was hypnotized to help him recall events); Spicer v. Roxbury Corr. Inst., 194 F.3d 547, 560-61 (4th Cir. 1999) (duty to disclose inconsistent statements of key witness); Graves v. Dretke, 442 F.3d 334, 344-45 (5th Cir. 2006) (duty to disclose admission of state's witness that he rather than defendant committed the murder); White v. Helling, 194 F.3d 937, 943-46 (8th Cir. 1999) (duty to disclose police notes that suggested that police coached witness to identify defendant). *See also* Giannelli, *supra* note 5, 599, 604-05; Hoeffel, *supra* note 5, at 1135; Peter A. Joy, Brady *and Jailhouse Informants: Responding to Injustice*, 57 CASE W. RES. L. REV. 619 (2007) [hereinafter Brady *and Jailhouse Informants*].

31. For instance, Bruce Green says that "seeking justice" means "standing up to the police (when their investigations are inadequate), disregarding the public (when their expectations are unreasonable), and overcoming one's own self-interest or ennui." *"Seek Justice?," supra* note 5, at 642-43. Fred Zacharias argues that the prosecutor's duty is to ensure that the adversarial process works – not to ensure just or "accurate outcomes." *Can Prosecutors Do Justice?*, *supra* note 3, at 60.

32. *See, e.g.*, Warren Diepraam, *Prosecutorial Misconduct: It Is Not the Prosecutor's Way*, 47 S. TEX. L. REV. 773, 776-78 (2006) (arguing that documented instances of prosecutorial misconduct are relatively rare when considered in relation to the total number of cases prosecuted).

33. The Center for Public Integrity reviewed over eleven thousand cases in which defendants claimed prosecutorial misconduct. Steve Weinberg, Ctr. for Pub. Integrity, Breaking the Rules: Who Suffers When a Prosecutor Is Cited for Misconduct? (June 26, 2003), http://projects.publicintegrity.org/pm/default.aspx?act=main. Appellate courts granted relief on that basis in more than two thousand of those cases and agreed that misconduct occurred but deemed the error harmless in hundreds oth-

have argued.[34] And even if the vast majority of prosecutors do behave scrupulously, relatively rare instances of misconduct can have devastating consequences, as illustrated most forcefully by instances of prosecutorial misconduct in wrongful convictions.[35]

Focusing on prosecutorial misconduct, however, tells us only part of the story about prosecutors' willingness and ability to comply with the duty to administer justice. Prosecutors exercise their discretion in ways that are both

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ers. *Id.* *See also* Ctr. for Pub. Integrity, Methodology: How the Center Compiled Data for These Articles, http://www.publicintegrity.org/pm/default.aspx?act=methodology (last visited Feb. 11, 2009). Along similar lines, a study by Ken Armstrong and Maurice Possley of the *Chicago Tribune* found that, out of thousands of cases from a thirty-six-year period, 381 defendants had homicide convictions reversed due to prosecutorial misconduct. Maurice Possley & Ken Armstrong, *Trial & Error: Part 1: The Verdict: Dishonor*, CHI. TRIB., Jan. 10, 1999, § 1, at 1. *See also* Maurice Possley & Ken Armstong, *Trial & Error: Part 2: The Flip Side of a Fair Trial*, CHI. TRIB., Jan. 11, 1999, § 1, at 1; Maurice Possley & Ken Armstrong, *Trial & Error: Part 3: Prosecution on Trial in DuPage*, CHI. TRIB., Jan. 12, 1999, § 1, at 1; Maurice Possley & Ken Armstrong, *Trial & Error: Part 4: Reversal of Fortune*, CHI. TRIB., Jan. 13, 1999, § 1, at 1;. Maurice Possley & Ken Armstrong, *Trial & Error: Part 5: Break Rules, Be Promoted*, CHI. TRIB., Jan. 14, 1999, § 1, at 1. Bill Moushey of the *Pittsburgh Post-Gazette* conducted a similar study of more than fifteen hundred cases from a ten-year period and found evidence that prosecutors intentionally withheld exculpatory evidence in hundreds of those cases. Bill Moushey, *Win at All Costs*, PITTSBURGH POST-GAZETTE, *available at* http://www.postgazette.com/win/ (last visited Feb. 11, 2009) (a series report published in ten parts, from Nov. 22 – Dec. 13, 1998). *But see* Eric Holder, PITTSBURG POST-GAZETTE, *'Win at all Costs': The Justice Department Responds*, *available at* http://www.postgazette.com/win/justice.asp (last visited Feb. 11, 2009) (arguing that the study relied on unsupported allegations and overstated prevalence of prosecutorial misconduct).

34. For instance, the National District Attorneys Association characterized the highly publicized misconduct of the prosecutor who withheld exculpatory evidence in the rape cases against three Duke University Lacrosse players as "an aberration." Laura Parker, *Trial This Week for Prosecutor in Duke Case: Mike Nifong to Face Ethics Charges*, USA TODAY, June 11, 2007, at 3A. Regarding a case of prosecutorial misconduct in Tulia, Texas, Oregon district attorney and board member of the National District Attorneys Association Joshua Marquis described prosecutorial misconduct as "'more episodic than epidemic.'" Laura Parker, *Court Cases Raise Conduct Concerns*, USA TODAY, June 26, 2003, at 3A.

35. The Innocence Project reports that thirty-three of the first seventy-four DNA exonerations involved some sort of prosecutorial misconduct, such as the suppression of exculpatory evidence, knowing use of false testimony, witness coercion, improper statements to the jury, and evidence fabrication. The Innocence Project, Understand the Causes: Government Misconduct, http://www.innocenceproject.org/understand/Government-Misconduct.php (last visited Feb. 7, 2009). *See also* Hugo Adam Bedau & Michael L. Radelet, *Miscarriages of Justice in Potentially Capital Cases*, 40 STAN. L. REV. 21 (1987) (presenting evidence that 350 innocent people have been convicted of capital murders and that a significant number of these cases involved claims that prosecutors suppressed evidence).

well intentioned and within the law but that nevertheless profoundly affect the accuracy and fairness of the system.[36] False convictions – the most dramatic examples of the system's failure – often involve honest mistakes by ethical investigators and prosecutors.[37] Defendants rarely have the resources to conduct comparable investigations and may be limited in their access to the information that the government has collected.[38] Ideally, prosecutors offer a fresh pair of eyes to review investigators' work and ensure that police do not become so committed to building a case against a particular suspect that they overlook other leads. In light of their unique position to ensure thorough and evenhanded investigations, any bias that impairs their ability to serve as objective ministers of justice can undermine the system's integrity.

B. Why the Duty to Advocate Can Trump Justice Obligations

Sometimes the reasons a prosecutor favors the role of advocate over that of evenhanded minister of justice seem obvious. Prosecutors who intentionally violate clearly defined rules in order to achieve high-profile wins do so for the self-interested but understandable desire to advance their careers. Focusing on achieving convictions at the expense of other goals is a rational response to institutional incentives.[39] High conviction rates bolster reelection campaigns and funding requests. They also help an individual prosecutor advance within the office; indeed, winning is considered such a reliable indicator of work quality that some offices require a prosecutor to file a report explaining why a trial ended in acquittal, imposing no such requirement for convictions.[40]

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36. *See Duty to Avoid Wrongful Convictions*, *supra* note 19, at 8-9 (noting that "legitimate adversarial behavior can contribute to a wrongful conviction simply because it exploits defects for which others are primarily responsible").

37. See Samuel R. Gross, Kristen Jacoby, Daniel J. Matheson, Nicholas Montgomery & Sujata Patil, *Exonerations in the United States 1989 Through 2003*, 95 J. CRIM. L. & CRIMINOLOGY 523, 542-46 (2005) [hereinafter *Exonerations in the United States*], for a discussion of the causes of false convictions.

38. *See* Weatherford v. Bursey, 429 U.S. 545, 559 (1977) (holding that "[t]here is no general constitutional right to discovery in a criminal case").

39. *See* Stephanos Bibas, *Plea Bargaining Outside the Shadow of Trial*, 117 HARV. L. REV. 2463, 2471 (2004) (arguing that "[f]avorable win-loss statistics boost prosecutors' egos, their esteem, their praise by colleagues, and their prospects for promotion and career advancement"); *Can Prosecutors Do Justice?*, *supra* note 3, at 108 (noting that cautious prosecutors risk convicting at a lower rate and "appear[ing] less competent to their superiors").

40. Medwed, *supra* note 7, at 137, 153. *See also* Erwin Chemerinsky, *The Role of Prosecutors in Dealing with Police Abuse: The Lessons of Los Angeles*, 8 VA. J. SOC. POL'Y & L. 305, 321 (2001) (citing as an example of this practice the Los Angeles District Attorney's Office, where promotions depend in part on conviction rates.).

Yet while the motivation is simple, the decision-making processes at work may be more complicated. Even when prosecutors engage in the most egregious forms of misconduct, such as by failing to disclose exculpatory evidence or knowingly presenting perjured testimony, they presumably do not do so with the cold and calculating intent to frame an innocent person. The wrongdoers likely believe that they have the right person and are aiding the pursuit of justice – a worthy goal that they may feel the system unjustifiably impedes by valuing adherence to rigid procedural rules at the expense of accuracy.

To better understand these thought processes, it is useful to consider research on common cognitive biases – that is, the ways in which people predictably and systematically deviate from perfect rationality in judgments and decision making.[41] Of particular relevance to prosecutorial decision making is the tendency to evaluate information selectively so that it confirms preexisting or favored beliefs.[42] Substantial psychological research demonstrates that what people want to see influences what they do see.[43] Motives can bias inferences and conclusions by subtly influencing the cognitive processes people use in their reasoning. This does not mean that people see only what they want or expect to see, but they do select cognitive processes and strategies to make the desired or anticipated conclusion more likely.[44] This tendency to seek and interpret evidence in ways that support existing or favored beliefs is commonly called "confirmation bias," which is the "inappropriate bolstering of hypotheses or beliefs whose truth is in question."[45]

Confirmation bias connotes something more subtle and less conscious than the deliberate case building that any attorney must do to prepare for trial. Rather, someone exhibiting confirmation bias might be oblivious to the preference for evidence that favors a particular hypothesis. Even when they initially approached the evidence with objectivity, once people take a position their priority is to defend it.[46]

Significant experimental evidence indicates that confirmation bias is a robust phenomenon that manifests in many contexts. One way in which it unfolds is through the primacy effect. Someone forms an opinion early in the process and then evaluates all new information in a way that supports that opinion.[47] Similar to the primacy effect is belief perseverance. Once people

41. *See Improving Prosecutorial Decision Making*, *supra* note 8, at 1593-1602. *See generally* JUDGMENT UNDER UNCERTAINTY, *supra* note 8.

42. See Findley & Scott, *supra* note 5, for an excellent discussion of the ways in which common cognitive biases can affect a criminal prosecution at all stages.

43. For a review of the psychological research on confirmation bias, see Raymond S. Nickerson, *Confirmation Bias: A Ubiquitous Phenomenon in Many Guises*, 2 REV. GEN. PSYCHOL. 175 (1998).

44. KUNDA, *supra* note 8.

45. Nickerson, *supra* note 43, at 175.

46. *Id.*

47. *Id.*

form a belief, they may resist changing it even when compelling evidence contradicts it.[48] That belief perpetuates itself by coloring how the person evaluates and interprets new evidence. People are more likely to question evidence that contradicts their hypothesis and to accept evidence that is consistent with it; they also tend to interpret ambiguous evidence as confirming their initial hypothesis.[49]

A preference for hypothesis-consistent information affects not only how people interpret evidence but also what new information they seek. Once a hypothesis is formed, people search for information that supports that hypothesis rather than an alternative.[50] That is, they unconsciously assume that the hypothesis in question is true and search for evidence accordingly. They are not completely indifferent to contrary information, but assuming the truth of the hypothesis causes them to undervalue that evidence or not to notice it in the first place. This can undermine accuracy by leading the hypothesis tester to overlook evidence that the favored hypothesis is false or that an alternative is plausible.[51]

In light of these common cognitive tendencies, consider the multiple and sometimes competing goals a prosecutor holds. The prosecutor, like anyone, wants to succeed, but how one defines success depends on the goals at hand. Surely the prosecutor wants to make accurate decisions – correctly identify-

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48. Craig A. Anderson et al., *Perseverance of Social Theories: The Role of Explanation in the Persistence of Discredited Information*, 39 J. OF PERSONALITY & SOC. PSYCHOL. 1037 (1980).

49. Nickerson, *supra* note 43. The decision maker weighs confirming evidence more heavily than disconfirming evidence. This may occur because confirming events tend to be more salient than disconfirming events. THOMAS GILOVICH, HOW WE KNOW WHAT ISN'T SO: THE FALLIBILITY OF HUMAN REASON IN EVERYDAY LIFE (1991). Moreover, plausible alternative explanations of an apparently confirmatory event do not readily come to mind. Psychics, for example, exploit this tendency. Baruch Fischhoff & Ruth Beyth-Marom, *Hypothesis Evaluation from a Bayesian Perspective*, 90 PSYCHOL. REV. 239 (1983). Just by chance, self-proclaimed mind readers or communicators with the dead get some facts right. When their customers hear both correct and incorrect information, they focus on what the psychic got right and ignore the mistakes. This tendency to focus on positive information stems from the inclination to see or remember what one expects to see. For example, teachers rate children's performance in line with expectations based on the children's socioeconomic status, John M. Darley & Paget H. Gross, *A Hypothesis-Confirming Bias in Labeling Effects*, 44 J. PERSONALITY & SOC. PSYCHOL. 20, 28 (1983), and hypochondriacs perceive symptoms consistent with the diseases they fear. *See* James W. Pennebaker & J.A. Skelton, *Psychological Parameters of Physical Symptoms*, 4 PERSONALITY & SOC. PSYCHOL. BULL. 524, 529 (1978).

50. Joshua Klayman & Young-Won Ha, *Confirmation, Disconfirmation, and Information in Hypothesis Testing*, 94 PSYCHOL. REV. 211, 225 (1987).

51. Eva Jonas et al., *Confirmation Bias in Sequential Information Search After Preliminary Decisions: An Expansion of Dissonance Theoretical Research on Selective Exposure to Information*, 80 J. PERSONALITY & SOC. PSYCHOL. 557, 557 (2001).

ing and convicting the guilty, as well as ruling out the innocent. She wants to do so efficiently and with the approval of those whose opinions matter: superiors in the office, voters, peers, and judges. And, of course, she wants to win – it feels better than losing – so long as it is achieved in a way that can be reconciled with her values and personal identity.[52]

Sometimes these goals are in conflict with each other. Accuracy always matters, but different kinds of errors bring different consequences. In a close case, the relative harm of not pursuing a guilty suspect must be weighed against that of prosecuting an innocent one. Accuracy must also be weighed against efficiency: proceeding quickly and decisively against a suspect may preclude pursuing alternate avenues of investigation. And once a prosecutor decides to proceed against a suspect, changing course in response to every new piece of information could be perceived by superiors (and perhaps ultimately voters) as weak and indecisive.

Indeed, a prosecutor's more pressing motivation is to pursue cases aggressively, not cautiously. Chief prosecutors are typically elected officials and therefore subject to political pressure to be tough on crime.[53] But more subtle influences also encourage prosecutors to favor errors of commission over those of omission. The goals of any criminal investigation are to solve the crime and hold someone responsible. Accuracy matters, of course, but so does the conviction. Once a suspect has been identified and charged, prosecutors can avoid errors of commission (prosecuting an innocent) by attempting to falsify the hypothesis that the suspect is in fact guilty. In other words, like a scientist testing a hypothesis, prosecutors can seek to avoid prosecuting innocent defendants by initially trying to disprove to themselves the defendants' guilt. But doing so does not immediately achieve the affirmative goal of holding someone accountable for this crime. In ambiguous or complex cases, the tendency to retain a favored hypothesis, when doing so renders the case solved, might be more powerful than the desire to falsify a hypothesis.[54]

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52. See *Social Contingency Model – Error-and-Bias*, *supra* note 9, for a discussion of multiple motives.

53. Samuel R. Gross, *The Death Penalty and Adversarial Justice in the United States*, *in* ADVERSARIAL VERSUS INQUISITORIAL JUSTICE: PSYCHOLOGICAL PERSPECTIVES ON CRIMINAL JUSTICE SYSTEMS 107 (Peter J. van Koppen & Steven D. Penrod eds., 2003). *See also* Medwed, *supra* note 7, at 153 (observing that ordinary voters are more likely to see themselves as potential victims than potential defendants).

54. Professor Felkenes refers to this focus as a "'conviction psychology,'" which he found to be more pronounced in more experienced prosecutors. George T. Felkenes, *The Prosecutor: A Look at Reality*, 7 SW. U. L. REV. 98, 111 (1975). *See also* Jeff Peabody, Prosecutorial Liability for Wrongful Convictions, 20 (May 8, 2008) (unpublished manuscript), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1130250 (offering an economic model to argue that under current system of incentives and deterrents "prosecutors will tend to over-prosecute generally, and are more likely than not to pursue a conviction in 'close cases'").

Moreover, although it may be impossible to determine the exact percentage of defendants who are actually guilty of the charges they face, it seems safe to assume that most of the time the prosecutor gets it right. Often the evidence leaves little doubt that the defendant is guilty. Indeed, it would be quite surprising (and disturbing) if prosecutors were charging innocent people even ten percent of the time.[55] Additionally, prosecutors often decline to proceed against defendants despite compelling evidence of guilt because of problems that make a case hard to try, such as uncooperative witnesses or mishandling of evidence; this culling likely reduces the number of cases brought against innocent defendants even further. In light of the presumably very high base rate of guilt among those charged with crimes, avoiding errors of commission may seem like a remote and primarily theoretical concern.

In contrast, the prosecutor is highly motivated to avoid errors of omission. To succeed at trial, prosecutors must accomplish an affirmative task – proving the suspect's guilt beyond a reasonable doubt. They cannot succeed by merely deflecting arguments of defense counsel: they must actively establish every element of the charge. The prosecutor who pursues a case with inadequate vigor therefore risks the acquittal of a guilty defendant. Like debaters preparing for a match, prosecutors prepare for trial by amassing evidence to bolster their hypotheses. Once the case reaches this stage, they consider opposing views not in an effort to falsify their hypotheses but to anticipate counterarguments in order to point out weaknesses in the defense. Prosecutors are certainly not indifferent to the risk of convicting an innocent defendant, but the system does not provide them with incentives to falsify a favored hypothesis comparable to those motivating them to confirm what they already believe to be true about a case.

Prosecutors face an additional psychological deterrent to entertaining doubts about a case: cognitive dissonance. Cognitive dissonance refers to the tension created when someone's thoughts or beliefs are incompatible with his or her behavior.[56] If the inconsistency between the thoughts and behavior can

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55. Estimating the rate of false convictions is challenging, given that we only know about the errors we catch. *See* Samuel R. Gross & Barbara O'Brien, *Frequency and Predictors of False Conviction: Why We Know So Little, and New Data on Capital Cases*, 5 J. EMPIRICAL LEGAL STUD. 927, 929-30 (2008) (finding a wrongful conviction rate among defendants sentenced to death since 1973 of at least 2.3%). Michael D. Risinger, *Innocents Convicted: An Empirically Justified Factual Wrongful Conviction Rate*, 97 J. CRIM. L. & CRIMINOLOGY, 761 (2006) (estimating that 3.3% of defendants sentenced to death from 1982 through 1989 for rape-murder were actually innocent). But the rate of false prosecution – where an innocent person is brought to trial – is even more difficult to estimate given that some of those cases will end in acquittal, which ends the matter but does not provide a definitive answer about whether the state prosecuted an innocent person or simply failed to prove its case against a guilty defendant.

56. Leon Festinger & James M. Carlsmith, *Cognitive Consequences of Forced Compliance*, 58 J. OF ABNORMAL & SOC. PSYCHOL. 203, 203 (1959).

be easily explained, no dissonance arises and there is no need to reconcile the two.[57] Defense attorneys who believe that their clients are guilty must nevertheless defend them to the best of their ability, which may require disingenuously arguing the clients' innocence. No dissonance arises because, although their behavior is inconsistent with their beliefs, there is an obvious external justification for the behavior: the duty to advocate. In contrast, a prosecutor who has doubts about a defendant's guilt should arguably not proceed.[58] Doubts about the defendant's guilt must be squared somehow – by either altering the behavior (dropping the charges) or changing those thoughts (reconciling them with the defendant's guilt). So long as the case proceeds, the prosecutor must find some way to accommodate any new information or arguments calling into question the defendant's culpability.

C. An Illustration: The Central Park Jogger Case

Attributing the decisions of a prosecutor in a given case to the cognitive processes outlined above is as problematic as attributing a particular storm to climate change. Nevertheless, some cases serve as useful illustrations of how these biases might manifest themselves in a criminal prosecution. Consider,

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57. Festinger and Carlsmith tested this hypothesis in an experiment in which student participants were assigned a boring and unpleasant task. *Id.* at 204-06. Once they had completed the task, the experimenters asked them to try to convince another potential participant that the task was actually enjoyable. *Id.* at 205. The experimenters paid some of the participants $20 (quite a sum to a college student in the 1950s) but only $1 to the others. *Id.* A third control group performed the tedious task but was not asked to persuade anyone that it was engaging. *Id.* at 207. When later asked about the pleasantness of the original task, participants in the $1 condition rated it as more interesting than did those paid nothing or $20. *Id.* at 207-08. Festinger and Carlsmith argued that the students asked to persuade others that the task was fun experienced dissonance between their thoughts (that the task was boring) and their behavior (telling someone that it was fun). *Id.* at 207. Participants paid $20 had a ready explanation for this contradiction and therefore did not feel compelled to alter their original cognitions. *Id.* at 208. Those paid a paltry $1 did not have such an obvious justification. *Id.* Thus, they reconciled the inconsistency between their thoughts and behavior by internalizing what they had said about the task. *Id.*

58. Many scholars have argued that a prosecutor must be personally convinced of the suspect's guilt before properly proceeding. *See, e.g.*, *"Seek Justice?," supra* note 5, at 641 (citing Bennett L. Gershman, *A Moral Standard for the Prosecutor's Exercise of the Charging Discretion*, 20 FORDHAM URB. L.J. 513, 530 (1993)); Bennett L. Gershman, *The Prosecutor's Duty to Truth*, 14 GEO. J. LEGAL ETHICS 309, 309 (2001). The ABA's Model Rules propose a less rigorous standard, prohibiting prosecutors from proceeding only when "a charge . . . is not supported by probable cause." MODEL RULES OF PROF'L CONDUCT R. 3.8 (2007). *See* Bruce A. Green, *Prosecutorial Ethics as Usual*, 2003 U. ILL. L. REV. 1573, 1588 (arguing that Model Rule 3.8(a) "deals with only one aspect of prosecutorial discretion – the core decision whether to prosecute a criminal charge – and incorporates a standard that is both too low and incomplete").

for instance, the notorious case of the "Central Park jogger."[59] In 1989, five teenagers confessed to raping and severely beating a woman as she jogged through Central Park.[60] They quickly retracted their statements, alleging that police had coerced their confessions.[61] No physical or eyewitness evidence linked the suspects to the attack; in fact, semen recovered from the victim appeared to come from only one person.[62] Nevertheless, a jury convicted all five.[63] In 2002, another man convicted of committing several other rapes in the area around the same time confessed to the crime.[64] His DNA matched the semen recovered from the victim, and a judge ultimately overturned the original defendants' convictions.[65]

That the original detectives and prosecutors got such an important case so wrong is remarkable, but their reactions to the defendants' exonerations were even more so. Linda Fairstein, the lead prosecutor in the original case, says she is still certain of the original suspects' guilt.[66] Although none of the teenagers mentioned a sixth perpetrator in his confession, she proposed that the man whose DNA was found simply finished the attack the teenagers started.[67] One former detective who worked on the case, Mike Sheehan, proclaimed that he was "outraged" by the district attorney's report calling for the convictions to be overturned.[68] Even though DNA testing corroborated the new suspect's story that he raped the victim, Sheehan was dismayed that anyone would believe him: "This lunatic concocts this wild story and these people fell for it . . . ."[69]

The detective's and prosecutor's statements demonstrate the intensity of their commitment to their theory of the case. Either they find evidence that severely undermines the case against the five original suspects incredible, or they modify their version of events just enough to accommodate the new evidence within their original theory. The length of time between the convictions and the revelation of their mistake probably contributed to the intense

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59. Sydney H. Schanberg, *A Journey Through the Tangled Case of the Central Park Jogger: When Justice Is a Game*, VILLAGE VOICE, Nov. 26, 2002, at 36, *available at* http://www.villagevoice.com/content/printVersion/172653.

60. *Id.*

61. *Id.*

62. *Id.*

63. *Id.*

64. *Id.*

65. *Id.*

66. Jeffrey Toobin, *A Prosecutor Speaks Up (About the Central Park Jogger Case)*, NEW YORKER, Dec. 2, 2002, at 42.

67. *Id.* Samuel Maull, *DA Asks Convictions Be Thrown Out*, MOBILE REGISTER, Dec. 6, 2002, § A.

68. Robert D. McFadden & Susan Saulny, *A Crime Revisited: The Decision; 13 Years Later, Official Reversal in Jogger Attack*, N.Y. TIMES, Dec. 6, 2002, § A1, at 1.

69. Andy Geller & Dareh Gregorian, *Rape Fiend Couldn't ID Spot Jogger Was Found*, N.Y. POST, Dec. 7, 2002, at 8.

nature of their reactions. It would be easier to admit a mistake before a suspect has been convicted than after the person has spent years in prison. Indeed, it seems unlikely that the investigators would have been so certain that multiple perpetrators were involved had they learned of the lone rapist before the teens were identified as prime suspects. But, once committed to that theory, they interpreted ambiguous and even contrary evidence as consistent with it.

While the Central Park jogger case is an extreme example, the psychological dynamics on display operate in less sensational cases as well.[70] At some point in every case, investigators must form a theory about what happened and who was involved. The investigation then changes from figuring out what happened to proving it. Once the prosecutor steps in and charges someone for that crime, she has, to some degree, committed to a theory, even if the investigation continues. That commitment affects not only how the prosecutor interprets existing evidence but also the interpretation of new information as the case moves to trial and beyond.[71] When the prosecutor is acting as an advocate, a biased view of the evidence probably does not matter. Nor should it matter when the defendant is in fact guilty as charged. But when the system relies on the prosecutor to exercise objectivity in service of goals besides advocacy, these very human tendencies can pose a serious problem, particularly on the (presumably) rare occasion that the prosecutor gets it wrong and charges an innocent defendant.

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70. Indeed, there have been other instances of prosecutors maintaining a belief in a defendant's guilt despite overwhelming evidence of innocence. For instance, in 1984 Earl Washington was convicted and sent to death row for the murder and rape of a young woman. Washington v. Commonwealth, 323 S.E.2d 577, 581 (Va. 1984). DNA testing later excluded Washington as the source of the semen found on the victim. Hilary S. Ritter, Note, *It's the Prosecution's Story, But They're Not Sticking to It: Applying Harmless Error and Judicial Estoppel to Exculpatory Post-Conviction DNA Testing Cases*, 74 FORDHAM L. REV. 825, 844 (2005). Prosecutors maintained, however, that Washington must have been assisted by an unidentified perpetrator, even though the victim had survived long enough to tell police that only one man had attacked her. *Id.* at 844. *See also* James S. Liebman, *The New Death Penalty Debate: What's DNA Got to Do with It?*, 33 COLUM. HUM. RTS. L. REV. 527, 543 (2002) (arguing that "prosecutors have become more sophisticated about hypothesizing the existence of 'unindicted co-ejaculators' . . . to explain how the defendant can still be guilty, though another man's semen is found on the rape-murder victim"); Adam Liptak, *Prosecutors Fight DNA Use for Exoneration*, N.Y. TIMES, Aug. 29, 2003, § A1, at 1 (discussing two Florida cases in which prosecutors maintained defendants' guilt despite DNA testing excluding them as the source of biological evidence).

71. *See* Findley & Scott, *supra* note 5 (discussing ways in which cognitive biases affect every stage of adjudication).

III. PSYCHOLOGICAL IMPLICATIONS OF SYSTEMS OF ACCOUNTABILITY

Overzealous prosecutors present precisely the sort of problem that seems to beg for the imposition of greater accountability.[72] When a system of accountability works, it does so not only by enabling an institution to weed out underperforming and dishonest actors but also by affecting the decision making of the actors within an institution. It prompts those inclined to be lazy or dishonest to re-weigh the costs and benefits of indulging their natural inclinations and to change their behavior accordingly.[73]

But accountability brings with it subtler, perhaps even unconscious, effects on its targets. Beyond deterring unambiguously bad decisions (like stealing and lying) or encouraging unambiguously good ones (like working harder), accountability affects the process of decision making – what people think about, how deeply they think about it, and how they weigh relevant data.

A. Psychological Research on the Effects of Accountability

Psychologists who study accountability define it broadly as the experience of feeling pressure to justify judgments or decisions to others.[74] Under the right conditions, imposing accountability on decision makers can make them more thorough and objective. Whether it does so, however, depends on several features of the situation.

For instance, when people know in advance that they will have to justify a decision to a well-informed audience, they tend to consider evidence in a way that is both more evenhanded and thorough, and they are less influenced

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72. For a discussion of how the usual sanctions for prosecutorial misconduct fall short, see *Remedies for a Broken System*, *supra* note 7, at 426-27; *Failure to Discipline Unethical Prosecutors*, *supra* note 7; Richard A. Rosen, *Disciplinary Sanctions Against Prosecutors for* Brady *Violations: A Paper Tiger*, 65 N.C. L. REV. 693, 697 (1987); Joseph R. Weeks, *No Wrong Without a Remedy: The Effective Enforcement of the Duty of Prosecutors to Disclose Exculpatory Evidence*, 22 OKLA. CITY U. L. REV. 833 (1997); *Duty to Avoid Wrongful Convictions*, *supra* note 19, at 4; Ellen Yaroshefsky, *Wrongful Convictions: Is It Time to Take Prosecution Discipline Seriously?*, 8 D.C. L. REV. 275, 277 (2004); Fred C. Zacharias, *The Professional Discipline of Prosecutors*, 79 N.C. L. REV. 721, 755-62 (2001).

73. *See* Budzilowicz, *supra* note 7 (proposing measures for holding prosecutors accountable).

74. *Effects of Accountability*, *supra* note 13, at 255; Karen Siegel-Jacobs & J. Frank Yates, *Effects of Procedural and Outcome Accountability on Judgment Quality*, 65 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 1 (1996).

by previous beliefs.[75] Particularly when the audience's views are unknown, the accountable person becomes a more flexible and balanced thinker, actively considering counterarguments and conflicting viewpoints.[76] One is more likely in that situation to engage in the challenging cognitive tasks that demonstrate careful and high-quality decision making, such as staying open to new information, thinking about a range of possibilities, and integrating inconsistencies in a sophisticated manner.[77]

But a very different phenomenon occurs when people learn of their accountability only after encoding the information and committing to a decision. Instead of engaging in balanced and thorough reasoning, they seek reasons to bolster that decision in an effort to justify their conclusions.[78] This defensive bolstering is particularly likely when there are sunk costs associated with that decision. For instance, one study found that administrators were most likely to commit more resources to a failing policy when they felt vulnerable; that is, they held fast to earlier decisions when their jobs were at risk

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75. Philip E. Tetlock & Jae Il Kim, *Accountability and Judgment Processes in a Personality Prediction Task*, 52 J. PERSONALITY & SOC. PSYCHOL. 700, 700 (1987). When expecting to communicate to an audience whose views are known, however, people tend to engage in less effortful processing and instead adopt views similar to those of the audience. Philip E. Tetlock, *Accountability and Complexity of Thought*, 45 J. PERSONALITY & SOC. PSYCHOL. 74 (1983).

76. Jennifer S. Lerner, Julie H. Goldberg & Philip E. Tetlock, *Sober Second Thought: The Efforts of Accountability, Anger, and Authoritarianism on Attributions of Responsibility*, 24 PERSONALITY & SOC. PSYCHOL. BULL. 563, 564 (1998); Philip E. Tetlock et al., *Social and Cognitive Strategies for Coping with Accountability: Conformity, Complexity, and Bolstering*, 57 J. PERSONALITY & SOC. PSYCHOL. 632, 633 (1989) [hereinafter *Conformity, Complexity, and Bolstering*]. For instance, researchers have found that people who expect to be accountable to an audience with unknown views processed information in a more complex and nuanced way than did their non-accountable counterparts. Shelly Chaiken, *Heuristic Versus Systematic Information Processing and the Use of Source Versus Message Cues in Persuasion*, 39 J. PERSONALITY & SOC. PSYCH. 752 (1980); Roger Hagafors & Berndt Brehmer, *Does Having to Justify One's Judgments Change the Nature of the Judgment Process?*, 31 ORGANIZATIONAL BEHAV. & HUM. PERFORMANCE 223, 230-31 (1983). Other researchers have found that people held accountable in this way relied less on stereotypes in forming judgments. Galen V. Bodenhausen, Geoffrey P. Kramer & Karin Süsser, *Happiness and Stereotypic Thinking in Social Judgment*, 66 J. PERSONALITY & SOC. PSYCHOL. 621, 629 (1994). They also tend to display less overconfidence in their predictions and take more situational factors into account. Philip E. Tetlock, *Accountability: A Social Check on the Fundamental Attribution Error*, 48 SOC. PSYCHOL. Q. 227, 233-34 (1985).

77. IRVING L. JANIS & LEON MANN, DECISION MAKING: A PSYCHOLOGICAL ANALYSIS OF CONFLICT, CHOICE, AND COMMITMENT 344 (1977).

78. Tetlock & Kim, *supra* note 75, at 707; *Conformity, Complexity, and Bolstering*, *supra* note 76, at 633.

and they had to justify their choices to a skeptical board of directors.[79] Compared to their unaccountable counterparts, accountable administrators were reluctant to admit mistakes and write off sunk costs.[80] In that situation, rather than improving decision making, accountability led them to engage in simplistic and self-serving bolstering of policies to which they had previously committed.[81]

Timing is not the only factor that determines whether accountability reduces or amplifies bias. The precise nature of accountability matters too. That is, precisely *what* the decision maker is accountable for affects the type and extent of judgment errors. One study found that people who were accountable for their decisions' ultimate outcomes adamantly defended those decisions.[82] In contrast, people who were accountable solely for the process by which they made decisions were less adamant: so long as they were fair in their decision-making process, they did not fear criticism for bad outcomes. They evaluated alternatives more thoroughly and were less committed to earlier decisions.[83]

Moreover, what constitutes a successful outcome depends on the goal at hand. Sometimes a successful outcome is defined not by achieving accuracy in judgments of historical facts and causality but by convincing someone else that you have. The knowledge that one will be judged on the ability to persuade others of the correctness of a judgment or decision affects how one

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79. Frederick V. Fox & Barry M. Staw, *The Trapped Administrator: Effects of Job Insecurity and Policy Resistance upon Commitment to a Course of Action*, 24 ADMIN. SCI. Q. 449, 465, 467 (1979).

80. *Id.*

81. *Id.*

82. Itamar Simonson & Barry M. Staw, *Deescalation Strategies: A Comparison of Techniques for Reducing Commitment to Losing Courses of Action*, 77 J. APPLIED PSYCHOL. 419, 424-25 (1992).

83. *Id. See also* Jonas et al., *supra* note 51, at 569-70 (finding that study participants accountable for the decision-making process displayed less preference for hypothesis-consistent information); Siegel-Jacobs & Yates, *supra* note 74 (finding that participants accountable for decision-making process made more accurate judgments than did participants accountable for decisions). Being held accountable for asking the right questions rather than getting the right answer may lead people to conduct a better review of the evidence because it is a less stressful task. No matter how hard someone tries, there is no guarantee that this effort will yield the right answer. But the manner in which one chooses to investigate is within one's control. Thus, people who will be evaluated based on whether the procedure they used was justifiable, as opposed to its outcome, face a less uncertain task than people who will be judged for achieving a particular outcome. A challenging but solvable problem produces a moderate to low amount of stress, which enhances judgment and decision making by encouraging careful and systematic consideration of all the evidence. Siegel-Jacobs & Yates, *supra* note 74. *See also* Hal R. Arkes, Robin M. Dawes & Caryn Christensen, *Factors Influencing the Use of a Decision Rule in a Probabilistic Task*, 37 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 93, 107-08 (1986).

processes relevant information.[84] Precisely how this knowledge affects reasoning depends in part on whether the person set to communicate the information has already expressed an opinion on the matter. Generating reasons to support an extant decision or opinion evokes different ways of thinking than does generating reasons in an effort to decide which decision or opinion is best.[85] Once someone expresses a position, additional reasoning tends to be in service of bolstering that position, rather than re-evaluating it in light of additional information or viewpoints. This argumentative mode of reasoning tends to be more simplistic and to entail less self-criticism.[86]

Accountability therefore offers a way to improve the quality of some aspects of decision making but only under certain conditions. If thorough and evenhanded consideration of all the evidence is the goal, a decision maker must know in advance that she will have to justify not the outcome of her decision but the process by which she reached it. This expectation induces decision makers to evaluate alternative hypotheses even-handedly as they process information and to seek additional information that conflicts with their favored hypothesis. In contrast, those held accountable for achieving a particular outcome – such as persuading others of the correctness of a position – will tailor their reasoning to bolster that position. Thus, far from offering a homogenous panacea for any situation in which people underperform or

84. In fact, even expecting just to communicate information to others implicates particular ways of organizing and processing information. Zajonc found that study participants who expected to transmit information created simpler and more polarized cognitive structures than did people who expected to receive information. Robert B. Zajonc, *The Process of Cognitive Tuning in Communication*, 61 J. OF ABNORMAL & SOC. PSYCH. 159 (1960). To convey information effectively to others, the speaker organizes her thoughts around succinct and easily understandable points; the person who expects to receive more information, in contrast, must hold off on closing certain threads in order to allow for the integration of new information. *See also* E. Tory Higgins, C. Douglas McCann & Rocco Fondacaro, *The "Communication Game": Goal-directed Encoding and Cognitive Consequences*, 1 SOC. COGNITION 21 (1982); Denise Haunani Cloven & Michael E. Roloff, *Cognitive Tuning Effects of Anticipating Communication on Thought About an Interpersonal Conflict*, 8 COMM. REP. 1, 2 (1995).

85. Professor Raymond Pingree describes the former as "argument" and the latter as "deliberation." Raymond J. Pingree, *How Messages Affect Their Senders: A More General Model of Message Effects and Implications for Deliberation*, 17 COMM. THEORY 439, 449 (2007).

86. *Id. Conformity, Complexity, and Bolstering*, *supra* note 76, at 638. See also Carsten K. W. De Dreu & Daan van Knippenberg, *The Possessive Self as a Barrier to Conflict Resolution: Effects of Mere Ownership, Process Accountability, and Self-Concept Clarity on Competitive Cognitions and Behavior*, 89 J. PERSONALITY & SOC. PSYCHOL. 345, 355-56 (2005), who found that study participants who expressed an opinion in a debate displayed ego-defensive reactions when others challenged their positions and became entrenched in the expressed opinion. In contrast, participants who expected to be judged only based on the quality of the reasoning process itself engaged in more cautious reasoning.

misbehave, systems of accountability can vary in subtle ways with unintended consequences on the targeted actors.

B. Features of the Prosecutor's Job as a System of Accountability

Consider now the features of the prosecutor's job in light of what the psychological research on accountability tells us. Given the system of carrots and sticks under which they operate, is it realistic to expect prosecutors to be consistently evenhanded, thorough, and scrupulous ministers of justice?

Once a prosecutor seeks an indictment or files charges against a defendant, she has to some degree publicly committed to the position that the defendant is guilty of those charges. This decision is not irreversible – the prosecutor may later decide to dismiss the charges – but it does represent, in a very public way, what the prosecutor thinks about the defendant's culpability. If the prosecutor does not ultimately dismiss the charges and the defendant contests guilt, the case may go to trial. At that point, the prosecutor succeeds only by successfully persuading the factfinder that the charges brought against the defendant are justified. The only feedback the prosecutor receives about the correctness of that decision is the verdict itself; the prosecutor generally receives no independent verification that she was right in believing that the defendant was guilty.[87] A not-guilty verdict is not an affirmative finding of innocence but of a failure of proof.

This sort of accountability is not the kind that is likely to reduce commitment to a decision; instead, it should produce a motivation to secure a particular outcome: a successful prosecution. Prosecutors are not merely accountable for correctly identifying the truly guilty and rejecting the truly innocent; they are expected to build a strong enough case against the accused to convict. Correctly rejecting innocent suspects is part of that process, but it is not the ultimate goal. Indeed, a criminal investigation that ended there would likely be considered a failure. Prosecutors are therefore highly motivated not just to produce an accurate outcome but also to produce a particular kind of accurate outcome: conviction of the guilty. They achieve this end by building a persuasive case. Accountability for the ability to persuade another that a decision is the right one is precisely the sort that research suggests induces defensive bolstering and undermines objectivity.[88]

To attenuate bias, accountability must extend to the process by which someone made a decision. Justifying the process by which the prosecutor came to charge someone requires explaining roads not taken in reaching that

87. Feedback about the accuracy of prosecutors' decisions does occur occasionally, such as when post-conviction DNA testing establishes whether the defendant was in fact the perpetrator. Although many prosecutors magnanimously admit mistakes when DNA excludes the defendant, it is not uncommon for prosecutors to hold fast to a belief in guilt. *See* Medwed, *supra* note 7, at 129.

88. *See* Cloven & Roloff, *supra* note 84; Zajonc, *supra* note 84.

conclusion. To justify the decision to pursue one suspect or particular charge over another, for instance, the prosecutor must think about why someone might have made different choices and is therefore forced to consider alternative hypotheses.

Accountability for this kind of process is not inherent in criminal prosecutions. The prosecutor enjoys virtually unreviewable discretion for many decisions.[89] In the investigatory process specifically, a prosecutor may be subject to scrutiny indirectly when the defense attorney cross-examines investigators who worked on the case. But this kind of scrutiny is not inevitable, and the prospect may seem too remote to matter. To challenge the investigatory decision-making process on cross-examination, the defense attorney must be aware not only of the facts uncovered by the investigation but also of the opportunities to uncover other facts that investigators failed to pursue. Whether this happens depends on the skill and resources of the defense attorney. In any event, the context is adversarial and still outcome driven: the defense attorney may be challenging the investigatory process, but the point is to secure a particular outcome. Thus, the adversary process does not provide an opportunity to hold prosecutors accountable for the investigatory process in a way that potentially minimizes bias.

In sum, accountability can promote more careful and objective decision making but only under the right circumstances. The wrong kind of accountability can amplify it. Justifying the decision to prosecute requires summoning all the reasons why that person is guilty of a crime. This is the sort of accountability that prosecutors face. In the following Section, I present the results of two experiments demonstrating how such a system of accountability can skew people's perceptions of a case.

IV. EMPIRICAL EVIDENCE OF THE EFFECTS OF ACCOUNTABILITY ON LEGAL DECISION MAKING

Psychological research suggests that when people are held accountable for success in persuading others of the correctness of their position, they approach the task of information gathering as case building. Thus, compared to those who expect to be held accountable under different criteria or not at all, they will be more likely to minimize evidence inconsistent with their favored hypothesis and to construe ambiguous information in a way that supports it.

Two studies tested this hypothesis. Both studies used the same basic materials and measures, except as otherwise noted. Participants first read a mock police file and then indicated what they thought about the evidence and how the investigation should progress. The initial investigation pointed to only one plausible suspect; as the case progressed, however, investigators

89. *See* United States v. Armstrong, 517 U.S. 456, 464 (1996). *See Prosecution and Race*, *supra* note 17, at 50-53 (discussing broad nature of prosecutorial discretion).

uncovered additional information that called into question the initial suspect's guilt. If accountability to persuade induces a case-building mentality, participants who reviewed the file with that objective in mind should favor evidence and draw inferences that support their initial hypothesis. In other words, those participants should tend to view the evidence as more consistent with the initial suspect's guilt than would participants not held accountable in that way.

A. Procedures and Materials

Participants were recruited for a study about decision making in criminal investigations and asked to review a mock police file documenting a homicide investigation.[90] The case file was designed to be as realistic and detailed as possible so that participants could review the same sorts of information collected in real investigations.[91] It included a diverse array of materials, such as photographic lineups of suspects for identification, ballistic reports, interview reports from twenty-two witnesses, and an affidavit for a search warrant.

Early in the investigation, a circumstantial case emerged against one suspect, Bill Briggs.[92] Briggs had a minor criminal record, had been fired by the victim several months earlier, had no alibi for the night in question, and was hesitantly identified by a clerk as having bought cigarettes three blocks from the victim's home just fifteen minutes before the shooting was believed to have occurred.[93] No other suspects looked viable given that others with a plausible motive (such as an ex-girlfriend) had verifiable alibis for the time police believed the shooting took place.[94] Thus, Briggs implicitly became the prime suspect based on the evidence presented in the police reports.

As the investigation progressed, participants learned of more evidence incriminating the prime suspect. For instance, police discovered an unregistered gun of the same caliber that shot the victim in his apartment, and the store clerk identified him a second time from an in-person lineup as the man who bought the cigarettes.[95] However, new evidence also raised questions

90. Barbara O'Brien, Confirmation Bias in Criminal Investigations: An Examination of the Factors that Aggravate and Counteract *Bias* (2007) (unpublished Ph.D. dissertation, University of Michigan) (on file with author) [hereinafter Confirmation Bias]. These data were collected under the supervision and with the approval of the University of Michigan Institutional Review Board.

91. To minimize the chances that the case would evoke in their minds the conventions of crime dramas, participants were told that the file was from a real case, with only identifying information changed.

92. Confirmation Bias, *supra* note 90.

93. *Id.*

94. *Id.*

95. *Id.*

about the case against the prime suspect.[96] Police learned that the shooting probably occurred an hour later than originally thought, putting holes in the alibis of some of the other players and making less relevant the fact that the clerk identified him as the man who bought cigarettes near the scene of the crime.[97] A second search of the crime scene uncovered an ounce of cocaine, worth about $1,100, in the victim's bedroom.[98] In addition, police learned that the victim's nephew had a gambling problem and stood to inherit half of the victim's considerable fortune.[99] Finally, a man who did not match the suspect's description tried to pawn items similar to ones missing from the victim's home.[100]

B. Measures

In deciding how to proceed in a case, prosecutors essentially do three things: 1) seek new information, 2) interpret that information, and 3) construct coherent narratives to integrate the information. The study was designed to capture the effect of bias on people's performance of those tasks. Some measures were designed to replicate the tasks directly, such as asking participants what new evidence they thought was important and how they interpreted ambiguous information. Other measures gauged more incidental processes, such as testing how participants remembered the case's details, which reveals something about the narratives they construct to explain the case.

One such incidental process involves subtle adjustments people make in their beliefs about related matters in order to create a more coherent story about the case. Biased participants should adjust their opinions about matters relevant to the case against that suspect accordingly. Before reading the file, participants indicated their opinions about fourteen evidentiary propositions that would be relevant to how they would interpret the case they were about to read. Some of the items were consistent with a theory that prime suspect Briggs was guilty,[101] and others were inconsistent.[102] Participants indicated their agreement on a five-point scale (1 = strongly agree to 5 = strongly disagree) before learning about the case and revisited the propositions later, after having reviewed the file. This showed whether they changed their opinions

96. *Id.*
97. *Id.*
98. *Id.*
99. *Id.*
100. *Id.*
101. For example, "If a witness picks someone out of a line-up within a few days of witnessing an event, that's pretty good evidence that the person they picked was the same person they saw." *Id.*
102. For example, "Even if someone was pretty mad about getting fired, they'd probably cool off after about a month so long as they'd found another job." *Id.*

about these general propositions to make them more consistent with the theory of the case that they ultimately developed.[103]

Participants' memories of details about the case also reveal something about the narratives they construct. Someone inclined to confirm suspicions against the initial suspect should remember more guilt-consistent details and fewer innocence-consistent ones. To test their memory for guilt-consistent and inconsistent facts, participants completed a thirty-six-item, true-false test about the case to gauge whether they remembered facts consistent with their theory better than those that contradicted it.[104]

Someone searching for evidence in a biased manner should also seek new information consistent with the favored suspect's guilt rather than evidence that supports another theory of the case. To examine the effects of bias on information search, participants were presented with a list of twenty-five things the police might do next. Eight of the suggested lines of investigation focused on the prime suspect; the rest focused on other possible suspects or on more general matters. Participants circled the three lines of investigation that they believed would be most fruitful. In addition, they read descriptions of eight additional police reports. Three reports dealt with the prime suspect, two with another plausible suspect (the victim's nephew), and three with other more general lines of investigation. Participants selected the four reports they would most like to read.

Finally, prosecutors must integrate a large amount of information, some of which may be ambiguous or inconsistent with initial hypotheses. Participants were therefore asked to explain what they thought of certain pieces of evidence that were either ambiguous or raised questions about the initial suspect's guilt.[105]

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103. *See* Keith J. Holyoak & Dan Simon, *Bidirectional Reasoning in Decision Making by Constraint Satisfaction*, 128 J. EXPERIMENTAL PSYCHOL.: GEN. 3 (1999); Dan Simon, Lien B. Pham, Quang A. Le & Keith J. Holyoak, *The Emergence of Coherence over the Course of Decision Making*, 27 J. EXPERIMENTAL PSYCHOL.: LEARNING, MEMORY, & COGNITION 1250 (2001).

104. *See* Nancy Pennington & Reid Hastie, *Evidence Evaluation in Complex Decision Making*, 51 J. PERSONALITY & SOC. PSYCH. 242 (1986). For instance, in this study, items consistent with the prime suspect's guilt included "Bill Briggs owned an unregistered gun of the same caliber as the one used to shoot Marks" (true) and "Bill Briggs' fingerprints were found on the outside of a window in Marks' home" (false). Items inconsistent with Briggs' guilt included "Briggs' landscaping coworker told a similar story to the one Briggs told about getting fired" (true) and "Briggs offered to take a lie-detector test to prove his innocence" (false). Finally, some items were not objectively true or false but were open to interpretation depending on one's view of Briggs' guilt (for example: "Briggs was not especially cooperative with the police when they tried to talk to him about the crime"). Confirmation Bias, *supra* note 90.

105. Specifically, participants discussed the implications of the following: 1) the time line changed, and thus the man who bought the cigarettes did so an hour and fifteen minutes (rather than just fifteen minutes) before the shooting; 2) the clerk described the man who bought the cigarettes as having a goatee, but Briggs never

1. Study 1

a. Methods and Participants

Fifty-seven women and sixty-six men[106] participated for partial fulfillment of a course requirement. Participants were randomly assigned to one of four conditions: three in which different forms of accountability were imposed and one control condition in which participants were not held accountable in any way. To test the effects of three different types of accountability (process, outcome, and persuasion), participants were told to approach the investigation with specific goals. To focus participants on the goal of being persuasive, the experimenter instructed them as follows:

> This study has two parts; you are participating in part 1. Your job is to figure out what happened and to formulate a brief argument (about 5 minutes) that would persuade a jury of your position. To do this, as you review the evidence, think about the argument you will present to me in a tape-recorded interview. This tape will later be played to the participants in the second part of the study and rated for how persuasive it is.[107]

To impart a sense of accountability for using the right procedures (the "process" condition), the experimenter instructed participants as follows:

> As you know, the case materials you are about to read are from a real case. At the time of the investigation, the police department was especially concerned about the accuracy of its investigations; that is, were its detectives using the investigatory techniques best suited for finding the truth? The department therefore brought in a consultant to advise them about the correct procedures to maximize the detectives' chances to get at the truth and to review the detectives' work. This consultant is the best in his field and has advised some of the biggest departments in the country, including the FBI. We are interested in how well your investigatory decisions match the procedures he advocates. We're not so much concerned about the outcomes of your strategies but in the information you considered in formulating those strategies in reaching your conclusion.

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wore a goatee; 3) police found an ounce of cocaine in the victim's bedroom; and 4) the victim's nephew had a gambling problem and stood to inherit a substantial amount of money. *Id.* Someone inclined to confirm a hypothesis will tend to minimize inconsistent evidence (such as the clerk's memory of a goatee) and interpret ambiguous information (such as the drugs found in the victim's house) in a way that makes it more consistent with the hypothesis.

106. Mean age = 18.9 years.

107. Confirmation Bias, *supra* note 90.

> Therefore, at the end of the experiment, we will briefly interview each of you about your responses and judgments.[108]

To focus participants' attention on achieving the best outcome (the "outcome" condition), the experimenter read these instructions:

> We are interested in whether you figure out *who* did this crime and *how* exactly it happened. As you know, the case materials you are about to read are from a real case. This case has already been to trial and considered by a judge and jury. To measure how accurate you are, we will compare your judgments about what happened to the conclusions reached by the judge and jury. To do this, we will briefly interview each of you at the end of the experiment and conduct further analysis on your tape-recorded responses to see whether you succeeded in figuring out what happened.[109]

In all conditions except control, the experimenter placed a tape recorder in plain view while the instructions were administered. Remaining participants (those in the control condition) were simply instructed to read the file and answer the questions, with no mention of an interview or any particular objectives.[110] Halfway through the file, all participants were asked to state who they thought committed the crime and why they thought so.

b. Results

Previous research on the psychological effects of accountability indicates that people who expect to persuade others of the correctness of their position will be more prone to defensive bolstering at the expense of an even-handed review of the evidence. The results of this study are consistent with that finding. Across several measures, participants who expected to be judged by their ability to persuade others of the correctness of their opinions

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108. *Id.*

109. *Id.*

110. At the end of the study, the experimenter asked participants in the experimental conditions about their expectations for the interview. To probe for suspicion about the interviews, participants were asked the following question: "While making your judgment, did you expect to be interviewed after the experiment about how and why you gave the responses that you did?" This may have been an imprecise measure of suspicion and put doubt in the minds of participants who would not have otherwise questioned that the interview would take place, as almost a third (32.7%) indicated that they did not expect to be interviewed. Whether those participants were included in the sample made no difference in the pattern of results or for which measure's differences among conditions reached statistical significance. Nor did participants' suspicion vary by condition, $\chi 2(2, N = 101) = .88, p > .10$. Thus, results are reported for the entire sample.

displayed a tendency to confirm the guilt of the initial suspect.[111] Compared to those in the control condition, participants who expected to persuade others of their opinion about the case interpreted ambiguous or inconsistent evidence in a way that was more consistent with the initial suspect's guilt. They also suggested that police pursue more lines of investigation that focused on him and shifted their opinions about matters relevant to the case to reconcile them with a theory of his guilt. Thus, they tailored their review of the evidence to the standard by which they would later be judged. When they would be evaluated by the very same standard by which prosecutors are judged – their ability to make a persuasive case – they viewed the evidence in a way that more strongly supported their initial hypothesis that the early suspect was guilty.

However, participants who were told to focus on either achieving the right outcome or using the right procedures did not vary from control participants on any measure. This result is not consistent with previous research showing that holding people accountable for process diminishes bias while holding them accountable for the outcome amplifies it. It is possible that neither process nor outcome accountability affected bias because the manipulation failed to make participants feel that they would actually be held accountable for their work. Outcome and process participants were told that they would be interviewed about their decisions, but nothing was really at stake besides the presumably nonthreatening task of talking with the experimenter, who was in all cases an undergraduate research assistant. In contrast, participants who believed that they would have to persuade others of their position may have felt more intimidated because they believed others would judge them for it. In any event, the null findings should not be interpreted to demonstrate that these forms of accountability do not matter, given that they could be due to a failure of the manipulation.

2. Study 2

a. Methods and Participants

Fifty-three women and forty-three men[112] participated for $15.[113] As with the first study, this study was designed to test the effects of three different types of accountability (process, outcome, and persuasion), and participants therefore received substantially similar instructions to those used in

111. See Table 1 and notes in the Appendix for descriptive statistics as well as the results of the analysis of variance (ANOVA) conducted to test the effects of different types of incentives on participants' interpretation of the evidence.

112. Confirmation Bias, *supra* note 90. Mean age = 22.6 years.

113. *Id.* Participants were paid in Study 2 because the pool of subjects available for course credit had been exhausted. Payment was not contingent on performance on any of the study's tasks and therefore not expected to affect the results.

Study 1, with a few changes.[114] In particular, to address the fact that neither the outcome nor the process accountability conditions produced statistically significant effects in the first study, participants were given incentives to raise the stakes and thus heighten their sense of accountability. Experimenters told participants that the person who came the closest to fulfilling the objectives given in the instructions would win a $50 gift certificate to Borders Books.[115]

To keep participants focused on the specific objectives of the task, the experimenter repeated instructions halfway through the file and asked them what they would like to ask in light of those objectives.[116] In addition to the three experimental conditions, this study also included two control conditions. Participants in both control conditions were instructed simply to read the file and answer the questions, with no mention of an interview or any particular objectives. However, one control group read through the file without interruption, while the other indicated halfway through the file what questions they would like to ask.[117]

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114. The instructions in the outcome-accountable condition were also changed to make the contest seem more credible. It was possible that outcome participants believed that the most obvious suspect could not possibly be the true culprit; otherwise, everyone would get the right answer, and there would be no way to award the prize. To counter this, their task was broadened beyond merely naming a suspect to determining exactly what happened. Specifically, the experimenters gave participants the following additional information:

> Later in the investigation, police found a piece of biological evidence from which they could make a definitive DNA match to a suspect. When confronted with this new evidence, the suspect confessed and told police exactly how the crime occurred. To measure how accurate you are in solving this case, we will compare your judgments about what happened to the suspect's confession.

Id.

115. *Id.*

116. Unlike the first study, however, no one was asked to name a suspect. *Id.*

117. The experimenters also asked more open-ended inquiries to gauge suspicion than they did in the first study. Participants were asked, "What are your expectations for the interview?" and were given several lines in which to write. When participants were debriefed, they learned that there was no contest judging how well they followed the task instructions, but they were given a chance to win the gift certificate by guessing how many words the case file contained. Out of fifty-nine participants in the experimental conditions, almost all (n = 54, 91.5%) expected to be interviewed. The other five either said that they did not want to be interviewed or simply did not respond to the question. The difference in expectation varied by condition, $\chi^2(2, N = 59) = 10.65$, $p < .01$, as all five participants who did not expect to be interviewed were in the outcome condition. Those five were excluded from the analyses that follow.

b. Results

Study 2's results show the same pattern as Study 1, although on fewer measures.[118] Compared to those in the control condition, people who expected to be judged by their ability to persuade others of their opinions showed a tendency to confirm the initial suspect's guilt by suggesting more lines of investigation focused on him rather than other potential leads. The same pattern emerged for their memories for hypothesis-consistent information, in their convergence of opinions toward a theory of his guilt, and in their requests for additional reports.

Also, as in Study 1, neither outcome nor process accountability affected how participants processed the evidence. It is possible that the instructions again failed to induce a sense of accountability in these conditions. Although offering a prize for achieving the objectives set forth in the instructions was intended to make participants feel more accountable for their decision making, it could be that the prize provided motivation rather than accountability. Motivation to get the right answer generally does little to improve hypothesis testing.[119] If the prize served as general motivation to do a good job, rather than to make participants feel that they would have to justify themselves to others, it would not have affected how they searched for and interpreted evidence. In the outcome and process conditions, participants expected to be evaluated by the experimenter for a prize. In the persuade condition, in contrast, participants expected other participants rather than just the experimenter to judge their work. The nature of the expected audience may have induced a sense of accountability in persuasion participants but not in participants in the other conditions.

Moreover, using lay participants rather than experienced prosecutors may also have rendered process accountability ineffective for countering bias in these studies. People tend to engage in more effortful and self-critical thought when they know from the start that they will be accountable for the process by which they made decisions.[120] Bias occurs both when one overlooks relevant information and when one looks to irrelevant information.[121] Greater effort and self-criticism improve performance only if one has the skills to discriminate the useful from the less useful cues. In these studies, process-accountable participants thought they would be judged based on the process by which they made their decisions; in particular, they were told that asking the right questions mattered more than getting the right answer and

118. See Table 2 in the Appendix for descriptive and inferential statistics.

119. *See* Erica Dawson, Thomas Gilovich & Dennis T. Regan, *Motivated Reasoning and Performance on the Wason Selection Task*, 28 PERSONALITY & SOC. PSYCHOL. BULL. 1379 (2002).

120. *See Effects of Accountability*, *supra* note 13. *See generally Impact of Accountability on Cognitive Bias*, *supra* note 12.

121. Norbert L. Kerr, Robert J. MacCoun & Geoffrey P. Kramer, *Bias in Judgment: Comparing Individuals and Groups*, 103 PSYCHOL. REV. 687 (1996).

that their investigatory procedures would be compared to those advocated by an expert. But, without training in what those best procedures are, they may have simply worked harder without working smarter, paying more attention generally without knowing where to focus. Caution is therefore warranted in interpreting the null results as evidence that these forms of accountability do not affect bias. Imposing accountability for the decision-making process may still be a viable remedy for bias in criminal investigations, but it will most likely be more effective if the decision makers are trained in the best investigatory techniques.

C. *Discussion and Limitations of These Studies: Do These Findings Generalize to Prosecutors?*

Expecting to be judged for how well one persuades others of a suspect's guilt aggravated the tendency to confirm rather than to falsify an early hypothesis. This is precisely the expectation under which the prosecutor labors; success is defined by the prosecutor's ability to persuade others – whether a jury, judge, or defendant considering a plea – that the charges have merit. Moreover, participants displayed this tendency even in the absence of any meaningful commitment to their initial hypothesis. A prosecutor who has charged a defendant has committed in a much more public and serious way to a theory of the defendant's guilt and thus has more to defend and bolster.

One obvious limitation of these studies is the use of lay participants rather than professional prosecutors.[122] Nevertheless, they tell us something useful. The goal of this research is to identify the ways in which the system's current scheme of incentives influences how prosecutors approach their cases. A first step toward this goal is to understand basic judgment and decision-making processes relevant to these tasks. Using lay participants rather than prosecutors as a starting point for this research requires the provisional assumption that those processes are basically the same for the two populations.

One might assume that because prosecutors are professionals with training and experience, they would be less susceptible to these biases. Yet research on decision making of experts in other domains suggests otherwise.

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122. The participants' youth might also raise concerns about the external validity of the studies. Psychologists frequently study undergraduates for convenience even though undergraduates differ from the general population in many obvious respects, such as age, education level, and socio-economic status. Nevertheless, for many of the processes of interest to psychologists, undergraduates resemble other populations well enough to serve as a proxy, even in the domain of expert decision making. *See, e.g.*, SCOTT PLOUS, THE PSYCHOLOGY OF JUDGMENT AND DECISION MAKING 258 (1993) (reporting studies finding decision-making biases in college students and experts comparable). For more on generalizing research using college students to other populations, see David O. Sears, *College Sophomores in the Laboratory: Influences of a Narrow Data Base on Psychology's View of Human Nature*, 51 J. PERSONALITY & SOC. PSYCHOL. 515 (1986).

Experts are not immune from the biases and heuristics that characterize lay reasoning. Real estate agents, for instance, use anchoring and adjustment heuristics in valuing properties,[123] as do judges sentencing criminal defendants.[124] And much research has documented that professionals of all sorts are susceptible to confirmation bias in particular. For instance, one study found that managers in banks and industry sought additional evidence primarily to support their financial decisions, even when the decision was only preliminary.[125] When physicians diagnose a patient, they generate a small set of hypotheses and often fail to correct for new information. They interpret new data in a biased way, fail to seek disconfirmatory data, and interpret non-diagnostic data as confirmatory.[126] Counselors diagnosing a new patient show similar tendencies,[127] as do research psychologists testing a hypothesis derived from a favored theory.[128]

Thus, expertise does not eliminate common cognitive biases, and there is no reason to believe that prosecutors would be less susceptible than bankers, doctors, counselors, or researchers. Rather, a prosecutor's approach to a case at its inception probably best resembles that of a doctor: the prosecutor's act of charging a suspect operates like a doctor's preliminary diagnosis, which becomes the focal point for how the doctor searches for and interprets new information.[129] Unlike doctors, however, prosecutors must then set about to persuade others of the correctness of their "diagnosis." In light of this added pressure, it would be surprising if prosecutors were not at least as vulnerable to cognitive biases as other professionals, but further research is needed to establish whether this is so.

It is also possible that experienced prosecutors process information about a case in a manner that is fundamentally different from that of lay par-

123. *See* Gregory B. Northcraft & Margaret A. Neale, *Experts, Amateurs, and Real Estate: An Anchoring-And-Adjustment Perspective on Property Pricing Decisions*, 39 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 84 (1987).

124. *See* Birte Englich, Thomas Mussweiler & Fritzl Strack, *Playing Dice with Criminal Sentences: The Influence of Irrelevant Anchors on Experts' Judicial Decision Making*, 32 PERSONALITY & SOC. PSYCHOL. BULL. 188 (2006).

125. Stefan Schulz-Hardt, Dieter Frey, Carsetn Lüthgens & Serge Moscovici, *Biased Information Search in Group Decision Making*, 78 J. PERSONALITY & SOC. PSYCHOL. 655, 666 (2000).

126. *See* Vicki R. LeBlanc, L.R. Brooks & G.R. Norman, *Believing Is Seeing: The Influence of Diagnostic Hypothesis on the Interpretation of Clinical Features*, 77 ACAD. MED. S67 (2002). A.S. ELSTEIN ET AL., MEDICAL PROBLEM SOLVING: AN ANALYSIS OF CLINICAL REASONING (1978).

127. *See* Beth E. Haverkamp, *Confirmatory Bias in Hypothesis Testing for Client-Identified and Counselor Self-Generated Hypotheses*, 40 J. COUNSELING PSYCHOL. 303 (1993).

128. *See* Anthony G. Greenwald, Anthony R. Pratkanis, Michael R. Leippe & Michael H. Baumgardner, *Under What Conditions Does Theory Obstruct Research Progress?*, 93 PSYCHOL. REV. 216 (1986).

129. *See* ELSTEIN ET AL., *supra* note 126.

ticipants. Research on expert decision making suggests that experts draw on experience to recognize patterns based on both the information they get and the order in which they get it.[130] The expert draws on a wide array of experiences to create a story, integrating several different patterns to account for the particular features of the situation.[131] By recognizing that a situation fits a certain pattern, the expert can assess it quickly and choose a course of action without actively considering alternatives.[132] For instance, an experienced fire fighter might quickly sense that an ostensibly routine house fire is particularly dangerous without being conscious of the specific cues giving rise to this intuition.[133] In a criminal case, a prosecutor might quickly recognize a killing as drug related or stemming from a domestic dispute without actively considering every alternative.

But even if their decision-making processes differ from those of lay people, professional prosecutors are not necessarily less prone to bias. The process by which experts make decisions under pattern-matching models – constructing a story to explain and predict events, then formulating a course of action without consideration of alternatives – seems like fertile ground for bias in the context of a criminal prosecution. The experiences from which prosecutors draw to create stories would be richer and probably more realistic than those used by lay people, but they would not keep the prosecutor from favoring evidence that confirms a particular theory. Moreover, if experts act without actively considering alternatives – as these models suggest – their bias toward a favored hypothesis should be even more entrenched than that of a layperson, who would be more likely to consider alternative explanations spontaneously.

Whether prosecutors' judgment and decision-making processes resemble those of lay people is an empirical question that ultimately demands an empirical answer. But research on professional decision making in other domains suggests that assuming that they too are susceptible to common cognitive biases is a reasonable place to start. Identifying factors common in criminal investigations that may exacerbate or minimize bias in lay participants will inform predictions about how prosecutors process information under the same circumstances.

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130. Bruce M. Perrin, Barbara J. Barnett, Larry Walrath & Jeffrey D. Grossman, *Information Order and Outcome Framing: An Assessment of Judgment Bias in a Naturalistic Decision-Making Context*, 43 HUM. FACTORS 227 (2001).

131. Karol G. Ross, James W. Lussier & Gary Klein, *From the Recognition Primed Decision Model to Training*, *in* THE ROUTINES OF DECISION MAKING 327, 328 (Tilmann Betsch & Susanne Haberstroh eds., 2005).

132. Rebecca Pliske & Gary Klein, *The Naturalistic Decision-Making Perspective*, *in* EMERGING PERSPECTIVES ON JUDGMENT AND DECISION RESEARCH 559, 562 (Sandra L. Schneider & James Shanteau eds., 2003).

133. *Id.* at 560.

V. IMPLICATIONS FOR REFORM

It is hard to take issue with accountability as a solution for overzealous prosecutors. In the face of many social ills, imposing greater accountability looks like an eminently sensible solution. Whether the problem is failing schools, inefficient government agencies, or underperforming executives, making the responsible parties account for their shortcomings seems like a reasonable and effective way to improve performance.[134] And certainly it often is. But systems of accountability come in different forms and arise in different contexts. The precise ways in which actors are held accountable for their performance affects how they approach their tasks, often in unintended and undesirable ways.

Prosecutors already operate under a powerful system of accountability: they are judged in large part by their ability to persuade others of the correctness of their charging decision. Often – in cases with overwhelming evidence – any bias this engenders to confirm initial suspicions will not matter. But in close cases, these tendencies are dangerous. Although innocent defendants certainly do sometimes plead guilty,[135] the close cases may be more likely to go to trial, where the state bears the burden of proof. There is no independent determination of the accuracy of the charging decision: the verdict alone resolves the question of what happened and who did it. Prosecutors succeed by procuring a guilty verdict, and that requires building a persuasive case. This form of accountability is exactly the sort that undermines objectivity.

Yet it is in close cases where the prosecutor's ability to step outside the role of advocate and see the case objectively matters most. The reliability of the criminal justice system depends in large part on the accuracy of decisions made early in a case about what information to pursue and what inferences to

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134. *See, e.g.*, Michael R. Bloomberg, Op.-Ed., *I'm Not Running for President, but . . .*, N.Y. TIMES, Feb. 28, 2008, at A25 (arguing that "we can't fix our schools without holding teachers, principals and parents accountable for results"); Harry Jaffe, *Can She Do It?*, WASHINGTONIAN, Sept. 2007, at 50 (discussing Washington D.C.'s school chancellor Michelle Rhee's plan to fix the ailing schools in part by imposing a stricter system of accountability for teachers and administrators); U.N. News Svc. Greater Accountability Needed to Boost Women's Rights, U.N. Agency Says (Sept. 18, 2008), http://www.un.org/apps/news/story/asp?NewsID=28100&Cr=Unfem&Cr1 ("'Without accountability, Governments will not allocate resources fairly, which will hit the poor hardest,' Secretary-General Ban Ki-moon said today . . . ."); 154 CONG. REC. S9171-02 (2008) (statement of Sen. Harry Reid (D-Nev.) arguing for greater accountability by politicians and executives in the financial sector for their roles in the financial crisis).

135. Gross and colleagues found that, of 340 exonerations between 1989 and 2003, twenty of the exonerees had pled guilty to avoid life imprisonment or the death penalty. *Exonerations in the United States*, *supra* note 37, at 536. Moreover, revelations of large-scale corruption in Tulia, Texas, and among the Los Angeles Police Department's Rampart division brought to light scores of instances in which defendants falsely pled guilty to avoid long prison sentences. *See id.* at 533-34.

draw from that information. A detective seeking to confirm suspicions formed early in a case may overlook leads pointing in other directions and become overly committed to pursuing the wrong suspect. Ideally, prosecutors check this tendency by offering a fresh and more objective perspective of the evidence. A prosecutor disposed toward confirming a suspect's guilt may be less able to do so. Moreover, in day-to-day matters, police and prosecutors work together closely.[136] Thus, prosecutors do not start with a blank slate. They inherit the effects of any bias on the part of the investigating officers. Prosecutors – whether working closely with the police or merely receiving their reports – rely on police investigations to guide them in their decision to proceed. Given this relationship, the prosecutor will be presented with the evidence the police deem relevant and be privy to their conclusions. As Professor Jonakait notes, "Not surprisingly, the picture presented to the prosecutor almost always shows a guilty defendant."[137] Unless the prosecutor actively seeks evidence in support of alternative hypotheses, the conclusions of police investigators will guide the course of the investigation and ultimately how the case is prosecuted.[138]

Thus, addressing intentional misconduct only gets us so far in understanding overzealous prosecution. The substantial power prosecutors enjoy means that even good-faith decisions can undermine the integrity of the system. Prosecutors are in a unique position to ensure accurate and just results.[139] Treating them as rational, self-interested actors who act based on their calculations of expected costs and benefits overlooks some of the subtler ways in which they unwittingly fail to function as safeguards.[140]

On the other hand, characterizing prosecutors' cognitive tendencies as "biases" assumes that they are engaging in suboptimal or irrational reasoning strategies. Whether a particular strategy makes sense depends on the goal at hand. The studies presented in this Article show that expecting to be judged for how well one persuades others that a suspect is guilty could aggravate the tendency to confirm initial suspicions. But research on persuasion has also shown that people often find an argument most persuasive when it consists primarily of evidence supporting the speaker's hypothesis, as opposed to in-

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136. *See* Bruce A. Green & Fred C. Zacharias, *Prosecutorial Neutrality*, 2004 WIS. L. REV. 837 (2004), 863, 864 & n.95; William T. Pizzi, *The American "Adversary System"?*, 100 W. VA. L. REV. 847, 849 (1998).

137. Randolph N. Jonakait, *The Ethical Prosecutor's Misconduct*, 23 CRIM. L. BULL. 550, 553 (1987).

138. *See* Medwed, *supra* note 7, at 140-43.

139. *See Remedies for a Broken System*, *supra* note 7, at 407 ("Practically speaking, the prosecutor is the first line of defense against many of the common factors that lead to wrongful convictions."); *Duty to Avoid Wrongful Convictions*, *supra* note 19, at 17 (asserting that "prosecutorial acts and omissions, cumulatively, can create a reasonable likelihood of false conviction ").

140. *See Improving Prosecutorial Decision Making*, *supra* note 8.

cluding evidence both for and against it.[141] The tendency to seek information that confirms rather than falsifies a suspect's guilt may deviate from scientific norms about hypothesis testing, but it is hardly irrational if the overriding goal is persuasion. Crafting a one-sided argument is often the prosecutor's most effective strategy. That process may also result in the prosecutor seeing the evidence in a one-sided manner, but that is hardly irrational if the majority of the people they charge are in fact guilty.

Indeed, that desire to win is what proponents of the adversary system argue makes it the most effective system for achieving accurate results. Charged with presenting the best case possible, adversaries are uniquely motivated to uncover facts.[142] It is in each party's interest to challenge the facts as presented by the other side and to bring to light all the evidence that favors its own position.[143] But the adversarial process cannot serve the criminal justice system's objectives of fairness and accuracy completely; if it could, there would be no need to impose on prosecutors the additional role of ministers of justice.[144]

As these studies suggest, satisfying both roles may not come naturally to people. Exhorting prosecutors to "seek justice" is futile, even for the most virtuous prosecutor. Rather, as Professor Zacharias argues, prosecutors need clear rules with minimal ambiguity about which behaviors are legitimate and which are not.[145] This requires determining which values the adversarial process can protect and which ones require something more from the prosecutor than the desire to win. In the following Section, I present three situations in which a conflict between prosecutors' dual roles can arise: when the prosecutor learns of information helpful to the defense, when the use of cooperating witness testimony can bolster the prosecutor's case, and when the prosecutor helps guide a police investigation. Many scholars have discussed the potential for prosecutorial misconduct in these situations and proposed reforms to address it. This Article does not seek to endorse or oppose any particular proposals but instead to offer insight into the validity of the empirical assumptions that necessarily underlie them.

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141. *See* Baron, *supra* note 14.

142. *See, e.g.*, Richard A. Posner, *An Economic Approach to the Law of Evidence*, 51 STAN. L. REV. 1477, 1492 (1999).

143. Critics question the efficacy of the adversarial system in bringing out the truth, asserting that an emphasis on winning elicits gamesmanship in which winning is a function of resources rather than facts. *See* Peter J. van Koppen & Steven D. Penrod, *Adversarial or Inquisitorial: Comparing Systems*, *in* ADVERSARIAL VERSUS INQUISITORIAL JUSTICE: PSYCHOLOGICAL PERSPECTIVES ON CRIMINAL JUSTICE SYSTEMS 15-17 (Peter J. van Koppen & Steven D. Penrod eds., 2003) (addressing some criticisms of the adversarial system).

144. *See Duty to Avoid Wrongful Convictions*, *supra* note 19, at 31 (noting the ways in which the adversarial system falls short in ensuring accuracy).

145. *Can Prosecutors Do Justice?*, *supra* note 3, at 107-09.

A. Discovery Obligations and Dilemmas

The most obvious example of conflicting roles arises when the prosecutor uncovers evidence that helps the defense. In *Brady v. Maryland*, the Supreme Court held that prosecutors must disclose exculpatory evidence to the defense if that evidence is "material."[146] Evidence is considered material "only if there is a reasonable probability that, had the evidence been disclosed to the defense, the result of the proceeding would have been different. A 'reasonable probability' is a probability sufficient to undermine confidence in the outcome."[147]

Thus, when faced with the discovery of potentially exculpatory evidence, the prosecutor must determine whether the *Brady* rule applies. This task requires the prosecutor to make a judgment call that warrants some objectivity. This expectation is unrealistic.[148] Imagine the decision-making process at work. On one hand, the prosecutor knows that choosing not to disclose means risking sanctions or eventual reversal if the defense finds out later. On the other hand, compelling counterarguments readily spring to mind – maybe the evidence is not clearly exculpatory but cuts both ways.[149] And so what if it *is* exculpatory? It is certainly not material. After all, if it were material – if there were a reasonable probability that the evidence would change the outcome of the trial – the prosecutor would not be proceeding in the first place.[150] The prosecutor then considers the duty not to seek just convictions but justice. Of course, justice requires convicting the guilty, and this exculpatory evidence (if you can even call it that) might mislead the jury into acquitting this guilty defendant.[151]

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146. 373 U.S. 83, 87 (1963) ("[T]he suppression by the prosecution of evidence favorable to an accused upon request violates due process where the evidence is material either to guilt or to punishment, irrespective of the good faith or bad faith of the prosecution.").

147. United States v. Bagley, 473 U.S. 667, 682 (1985).

148. *See* Hoeffel, *supra* note 5, 1141-49 (arguing that, in a system that rewards winning, prosecutors cannot reasonably be expected to make the call on whether to disclose evidence favorable to their adversaries); Alafair S. Burke, *Revisiting Prosecutorial Disclosure*, 84 IND. L.J. 481, 481 (2009) [hereinafter *Revisiting Prosecutorial Disclosure*] ("The materiality standard amplifies cognitive biases that distort even an ethical prosecutor's application of *Brady*, leading to systematic under-disclosures of exculpatory evidence.").

149. See Medwed, *supra* note 7, for examples of prosecutors maintaining their belief in a defendant's guilt despite compelling evidence to the contrary. *See also* Findley & Scott, *supra* note 5.

150. Giannelli, *supra* note 5, at 601-04 (discussing six incentives prosecutors have to not disclose exculpatory evidence).

151. *See Revisiting Prosecutorial Disclosure*, *supra* note 148, at 483-84, 486 (noting that a "prosecutor seeking to balance her dual roles may conclude that she is 'doing justice' by suppressing exculpatory evidence that does not appear to meet the Court's definition of materiality. As a result . . . , even conscientious prosecutors

These arguments could seem very persuasive to someone who is already motivated to keep the evidence under wraps. And if prosecutors can convince themselves that the rule does not even apply, they need not be concerned with the remote possibility that the defense will discover the failure to disclose,[152] let alone the even more remote possibility that the defense would succeed in convincing the court that the undisclosed evidence was both exculpatory *and* material.[153] This is precisely the sort of situation where the adversarial process fails to serve accuracy goals. The parties' desire to win should lead to a more comprehensive picture for the factfinder, but in this case it does the opposite. The desire to win motivates prosecutors to justify to themselves withholding the evidence from their adversaries and, thus, the factfinders.

One way to avoid putting prosecutors in this position is to level the investigatory playing field, thus rendering the *Brady* requirement largely unnecessary. Defendants with access to their own police force could discover the exculpatory evidence on their own and would not have to depend so heavily on prosecutors' compliance with disclosure requirements. If they could negotiate deals with witnesses in exchange for cooperation like the government can, they could extract useful information from otherwise reluctant witnesses. This solution would allow the adversarial process to work as envisioned because both parties would be not only motivated but also able to put forward the best possible evidence to support their position.

Providing the defense with equivalent investigatory resources is obviously unrealistic for many reasons, not the least of which is the considerable expense society would bear in providing such resources and the unpalatability of providing accused criminals with powers commensurate with those

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might fail to disclose even the narrow band of evidence to which defendants are entitled under *Brady*."); Daniel Givelber, *Meaningless Acquittals, Meaningful Convictions: Do We Reliably Acquit the Innocent?*, 49 RUTGERS L. REV. 1317, 1375 (1997) (arguing that when prosecutors believe that a defendant is guilty, they may view evidence favorable to the defense "as a 'red herring' with which defense counsel may make mischief"); Jonakait, *supra* note 137, at 553-54 (arguing that "the prosecutor naturally tends to view weaknesses in his case not as possible indicators of innocence but merely as a possible failure of proof . . . .").

152. For an interesting discussion of the factors that keep exculpatory material from ever coming to light, see Stanley Z. Fisher, *"Just the Facts, Ma'am": Lying and the Omission of Exculpatory Evidence in Police Reports*, 28 NEW ENG. L. REV. 1 (1993).

153. Hoeffel, *supra* note 5, at 1145-46, 1152 (noting that the chances are remote that the defense will discover a failure to disclose and even more so that a court would deem the evidence material); *Revisiting Prosecutorial Disclosure*, *supra* note 148, at 490 (observing that "[e]ven if the defense manages both to discover the undisclosed evidence and to persuade a reviewing court that the evidence is material, the prosecutor can simply retry the defendant, placing the prosecutor in roughly the same position she would have found herself had she disclosed the evidence in the first place").

of the state.[154] But engaging in the exercise of thinking about what it would take to begin to level the investigatory playing field reveals just how much defendants depend on the government for information.[155]

Observations and arguments about the biasing effect of the prosecutor's role as advocate do not tell us precisely how the rules of discovery in criminal cases might be crafted to maximize the parties' ability to perform their adversarial functions. But they do call into question some of the empirical assumptions that justify discovery practices that rely on the prosecutor to exercise good judgment with little specific guidance.[156] Certainly, they bolster arguments that defendants' discovery rights should be broadened to resemble those entitled to civil litigants[157] and that prosecutors' discretion in disclosing information should be as limited as possible.[158]

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154. A traditional argument against broad criminal discovery is the potential for defendants to abuse that power to intimidate witnesses and suborn perjury. *See* William J. Brennan, Jr., *The Criminal Prosecution: Sporting Event or Quest for Truth? A Progress Report*, 68 WASH. U. L.Q. 1, 5-6 (1990). Providing defendants with not only the products of the government's investigation but also the means to conduct their own might appear especially dangerous to those holding this view. *Id.* at 5-7.

155. The National Center for State Courts studied indigent defense systems and concluded that the "greatest disparities occur in the areas of investigators and expert witnesses, with the prosecutors possessing more resources." ROGER A. HANSON ET AL., NAT'L CTR. FOR STATE COURTS, INDIGENT DEFENDERS: GET THE JOB DONE AND DONE WELL 100 (1992). Prosecutors not only have access to full-time investigators and laboratories but also enjoy other investigatory advantages. *See* Barry Nakell, *Criminal Discovery for the Defense and the Prosecution – The Developing Constitutional Considerations*, 50 N.C. L. REV. 437, 439-42 (1972). Police will typically begin to gather evidence and interview witnesses immediately after the crime occurs. *Id.* at 439-40. Defense counsel is not likely to get involved until much later, after the police have gathered evidence that implicates the defendant. *See id.* at 440. And, once the defense attorney does start to investigate, she may have a harder time than the prosecutor in convincing witnesses to cooperate. *Id.* For those witnesses that do resist cooperating with the state, the prosecutor may often use the grand jury's subpoena power to compel witnesses to testify under oath. *Id.* at 440-41.

156. *See, e.g.*, Kyles v. Whitley, 514 U.S. 419, 439 (1995) (opining that "a prosecutor anxious about tacking too close to the wind will disclose a favorable piece of evidence").

157. *See* Stephen J. Schulhofer, *A Wake-Up Call from the Plea-Bargaining Trenches*, 19 L. & SOC. INQUIRY 135, 137 (1994) (noting that even the most liberal jurisdictions afford defendants less information than the civil system typically offers litigants); Brady *and Jailhouse Informants*, *supra* note 30, at 641 (arguing that the "surest way to meet and exceed *Brady* disclosure obligations is to adopt an 'open file' discovery policy"). *See also* United States v. Bagley, 473 U.S. 667, 693-96 (1985) (Marshall, J., dissenting) (advocating a requirement of disclosure of all evidence "that might reasonably be considered favorable to the defense").

158. *See, e.g.*, Robert P. Mosteller, *Exculpatory Evidence, Ethics, and the Road to the Disbarment of Mike Nifong: The Critical Importance of Full Open-File Discovery*, 15 GEO. MASON L. REV. 257, 308, 310 (2008) (arguing that broad and unambi-

B. Cooperating Witnesses and the Risk of Perjury

Prosecutors often negotiate deals to secure the cooperation of a witness in the prosecution of another. The use of cooperating witnesses is controversial because of doubts about their reliability.[159] A witness who testifies against a criminal defendant in exchange for favorable treatment in his or her own case has a powerful motive to lie if doing so will improve chances of leniency.[160]

The decision of whether to offer cooperating witness testimony implicates the prosecutor's conflicting goals. The witness has every reason to lie to secure favorable treatment from the prosecution, and the prosecutor has a duty not to present perjured testimony. Yet the witness has information that helps the prosecution's case. Thus, the prosecutor must make a credibility determination – a task that requires objectivity. People tend to be much poorer judges of credibility than they think they are; this is so even for experts whose jobs require such determinations.[161] A prosecutor who would very

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guous discovery obligations limit prosecutors' opportunity to misjudge the scope of their obligations); Mary Prosser, *Reforming Criminal Discovery: Why Old Objections Must Yield to New Realities*, 2006 WIS. L. REV. 541, 584 (arguing that resource disparities justify liberal discovery entitlements for defendants even though duty of reciprocal disclosure is limited); Hoeffel, *supra* note 5, at 1136; Griffin, *supra* note 17, at 275-87. *See generally* Wm. Bradford Middlekauff, *What Practitioners Say About Broad Criminal Discovery Practice*, CRIM. JUST., Spring 1994, at 14, 15-16, 54-55.

Of course, many states already have broad discovery entitlements. *See, e.g.*, MICH. CT. R. 6.201(A), (B) (2007) (mandating broad discovery, including names and addresses of potential trial witnesses, police reports, and witnesses' and co-defendants' recorded or written statements and providing the defendant with an opportunity to inspect all physical evidence). The effectiveness of these provisions depends on the existence of a competent defense attorney to enforce them. Liberal discovery provisions are meaningless if defense attorneys lack sufficient resources or savvy to take advantage of them.

159. *See* Dianne L. Martin, *Lessons About Justice from the "Laboratory" of Wrongful Convictions: Tunnel Vision, the Construction of Guilt and Informer Evidence*, 70 UMKC L. REV. 847, 856-63 (2002); Emily Jane Dodds, Note, *I'll Make You a Deal: How Repeat Informants Are Corrupting the Criminal Justice System and What to Do About It*, 50 WM. & MARY L. REV. 1063, 1073-79 (2008) (discussing "[t]rouble with [j]ailhouse [i]nformants"); Bennett L. Gershman, *Witness Coaching by Prosecutors*, 23 CARDOZO L. REV. 829, 833-34, 849-50 (2002) (discussing effects of witness coaching and unreliability of cooperating witnesses).

160. *See* R. Michael Cassidy, *"Soft Words of Hope":* Giglio, *Accomplice Witnesses, and the Problem of Implied Inducements*, 98 NW. U. L. REV. 1129, 1176 (2004).

161. Christian A. Meissner & Saul M. Kassin, *"He's guilty!": Investigator Bias in Judgments of Truth and Deception*, 26 LAW & HUMANISTIC BEHAV. 469, 470 (2002) ("[P]sychological research has generally failed to support the claim that individuals can attain high levels of performance in making judgments of truth and deception. Over the years, numerous studies have demonstrated that individuals perform at no

much like to believe that a cooperating witness is truthful may have an especially hard time detecting lies and may even unintentionally induce perjured testimony against the defendant.[162]

Unreliable testimony from cooperating witnesses arguably presents less of a threat to the adversary system than do discovery violations. The prosecution must disclose the existence of an agreement with a cooperating government witness,[163] and the defendant can use the existence of an agreement between the witness and the government to challenge the witness's credibility on cross-examination. Ultimately, it is the factfinder's job to decide whether the witness is truthful, and it can consider the witness's motives in making that assessment. But there are reasons to doubt the efficacy of these safeguards.[164] Cooperating witnesses present a unique problem in that prosecu-

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better than chance level in detecting deception."). *See also* Giannelli, *supra* note 5, at 602-03 ("[P]rosecutors are not particularly good at assessing the credibility of their informants.").

162. A prosecutor's influence on the cooperating witness may be more powerful than the prosecutor intends or even realizes. As Professor Damaška argues,

> During the sessions devoted to 'coaching,' the future witness is likely to try to adapt himself to expectations mirrored in the interviewer's one-sided attitude. As a consequence, gaps in his memory may even unconsciously be filled out by what he thinks accords with the lawyer's expectations and are in tune with his thesis. Later, in court, these additions to memory images may appear to the witness himself as accurate reproductions of his original perceptions.

Mirjan Damaška, *Presentation of Evidence and Factfinding Precision*, 123 U. PA. L. REV. 1083, 1094 (1975). *See also Duty to Avoid Wrongful Convictions*, *supra* note 19, at 9 (noting that, although it is illegal to knowingly offer or elicit false testimony, the methods prosecutors and law enforcement use to prep witnesses are otherwise unregulated, despite the risk that some of these tactics might unwittingly elicit false testimony).

163. Giglio v. United States, 405 U.S. 150, 152-55 (1972) (holding that any promise or inducement to a government witness in a criminal case is exculpatory evidence subject to mandatory disclosure to the defense).

164. The use of bargained-for testimony is common in the criminal justice system. *See* George C. Harris, *Testimony for Sale: The Law and Ethics of Snitches and Experts*, 28 PEPP. L. REV. 1, 53-54 (2000); *see also* UNITED STATES SENTENCING COMM'N, 2008 SOURCEBOOK OF FEDERAL SENTENCING STATISTICS tbl.30 (2008) (reporting that 12.4% of federal defendants received downward departures for "substantial assistance in the investigation or prosecution of another person who has committed an offense"). The use of informant testimony is also a common feature of false conviction cases. The Innocence Project reports that an informant testified in more than 15% of cases in which the conviction was later overturned based on DNA testing. The Innocence Project at the Benjamin N. Cardozo School of Law, Informants/Snitches, http://www.innocenceproject.org/understand/Snitches-Informants.php (last visited Feb. 18, 2009). *See also* N.W. UNIV. SCH. OF LAW CTR. ON WRONGFUL CONVICTIONS, THE SNITCH SYSTEM: HOW SNITCH TESTIMONY SENT RANDY STEIDL

tors can offer incentives that other lawyers cannot. While the duty not to present perjured testimony applies to all lawyers, no defense or civil attorney can offer leniency in a pending criminal matter in exchange for favorable testimony. The factfinder should, of course, learn about these incentives and can weigh them in deciding whether to believe the witness. But the way these deals are structured usually leaves the specifics to be resolved only after the witness has provided the testimony.[165] The only explicit promise may be that the prosecutor will consider the witness's cooperation in resolving the witness's case.[166] To a jury, this vague promise might not sound like enough of a reason to lie. But to the parties, this assurance is significant.[167] The witness's attorney who negotiated the agreement with the prosecutor may know from experience that helpful testimony will result in a substantial break for the witness. A prosecutor who fails to make good on that expectation would find it hard to negotiate such deals in the future. But a juror who is not educated in the significance of this understanding may underestimate the cooperating witness's incentive to lie or shade testimony in an effort to please the prosecutor.

Thus, relying on the prosecutor's good judgment in negotiating deals with cooperating witnesses is unrealistic, and existing adversarial mechanisms for testing the credibility of witnesses fail to provide an effective safeguard against perjury. Many scholars have proposed measures to address problems associated with the use of cooperating witnesses, such as better training of prosecutors about bias and deception detection, more judicial oversight, and greater transparency in the negotiation process.[168] In light of

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AND OTHER INNOCENT AMERICANS TO DEATH ROW 3 (2005), *available at* http://www.innocenceproject.org/docs/SnitchSystemBooklet.pdf.

165. *See* Cassidy, *supra* note 160, at 1157-58.

166. *See id.* at 1158. Professor Cassidy argues that prosecutors can get around the requirement to disclose promises to witnesses by simply keeping the promises vague. *Id.* at 1132, 1157-59.

167. *See id.* at 1148 (noting that consideration for cooperation may be very vague, but powerful, when accompanied by a statement like, "We'll just have to see how it goes, but if you really come through at trial I will recommend in my substantial assistance motion that the judge give you the street").

168. *See, e.g.*, Sam Roberts, Note, *Should Prosecutors Be Required to Record Their Pretrial Interviews with Accomplices and Snitches?*, 74 FORDHAM L. REV. 257, 289-94, 298-302 (2005) (advocating that prosecutors and their agents be required to record interviews with cooperating witnesses and to disclose those recordings to the defense); Harris, *supra* note 164, at 61-62 (proposing that admission of testimony from a compensated witness be subjected to a pretrial reliability hearing); Steven M. Cohen, *What Is True? Perspectives of a Former Prosecutor*, 23 CARDOZO L. REV. 817, 825-26 (2002) (advocating for better training of police and prosecutors in interview techniques and deception detection); Martin, *supra* note 159, at 863 (discussing recommendation of one Canadian trial judge that jailhouse informants' testimony be inadmissible (citing Manitoba Justice, Jailhouse Informants, Their Unreliability, and

what psychological research tells us about the limits of people's ability to be objective in contexts like these, the most successful measures are likely to be those that rely least on prosecutors' good faith judgments.[169] If prosecutors are motivated to believe cooperating witnesses, educating them about the importance of objectivity and in detecting deception will likely be futile unless accompanied by greater transparency in the negotiation and interview process. A prosecutor's genuine but misplaced trust in a cooperating witness may be the least malleable feature of the situation. Reforms that rely on the prosecutor being able to make a more objective assessment of the case are therefore likely to have little impact. On the other hand, those that improve the transparency of the process (such as by mandatory recording of interviews and educating the jury about the true value of the consideration the witness receives) can allow the jury to make a better-informed credibility determination regardless of what the prosecutor may in good faith believe.[170]

C. Investigatory Decision Making and Tunnel Vision

"Tunnel vision" refers to a collection of cognitive heuristics and tendencies that investigators sometimes employ once they focus on a particular suspect.[171] An investigator exhibiting tunnel vision selects and filters evidence with an eye toward building a case against that suspect and consequently overlooks evidence that undermines it.[172] This tendency can affect investigators' management of a case in a number of ways, such as in how they question witnesses, interrogate suspects, conduct eyewitness identification procedures, and handle informants.[173]

Prosecutors often work closely with police, participating in investigatory decisions. As a result, prosecutors are in a unique position to serve as a check on the police's work. Ideally, the prosecutor offers a fresh set of eyes to evaluate the sufficiency and trustworthiness of the evidence collected by police,

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the Importance of Complete Crown Disclosure Pertaining to Them: U.S. Studies on Jailhouse Informants, http://www.gov.mb.ca/justice/publications/sophonow/jail house/us.html) (last visited Sept. 18, 2009)).

169. Cassidy, *supra* note 160, at 1176 ("The likelihood of fabrication resulting from bargained-for testimony is simply too great to rely on a prosecutor's honor and good faith in meeting his discovery obligations with respect to accomplice witnesses. Prosecutors are advocates with strong personal and professional incentives to win their cases. The criminal justice system cannot continue to rely on bald exhortations to prosecutors to 'seek justice' and expect that a defendant's right to a fair trial will be protected.").

170. *See* Gershman, *supra* note 159, at 861 (proposing that all interviews with potential trial witnesses should be electronically recorded to allow jurors to better assess veracity).

171. Martin, *supra* note 159, at 848. Findley & Scott, *supra* note 5, at 292.

172. Findley & Scott, *supra* note 5, at 292.

173. Martin, *supra* note 159, at 848.

assuring that potential leads or alternative theories are fully explored.[174] But, to the extent that prosecutors and police identify themselves as part of the same team sharing a common goal,[175] they are susceptible to "groupthink." Groupthink is the tendency of a group to converge on a single interpretation of the evidence, at which point the individual members are less likely to question the interpretation's underlying assumptions.[176]

Prosecutors may therefore be unable to serve as a meaningful check on the accuracy of police investigations, despite an intention to evaluate the case objectively.[177] But others could fill that role. For example, Dutch police often call upon independent crime analysts to counter tunnel vision and groupthink.[178] The analysts systematically code the evidence to look for patterns that give rise to various causal scenarios describing who was involved and how the events occurred. If the police have overlooked any of these scenarios, the analysts can offer alternative explanations of the case and identify missing pieces of evidence.[179]

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174. *See Remedies for a Broken System*, *supra* note 7, at 407 ("Practically speaking, the prosecutor is the first line of defense against many of the common factors that lead to wrongful convictions. The prosecutor's supervisory authority to evaluate the quality and quantity of evidence holds the potential for assuring the accused both procedural and, when the accused is actually innocent, substantive justice. When prosecutors do not critically examine the evidence against the accused to ensure its trustworthiness, or fail to comply with discovery and other obligations to the accused, rather than act as ministers of justice, they administer injustice." (footnotes omitted)).

175. Along similar lines, Professor Pizzi argues that what truly distinguishes adversarial from other systems – namely, the inquisitorial justice systems used in continental Europe – is not what happens at trial but the relationship between police and prosecutors. PIZZI, *supra* note 16, at 111-12. In continental European countries, police are seen as investigators for both parties. *Id.* at 112-12. The results of their investigation go into a single dossier prepared for the court from which all participants work. *Id.* In adversarial systems such as in the United States and England, however, the police and prosecutors are viewed as part of the same camp – the "State." *Id.* at 112-13. The police share the results of their investigation with the prosecution but may be reluctant to disclose information to their opponent – the defense – unless compelled to do so by formal rules of discovery. *Id.* at 112-13, 121-24. This alliance with the prosecution, he argues, leads to police investigations biased to favor conviction. *Id.* at 124-26.

176. IRVING L. JANIS, GROUPTHINK: PSYCHOLOGICAL STUDIES OF POLICY DECISIONS AND FIASCOES 7-9 (2d ed. 1982).

177. See Findley & Scott, *supra* note 5, for a discussion of the ways in which tunnel vision can affect all stages of a case, from investigation through post-conviction proceedings. *See also* Martin, *supra* note 159, at 848.

178. José H. Kertstholt & Aletta R. Eikelbloom, *Effects of Prior Interpretation on Situation Assessment in Crime Analysis*, 20 J. BEHAV. DECISION MAKING 455, 463 (2007).

179. See *id.* at 456, for a description of the method the analysts use to review the case.

Psychologists Kertstholt and Eikelbloom studied the decision-making processes of these Dutch crime analysts.[180] Interestingly, they found that knowledge of the primary investigators' theory of the case influenced the independent analysts – despite their expertise and mandate to be objective.[181] That is, analysts who knew what the investigators were thinking were more likely to reach similar interpretations of the case than were analysts blind to that information.[182] Their ability to offer a fresh perspective requires that they be not just an outsider to the team but also ignorant of the team's hypotheses about the case. This finding suggests just how difficult it can be to purge these biases from the decision-making process, even for people who are highly trained and motivated to be accurate. If expert crime analysts charged with the explicit task of countering bias cannot achieve perfect objectivity, it seems especially unrealistic to expect prosecutors to do so in light of their relationship with police and incentive to garner convictions.

VI. CONCLUSION

Rachlinski and Farina argue that "bad public policy occurs when decision-making structures and protocols fail to counteract human cognitive limitations."[183] Beyond merely failing to counteract them, the studies presented in this Article suggest that the structures and protocols under which prosecutors labor may exacerbate them, making the expectation that they satisfy dual roles untenable. Changing the system of incentives and deterrents in which prosecutors operate can temper overzealousness in some situations. For instance, the threat of sanctions may deter misconduct when the rules at issue are clear and prosecutors are conscious of the temptation to violate them. But when objectivity is compromised in more subtle ways, prosecutors' good intentions and training might not be enough to overcome their cognitive biases. Rather than lamenting their human failings, the best approach is to limit prosecutors' discretion when it would be most tempting to exercise it in a self-serving manner. Relying on prosecutors to act as anything but advocates in those situations may simply be unrealistic.

Limiting discretion is at best a partial solution. For a few well-defined aspects of the prosecutorial decision-making process that are most vulnerable to predictable and stubborn biases, constraining discretion may work well enough. But, given that so much of the current system relies on granting prosecutors ample discretion, the best approach may be to impose systems of accountability that foster careful and even-handed decision making. Research on accountability demonstrates that decision makers come closest to this ideal

180. *Id.* at 457-62.

181. *Id.* at 464.

182. *Id.* at 463.

183. Jeffrey J. Rachlinski & Cynthia R. Farina, *Cognitive Psychology and Optimal Government Design*, 87 CORNELL L. REV. 549, 580 (2002).

when they know that they will be judged primarily for the process of their decision making, as opposed to the outcome. This sort of accountability could come through internal procedures, by way of review within a prosecutor's office,[184] or through an outside agency's supervision.[185] Figuring out how to design such a supervisory system would have its challenges: any proposed solution runs the risk of providing so little oversight that it operates as nothing more than a rubber stamp or so much that it over-deters legitimate prosecutorial behavior. Certainly, any system of accountability can have unintended consequences, but what the psychological research tells us so far suggests that this may be a fruitful avenue for reform.

184. See Stephanos Bibas, *Prosecutorial Regulation Versus Prosecutorial Accountability*, 157 U. PA. L. REV. 959, 996-1016 (2009), for a compelling proposal to institute reform from within prosecutors' offices. Professor Bibas draws on management literature to argue that "[s]imply commanding ethical, consistent behavior is far less effective than creating an environment that hires for, inculcates, expects, and rewards ethics and consistency." *Id.* at 963.

185. *See* Vorenberg, *supra* note 7, at 1567 (proposing legislative oversight of prosecutorial decision making).

APPENDIX

Table 1

Condition	Interpretation of Ambiguous Evidence Against Suspect[186]	Investigation into Suspect[187]	Convergence Toward Guilt[188]
Control (20)[189]	-.76 (.54)[190]	1.05 (.69)	.05 (.24)
Outcome (42)	-.65 (.72)	1.02 (.81)	.14 (.22)
Process (33)	-.57 (.70)	1.00 (.83)	.08 (.20)
Persuade (28)	-.16 (.79)[191]	1.54 (.84)[192]	.25 (.23)[193]

186. Interpretation of Ambiguous Evidence Consistent with Prime Suspect's Guilt: Four items were coded from -2 (evidence made participant less certain of prime suspect's guilt) to 2 (evidence made them more certain of his guilt). Values in table reflect mean score for each item.

187. Lines of Investigation Chosen Focused on Prime Suspect's Guilt: Mean number of lines of investigation out of a total of three that focused on prime suspect.

188. Convergence of Opinions Consistent with Prime Suspect's Guilt: Mean shift of opinion calculated by subtracting each score on fourteen questions asked at the start of the study from the corresponding score completed at the end (1 = Strongly Agree to 5 = Strongly Disagree, with appropriate items reverse coded). Values shown in the table are the mean shifts in opinion per question; positive values indicate a shift *toward* agreement with items supporting a theory of prime suspect's guilt.

189. Number of participants per condition is provided in parentheses.

190. Standard deviations are provided in parentheses.

191. I conducted an analysis of variance (ANOVA) to test the effects of different types of incentives on participants' interpretation of the evidence. Accountability affected participants' interpretation of ambiguous or inconsistent evidence, $F(3, 119) = 4.10, p < .01$. Contrasts revealed that persuasion participants interpreted ambiguous or inconsistent evidence in a way that was more consistent with prime suspect's guilt than did control participants, $t(119) = 2.90, p < .01$, but neither outcome nor process participants differed from control, both $ts < 1$.

192. Participant groups varied in the number of lines of investigations they chose that focused on prime suspect, $F(3, 119) = 2.97, p < .05$. Contrasts revealed that persuasion participants chose to pursue more lines of investigation that focused on the prime suspect than did control participants, $t(119) = 2.06, p < .05$, but neither outcome nor process participants differed from control, $ts < 1$.

193. Participant groups differed in how much their opinions about general propositions relevant to the case converged toward a theory that the prime suspect was

Table 2

Condition	Memory for Guilt Consistent Information[194]	Investigation into Suspect[195]	Convergence Toward Guilt[196]	Reports About Suspect[197]
Control[198] (19)[199] (no questions)	.56 (.09)[200]	1.05 (.71)	-.01 (.29)	1.00 (82)
Control (18) (questions)	.58 (.09)	.95 (1.00)	.09 (.30)	.89 (.68)
Outcome (15)	.57 (.11)	1.00 (.76)	.05 (.24)	1.07 (.80)
Process (20)	.55 (.08)	.90 (.72)	.21 (.30)	1.05 (.51)
Persuade (19)	.64 (.09)[201]	1.63 (.83)[202]	.23 (.39)[203]	1.47(1.07)[204]

guilty, $F(3, 118) = 4.32$, $p < .01$. When contrasted with control participants, persuasion participants modified their opinions in a manner consistent with the prime suspect's guilt, $t(118) = 3.10$, $p < .01$. That is, after reading the file, persuasion participants' opinions converged toward agreement with propositions supporting the theory that the prime suspect committed the crime and diverged from propositions that supported another theory. No statistically significant differences emerged for the memory test, $F(3, 119) = 1.37$, $p > .10$, or for the number of additional reports focused on the prime suspect that participants requested, $F < 1$.

194. Memory for Information Consistent with Prime Suspect's Guilt: Values in table reflect mean percentage of true-false answers given that were consistent with prime suspect's guilt, regardless of accuracy.

195. Lines of Investigation Chosen Focused on Prime Suspect's Guilt: Mean number of lines of investigation out of a total of three that focused on prime suspect.

196. Convergence of Opinions Consistent with Prime Suspect's Guilt: Mean shift of opinion calculated by subtracting each score on fourteen questions asked at the start of the study from the corresponding score completed at the end (1 = Strongly Agree to 5 = Strongly Disagree, with appropriate items reverse coded). Values shown in the table are the mean shifts in opinion per question; positive values indicate a shift toward agreement with items supporting a theory of the prime suspect's guilt.

197. Additional Reports Requested Focused on Prime Suspect's Guilt: Mean number of additional reports requested that focused on the prime suspect out of a total of four.

198. "Control (no questions)" participants simply read through the file without interruption; "Control (questions)" participants were asked halfway through the file what questions they would like to ask but were not told they would be accountable for their performance.

199. Number of participants per condition is provided in parentheses.

200. Standard deviations are provided in parentheses.

201. Percentage of unambiguous questions answered correctly did not vary by condition, $F < 1$. Participants varied marginally in how they answered true-false items related to the prime suspect's guilt (both ambiguous and unambiguous), $F(4, 86) = 2.40$, $p < .10$. Compared to the two groups of control participants, persuasion

participants remembered as true more information consistent with the prime suspect's guilt and remembered as false less information inconsistent with his guilt, $t(86) = 2.44, p < .05$.

202. Number of lines of investigations participants chose that focused on the prime suspect varied by accountability type, $F(4, 86) = 2.60, p < .05$. Contrasts revealed that persuasion participants chose to pursue more lines of investigation that focused on the prime suspect than did control participants, $t(86) = 2.78, p < .01$, but neither outcome nor process participants differed from control, $ts < 1$. There were no significant differences between the two control conditions for any of the measures. All contrasts are therefore conducted against both control groups.

203. Participants differed marginally in how their opinions about general propositions relevant to the case converged toward a theory of the prime suspect's guilt, $F(4, 86) = 2.14, p < .10$. Contrasted with control participants, persuasion participants modified their opinions in a manner consistent with the prime suspect's guilt, $t(86) = 2.15, p < .05$. That is, after reading the file, persuasion participants' opinions converged toward agreement with propositions supporting the theory that the prime suspect committed the crime and diverged from propositions that supported another theory. Process participants' opinions converged marginally toward a theory of the prime suspect's guilt compared to control participants, $t(86) = 1.98, p < .10$. Outcome participants did not differ from control, $t < 1$.

204. An omnibus ANOVA revealed no significant differences across conditions in how many additional reports focused on the prime suspect that participants requested, $F(4, 86) = 1.47, p > .10$. But the pattern was the same as with other measures: a contrast revealed that persuasion participants requested more reports focused on the prime suspect than did control participants, $t(86) = 2.36, p < .05$.