

ARTICLE

TIMING BRADY

*Miriam H. Baer**

*Criminal discovery reform has accelerated in recent years, triggered in part by the prosecution's widely perceived failure to abide by its constitutional obligation, articulated in *Brady v. Maryland*, to disclose exculpatory evidence. Practitioners and academics, disillusioned by the Supreme Court's hands-off approach, have sought reform along three axes: legislatively expanding criminal discovery's scope, increasing the degree and likelihood of prosecutorial sanctions, and altering the organizational dynamics that encourage prosecutors to withhold exculpatory evidence.*

*None of these approaches, however, addresses the issue of timing and its effect on prosecutors. Over the course of a prosecution, incentives to withhold evidence develop, and temptations to withhold it recur. Accordingly, popular reform efforts such as mandatory "open-file" discovery remain incomplete. Just like *Brady* itself, these well-intentioned reforms are destined to fall short of their goals so long as they fail to address criminal discovery's temporal dimension.*

This Article inquires how timing affects the prosecutor's decision to disclose or withhold exculpatory evidence in advance of a criminal trial. After laying out timing's importance, the Article then explores its policy and design implications for criminal discovery reform. By consciously addressing timing, reformers across state and federal juris-

* Professor, Brooklyn Law School. The author was an Assistant U.S. Attorney in the Southern District of New York from 1999 to 2004. This Article was greatly improved by feedback from Darryl Brown, Sam Buell, Bennett Capers, Deborah Denno, Brandon Garrett, Adam Gershowitz, Bruce Green, David Jaros, Mark Kelman, Caren Myers Morrison, Dan Richman, Paul Stancil, Colin Starger, Jenia Iontcheva Turner, Robert Weisberg, and workshop attendees at the Stanford–Yale–Harvard Junior Faculty Forum, the CrimProfs Conference at Rutgers School of Law–Newark, the Fordham Shmooze and the Seminar on Advanced Criminal Law and Criminal Procedure at Fordham Law School, the Midwestern Law and Economics Association's Annual Meeting at the University of Illinois College of Law, the ABA Criminal Law Educators Roundtable in Washington, D.C., and the New York City Junior Faculty Forum held at Fordham Law School. Outstanding research assistance was provided by Shannon Daugherty, Joanna Menillo, Jackie Dombroff, and Carissa Pond. Special thanks to Dean Nicholas Allard and Brooklyn Law School, whose generous summer stipend supported the writing of this Article.

dictions can better guarantee the defendant's access to exculpatory evidence.

INTRODUCTION	2
I. <i>BRADY</i> VIOLATIONS: CONVENTIONAL EXPLANATIONS AND APPROACHES	10
A. <i>Brady's</i> Framework	11
B. Three Models of Misconduct.....	15
1. The Bad Agent.....	15
2. The Boundedly Rational Prosecutor	18
3. The Dysfunctional Bureaucrat.....	20
C. Conventional Reforms	22
1. Scope	22
2. Sanctions.....	26
3. Organizational Dynamics	28
II. HOW TIMING AFFECTS PROSECUTORS.....	31
A. Incentives Evolve	32
1. Early Stages: Uncertainty and Alternatives	32
2. Later Stages: Alternatives Narrow and Costs Increase	35
3. Conclusion	38
B. Temptations Recur.....	39
III. TIMING'S IMPLICATIONS FOR CRIMINAL DISCOVERY REFORM.....	43
A. (One More of) <i>Brady's</i> Shortcomings	43
B. Sanctions	45
C. Norms and Organizational Dynamics	46
D. Scope-Based Reform	49
1. Timing and the Open-File Policy.....	50
2. Scope-Based Reform's Costs.....	51
IV. TYING THE PROSECUTOR TO THE MAST: THE TEMPORAL BENEFITS OF MANDATORY EARLY-DISCLOSURE SCHEMES.....	57
A. Temporal Reform in the Abstract: The Value of Precommitment	59
B. Temporal Reform on the Ground: Mandatory Early Disclosure	61
CONCLUSION.....	66

INTRODUCTION

Criminal discovery reform is ascendant.¹ The strong law-and-order coalition that defended limited disclosure for nearly a century seems

1. See Darryl K. Brown, *The Decline of Defense Counsel and the Rise of Accuracy in Criminal Adjudication*, 93 *Calif. L. Rev.* 1585, 1642 (2005) [hereinafter Brown, *Criminal*].

poised to disappear.² State legislatures are increasingly adopting more generous discovery regimes, many of which impose earlier and more rigorous disclosure requirements on prosecutors.³ So-called “open-file” laws now require the prosecution to disclose the bulk of its files in advance of trial, and sometimes much earlier.⁴ Federal criminal discovery, although still comparatively narrow, has become a target for periodic bipartisan reform proposals.⁵ Across broad- and narrow-discovery jurisdictions alike, district attorneys and lead prosecutors have publicly acknowledged criminal discovery’s importance in ensuring a fair and efficient criminal justice system.⁶

The impetus for this revolution has been the Innocence Movement’s painstaking documentation of over two hundred instances in which prosecuting authorities have wrongfully convicted innocent individuals of serious crimes.⁷ As researchers have combed exonerees’ case histories, they

Adjudication] (remarking criminal discovery rights, which were “nearly nonexistent until the 1930s, are now quite broad in many jurisdictions”).

2. See, e.g., *infra* notes 5–6 (describing bipartisan and, in some instances, prosecutorial support for discovery-reform efforts).

3. See, e.g., Press Release, Office of the Governor, Gov. Perry Signs Senate Bill 1611, the Michael Morton Act (May 16, 2013), <http://governor.state.tx.us/news/press-release/18521/> (on file with the *Columbia Law Review*) (describing adoption of new “open-file” discovery regime in Texas); see also Tex. Code Crim. Proc. Ann. art. 39.14 (West Supp. 2014) (codifying reforms).

4. See *infra* Part I.C.1 (describing open-file laws).

5. Despite their lack of success in expanding federal criminal discovery, reformers continue to press for broader disclosure. For discussion, see R. Michael Cassidy, Plea Bargaining, Discovery, and the Intractable Problem of Impeachment Disclosures, 64 *Vand. L. Rev.* 1429, 1445–52 (2011) (describing proposals intended to ensure federal disclosure of impeachment evidence prior to defendant’s entry of guilty plea); Bruce A. Green, Federal Criminal Discovery Reform: A Legislative Approach, 64 *Mercer L. Rev.* 639, 641–42 (2013) [hereinafter Green, Federal Criminal Discovery Reform] (describing bill proposed by Senator Lisa Murkowski and observing Department of Justice was so concerned by bill it “dispatched its second highest ranking representative . . . to testify against the bill”).

6. A remarkable symposium hosted by the Benjamin N. Cardozo School of Law to “explore and identify the best practices” in criminal discovery included “representatives from state and federal prosecutors’ offices, defense lawyers, judges,” and experts from numerous fields. *New Perspectives on Brady and Other Disclosure Obligations: Report of the Working Groups on Best Practices*, 31 *Cardozo L. Rev.* 1961, 1961 (2010) [hereinafter *New Perspectives on Brady*]. Members of the Working Group on Prosecutorial Disclosure Obligations and Practices concurred in the belief that “prosecutorial disclosure is necessary to promote the public interest in achieving fair trials and reliable outcomes in the criminal justice system.” *Id.* at 1964.

7. See, e.g., Brandon L. Garrett, Judging Innocence, 108 *Colum. L. Rev.* 55, 55–63 (2008) [hereinafter Garrett, Judging Innocence] (examining first 200 cases in which defendants were ultimately exonerated through DNA evidence). Garrett expounds further on his findings and their implications for criminal justice reform in Brandon L. Garrett, Convicting the Innocent: Where Criminal Prosecutions Go Wrong 5–13 (2011) [hereinafter Garrett, Convicting the Innocent], in which he examines systemic failures in the first 250 DNA exoneration cases.

have observed instances in which prosecutors failed to disclose exculpatory evidence.⁸ Along with other well-publicized instances of nondisclosure, these findings have led researchers to conclude that the disclosure framework the Supreme Court erected in its landmark case *Brady v. Maryland*⁹ is ineffective and in need of reform.¹⁰

Derived from the due process clauses of the Fifth and Fourteenth Amendments, *Brady* and its progeny require prosecutors to disclose material, exculpatory evidence in time for use at trial or sentencing.¹¹ Scholars and practitioners widely view *Brady*'s disclosure requirement as fundamental to "promoting the fairness of the criminal process."¹² Nevertheless, since its inception, the doctrine has attracted sharp criticism. It establishes the defendant's right to receive exculpatory evidence but safeguards that evidence with the prosecutor, the defendant's adversary.¹³ In the half-century that has elapsed since *Brady* was decided, its critics have grown in number and volume.¹⁴ Defense practitioners and academics cite instances in which prosecutors have either intentionally or negligently withheld exculpatory evidence and often portray these known violations as a small component of a larger, more intractable nondisclosure epidemic among prosecutors' offices.¹⁵

8. See, e.g., Daniel S. Medwed, *Brady's Bunch of Flaws*, 67 Wash. & Lee L. Rev. 1533, 1540 (2010) [hereinafter Medwed, *Brady's Bunch of Flaws*] ("Studies have pinpointed the suppression of exculpatory evidence as a factor in many documented wrongful convictions later overturned by post-conviction DNA testing."). For more on the Innocence Movement and its effect on procedural reform, see generally Jim Dwyer, Peter Neufeld & Barry Scheck, *Actual Innocence: When Justice Goes Wrong and How to Make It Right* (New American Library 2003) (2000) (offering first-person historical account of how Innocence Project evolved); Daniel S. Medwed, *Innocentism*, 2008 U. Ill. L. Rev. 1549 (explaining movement's rise and addressing criticisms).

9. 373 U.S. 83 (1963).

10. For examples of criticism, see Medwed, *Brady's Bunch of Flaws*, supra note 8, at 1534–44 (examining challenges to implementing *Brady* in practice, especially those arising from prosecutors' dual role in criminal justice system); infra notes 13–15 (citing criticisms of *Brady* doctrine).

11. See infra Part I.A (discussing case and its progeny).

12. N.Y.C. Bar Ass'n, Report by the Criminal Courts Committee and Criminal Justice Operations Committee Recommending the Adoption of a *Brady* Checklist 1 (2011), available at http://www2.nycbar.org/pdf/report/uploads/7_20072170-ReportrecommendingtheadoptionofBradychecklist.pdf (on file with the *Columbia Law Review*).

13. See Scott E. Sundby, *Fallen Superheroes and Constitutional Mirages: The Tale of Brady v. Maryland*, 33 McGeorge L. Rev. 643, 644 (2002) ("[I]f academia, the courts, and lawyers are pointing to *Brady* as a means of ensuring that defendants are receiving 'favorable' evidence prior to trial, they are largely pointing to a mirage.").

14. See, e.g., Bruce A. Green, *Beyond Training Prosecutors About Their Disclosure Obligations: Can Prosecutors' Offices Learn from Their Lawyers' Mistakes?*, 31 Cardozo L. Rev. 2161, 2164–65 (2010) [hereinafter Green, *Beyond Training Prosecutors*] (describing doctrine's lack of clarity, particularly with regard to "materiality").

15. See, e.g., Garrett, *Convicting the Innocent*, supra note 7, at 168–70 (observing *Brady* violations played prominent role in number of exonerations); Rachel E. Barkow, *Organizational Guidelines for the Prosecutor's Office*, 31 Cardozo L. Rev. 2089, 2090

Whether *Brady* violations are as pervasive as critics contend is an empirical question that eludes a definitive answer.¹⁶ There is, however, little doubt that *Brady* transgressions have become salient.¹⁷ They have arisen in both state and federal prosecutions,¹⁸ and have infected white-collar and street-crime prosecutions alike. It is no wonder, then, that calls for criminal discovery reform have enjoyed bipartisan support.¹⁹

To date, reform has proceeded along three axes. First, scholars and practitioners have focused on expanding the *scope* of the prosecution's discovery obligation, in some cases seeking rules that require the prosecutor to hand over everything—or at least nearly everything—in her files.²⁰ This solution has earned the label “open-file discovery” although the openness of the file depends greatly on the jurisdiction implementing it.²¹

Second, reformers have attempted to increase the degree and likelihood of *sanctions* for prosecutorial discovery violations. This effort has encountered mixed results: Although a few individuals have been severely penalized for violating *Brady* and its progeny, most prosecutors and their offices remain fairly insulated from the prospect of liability.²²

(2010) (observing *Brady* violations constitute “one of the most common types of prosecutorial misconduct”); Bennett L. Gershman, Reflections on *Brady v. Maryland*, 47 S. Tex. L. Rev. 685, 715 (2006) (“[P]rosecutors have increasingly sought to avoid and subvert the requirements of *Brady*.”).

16. See Garrett, Judging Innocence, *supra* note 7, at 111 n.206 (“[S]uppression of exculpatory evidence is difficult to uncover. Absent discovery of the police and prosecution files, even after exoneration potential *Brady* violations may not come to light.”).

17. As Chief Judge Kozinski of the Ninth Circuit proclaimed in a dissent: “There is an epidemic of *Brady* violations abroad in the land. Only judges can put a stop to it.” *United States v. Olsen*, 737 F.3d 625, 626 (9th Cir. 2013) (Kozinski, C.J., dissenting from denial of rehearing en banc).

18. For discussions of recent federal *Brady* violations, see, e.g., Christopher R. Smith, I Fought the Law and the Law Lost: The Case for Congressional Oversight over Systemic Department of Justice Discovery Abuse in Criminal Cases, 9 *Cardozo Pub. L. Pol’y & Ethics J.* 85, 87–91 (2010) (describing, among others, Ted Stevens and W.R. Grace prosecutions).

19. See, e.g., Green, Federal Criminal Discovery Reform, *supra* note 5, at 641 (discussing introduction of 2012 bill proposing federal discovery reform by Senator Lisa Murkowski, Republican Senator for Alaska); Office of the Governor, *supra* note 3 (announcing Governor Perry supported and signed Michael Morton Act).

20. See The Justice Project, Expanded Discovery in Criminal Cases: A Policy Review 2 (2007), available at http://www.prearesourcecenter.org/sites/default/files/library/expanded_discoveryincriminalcasesapolicyreview.pdf (on file with the *Columbia Law Review*) (advocating open-file discovery in order to “best protect a defendant’s right to due process and improve the system’s ability to efficiently resolve cases”).

21. New Perspectives on *Brady*, *supra* note 6, at 1968 (“[T]he concept requires elaboration and does not fully capture what ought to be disclosed.”).

22. See *infra* notes 135–136, 143–146 and accompanying text (discussing available and unavailable sanctions for prosecutors who withhold *Brady* material).

Finally, reformers have sought to improve the *organizational dynamics* within prosecutors' offices.²³ This growing area of reform recognizes organizational theory's role in improving compliance by individual prosecutors. Office structure, internal training, formal policies, and informal norms all affect the low-level "line" prosecutor's daily decisionmaking. Accordingly, reforms of this type emphasize internal checklist procedures, professional-ethics training, and the need for better cooperation between prosecutors and defense attorneys.²⁴

Missing from all of these discussions, however, is a sustained analysis of timing and its effect on prosecutors. No doubt, reformers have long sought rules commanding early discovery, as early disclosure of the government's case aids defendants in assessing the strength of their cases, bargaining for better plea terms, and developing their defenses in advance of trial.²⁵ Nevertheless, reformers have failed to consider timing's overall effect on prosecutors and their compliance with *Brady*. How does a prosecutor's recognition of exculpatory evidence later in the game affect her likelihood of handing it over and complying with her obligations? Moreover, are prosecutorial preferences static or dynamic, and if the latter, what does that mean for criminal discovery reform?

Drawing upon both economic and behavioral literatures, this Article constructs an account of the "hyperbolic prosecutor," an individual with dynamic and inconsistent preferences.²⁶ This temporally inconsistent prosecutor does not harbor stable preferences throughout the life of a criminal case. Rather, her absolute incentives to withhold evidence evolve over time, and her relative temptations to cheat recur intermittently

23. See, e.g., *New Perspectives on Brady*, supra note 6, at 1984–94 (discussing training and supervision reform); id. at 1995–2010 (examining systems and culture reform); id. at 2011–29 (reviewing internal regulation and reform of audits); see also Christina Parajon, Comment, *Discovery Audits: Model Rule 3.8(d) and the Prosecutor's Duty to Disclose*, 119 *Yale L.J.* 1339, 1348–50 (2010) (advocating internal discovery audits for federal prosecutors' offices).

24. See *infra* Part I.C.3 (describing such reforms).

25. See Green, *Federal Criminal Discovery Reform*, supra note 5, at 650–51 (remarking early discovery "provides defense lawyers an opportunity to investigate and to prepare the defense more effectively as well as to advise their clients against pleading guilty when impeachment material exposes unexpected weaknesses in the government's proof"); see also Russell D. Covey, *Plea-Bargaining Law After Lafler and Frye*, 51 *Duq. L. Rev.* 595, 617 (2013) (contending pretrial *Brady* disclosures "would help to counteract defendant resignation in the face of misleading inculpatory evidence"). Reformers have been particularly insistent on accelerating federal criminal discovery. See, e.g., Susan R. Klein, *Enhancing the Judicial Role in Criminal Plea and Sentence Bargaining*, 84 *Tex. L. Rev.* 2042–48 (2006) [hereinafter Klein, *Enhancing the Judicial Role*] (proposing advances in federal preplea discovery); Ellen Yaroshfsky, *Prosecutorial Disclosure Obligations*, 62 *Hastings L.J.* 1321, 1337–43 (2011) (identifying timing of disclosure as "most significant disclosure issue in the federal criminal justice system" because late disclosure undermines "fair and effective criminal process").

26. See *infra* notes 205–211 and accompanying text (explaining hyperbolic discounting concept).

throughout the course of the prosecution.²⁷ For these reasons, the moment *when* this prosecutor discovers or receives exculpatory evidence strongly impacts *whether* she will in fact disclose it.

As this Article argues at length, even the most ethical prosecutor will perceive a difference between producing exculpatory discovery in the earlier and later stages of a given case. At the beginning of an investigation, there is little reason for a prosecutor to hang on to one case if she can move quickly and easily to a better prospect.²⁸ But as a particular case proceeds from the investigatory stage to trial, switching becomes more difficult and the prosecutor's personal costs of disclosure increase. When viable substitutes disappear and the costs of disclosure become too steep, the prosecutor is more likely to withhold exculpatory evidence and, in the process, subvert the criminal justice system.²⁹

Absolute costs are bad enough. Cognitive psychology adds an additional gloss: Some individuals register extremely strong reactions to costs or benefits that arise in the immediate or near term. As a result, these individuals perceive present-value costs and benefits much more keenly than they expected to back when they first foresaw them. Researchers refer to this tendency as "present bias" or "hyperbolic discounting."³⁰ Everyone values the present over the future, but the hyperbolic discounter places an extremely strong premium on imminent or near-imminent changes in welfare.³¹ As a result, she "switches preferences" when a particular cost or benefit becomes imminent.³²

27. See *infra* notes 212–215 (laying out framework that distinguishes absolute incentives to withhold evidence and recurring temptations to cheat).

28. See *infra* Part II.A.1 (describing substitutes available to prosecutor who discovers exculpatory evidence during relatively early stage of case).

29. See *infra* Part II.A (laying out argument).

30. The two concepts are related but not identical. Present bias focuses on an immediate time period, whereas hyperbolic discounting models behavior into later periods. See Daniel Read, *Is Time-Discounting Hyperbolic or Subadditive?*, 23 *J. Risk & Uncertainty* 5, 28 (2001) ("An immediacy effect is *not* declining impatience, but rather, a one-time-only charge for delaying consumption."). Regardless, the notion of an immediacy premium illuminates commonly noted problems with self-control. Lee Anne Fennell & Kirk J. Stark, *Taxation over Time*, 59 *Tax L. Rev.* 1, 14–15 (2005) (arguing although there may be disagreement on how well hyperbolic discounting describes actual behavior, the model "usefully captures the idea that lack of self-control can undo previously preferred plans"). For discussions on how either present bias or hyperbolic discounting affects would-be criminals, see Christine Jolls, Cass R. Sunstein & Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 *Stan. L. Rev.* 1471, 1538–40 (1998) (discussing hyperbolic discounting's implications for "effective deterrence of criminal behavior"); Richard H. McAdams, *Present Bias and Criminal Law*, 2011 *U. Ill. L. Rev.* 1607, 1614–31 [hereinafter *McAdams, Present Bias*] (considering effect of present bias on analysis of general deterrence and implications for individual prevention of crime).

31. Joshua D. Wright & Douglas H. Ginsburg, *Behavioral Law and Economics: Its Origins, Fatal Flaws, and Implications for Liberty*, 106 *Nw. U. L. Rev.* 1033, 1043 (2012) ("Stable, time-consistent preferences require a constant exponential discount factor; hyperbolic discounting generates time-inconsistent preferences, sometimes described as present bias."). For more on the concept of hyperbolic discounting as applied to crime,

Consider this theory's application to prosecutors: Disclosing evidence in the distant future may not appear overwhelmingly costly, but it will "feel" different when it becomes imminent. The same is true if one frames the situation in terms of benefits: A guilty-plea proceeding or trial verdict slated to occur in the future appears less valuable in some future time period than when a prosecutor perceives it occurring right *now*. Accordingly, the hyperbolic prosecutor may procrastinate engaging in good deeds when upfront costs seem unbearably high, and she may engage in behavior she knows to be harmful when upfront benefits are just too tempting to ignore.³³

Present bias is most problematic when costs and benefits arise in different time periods.³⁴ Criminal prosecutions are inherently "intertemporal": They unspool in stages over a period of time, and they frequently separate costs and benefits.³⁵ At certain predictable chokepoints—at or

see Manuel A. Utset, *Hyperbolic Criminals and Repeated Time-Inconsistent Misconduct*, 44 *Hous. L. Rev.* 609, 623–25, 659 (2007) [hereinafter Utset, *Hyperbolic Criminals*] (applying hyperbolic discounting principles to analyze underdeterrence of crime and proposing policy solution).

32. Some of the preference-switching literature explains lack of self-control as a "dual self" problem whereby the long-term self prefers some socially desirable course of conduct (e.g., saving money for retirement, complying with the law, or even eating healthily), but the short-term self interferes when certain costs or benefits are imminent. See Drew Fudenberg & David K. Levine, *A Dual-Self Model of Impulse Control*, 96 *Am. Econ. Rev.* 1449, 1449–51 (2006) (explaining "dual self" model). Although other dynamics can explain willpower lapses, researchers attribute at least some of these switches to the presence of a very high discount rate in the near future, followed by a less-steep rate in later periods. See, e.g., Lee Anne Fennell, *Willpower Taxes*, 99 *Geo. L.J.* 1371, 1378–79 (2011) (explaining link between willpower lapses and hyperbolic discounting). For a discussion of alternative explanations for willpower failures, see Rebecca Hollander Blumoff, *Crime, Punishment and the Psychology of Self-Control*, 61 *Emory L.J.* 501, 527–32 (2011). Finally, for an overview of temporal inconsistency in general and a collection of influential articles, see Jon Elster, *Intertemporal Choice and Political Thought*, in *Choice over Time* 35, 35–53 (George Loewenstein & Jon Elster eds., 1992); George Loewenstein, *The Fall and Rise of Psychological Explanations in the Economics of Intertemporal Choice*, in *Choice over Time*, supra, at 3, 3–34.

33. Procrastination and overconsumption thus share the same provenance: "You *procrastinate*—wait when you should do it—if actions involve immediate costs (writing a paper), and *preproperate*—do it when you should wait—if actions involve immediate rewards . . ." Ted O'Donoghue & Matthew Rabin, *Doing It Now or Later*, 89 *Am. Econ. Rev.* 103, 104 (1999) (explaining both phenomena stem from steep discounts that skew temporal gaps between costs and benefits).

34. See McAdams, *Present Bias*, supra note 30, at 1615 (explaining present bias has "main effect" when costs and benefits register in different time periods).

35. Intertemporal decisions are ones "in which the timing of costs and benefits are spread out over time." George Loewenstein & Richard H. Thaler, *Anomalies: Intertemporal Choice*, *J. Econ. Persp.*, Fall 1989, at 181, 181. For earlier and more technical treatments of temporal inconsistency, see generally David Laibson, *Golden Eggs and Hyperbolic Discounting*, 112 *Q.J. Econ.* 443 (1997) (contending individuals invest in illiquid assets to counteract hyperbolic discounting); R.H. Strotz, *Myopia and Inconsistency in Dynamic Utility Maximization*, 23 *Rev. Econ. Stud.* 165 (1956) (theorizing consumption behavior of individual who fails to adhere to long-term optimal plan).

near the conclusion of a hearing, prior to the entry of a guilty plea, or a few days before the commencement of a trial—the benefits of closing out or winning a case become tantalizingly imminent, and the prosecutor’s temptation to engage in misconduct spikes precipitously.³⁶

In sum, timing matters, and it matters to prosecutors. Criminal discovery reform has changed remarkably since the 1960s, the decade in which *Brady* was decided.³⁷ State and local jurisdictions permit defense counsel broader, earlier, and more generous access to the government’s investigative files, and prosecutors’ offices themselves have intoned a desire to implement training and adopt familiar compliance tools such as internal checklist procedures.³⁸ These reforms are bound to disappoint, however, insofar as they fail to recognize the prosecutor’s dynamic preferences. Discovery’s timing, and the persistent problem of evidence acquired later in the course of a prosecution, will always affect prosecutors, regardless of their office structure, their fears of professional sanctions, or the scope of the discovery obligation that prevails in their particular jurisdiction. Accordingly, the time has come to think more carefully about the *Brady* violation’s temporal component.

The remainder of this Article unfolds in the following manner. Part I examines conventional explanations for *Brady* violations and the three most popular areas of reform. Part II constructs a dynamic account of prosecutorial preferences and explores how timing affects the prosecutor’s compliance with *Brady*. Part III revisits the question of *Brady* reform with this temporal lens in mind and critically analyzes the scope, sanction, and organizational-dynamics efforts that have become so popular among reformers.

Part IV draws upon the commitment-device³⁹ literature and proposes a reform that some have referred to as “automatic” or “mandatory early

36. See Russell B. Korobkin & Thomas S. Ulen, Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics, 88 Calif. L. Rev. 1051, 1120 (2000) (“[F]or many people, preferences between logically identical sets of choices may reverse in a predictable direction as the temporal context of the choice changes.”).

37. See Brown, Criminal Adjudication, *supra* note 1, at 1624 (referring to recent changes, including adoption of open-file policies and expansion of discovery rights). In contrast, Professor David Louisell’s 1961 article marveled at the “little short of phenomenal” expansion of criminal discovery by California state-court judges who merely had begun to order the *production* of criminal discovery. David W. Louisell, Criminal Discovery: Dilemma Real or Apparent?, 49 Calif. L. Rev. 56, 59 (1961).

38. See *supra* note 6 (discussing call for procedure facilitating disclosure of evidence).

39. The temporal-inconsistency literature uses the terms “commitment” and “precommitment” interchangeably. See Michael Abramowicz & Ian Ayres, Commitment Bonds, 100 Geo. L.J. 605, 607 n.4 (2012) (citing Jon Elster, Ulysses Unbound: Studies in Rationality, Precommitment, and Constraints 4 (2000) [hereinafter Elster, Ulysses Unbound]) (noting both terms have been used interchangeably). This Article employs the more popular of the two terms, “precommitment.” See *id.* (noting literature “often” uses term “precommitment” instead of “commitment”).

disclosure.”⁴⁰ This regime would oblige prosecutors to disclose at the outset of a case the existence and location of key categories of evidence, although not the evidence itself. The disclosure would take place in court and would require, as the case unfolded, the prosecutor’s periodic attestation as to the truthfulness and completeness of her previous disclosures. As such, it addresses the *Brady* violation’s twin temporal components: It forces the prosecutor to disclose information *early* in the case, when incentives are least likely to cause her to cheat, and it requires her to attest *often* to the accuracy of these disclosures in open court. Finally, as discussed in the final sections of this Article, the reform is valuable precisely because it permits differentiated levels of discovery among state and federal jurisdictions. It can improve *Brady* compliance in narrow-scope-discovery jurisdictions and it can supplement open-file regimes in broad-discovery jurisdictions. Contrary to what some reformers may prefer,⁴¹ it does not universalize the scope of discovery, but rather it ensures the prosecutor’s commitment to a course of disclosure before incentives and temptations raise their ugly heads.

I. *BRADY* VIOLATIONS: CONVENTIONAL EXPLANATIONS AND APPROACHES

The Supreme Court decided *Brady* in 1963, declaring that the prosecutor’s failure to hand over materially exculpatory evidence in time for use at trial subverted the defendant’s due process rights and required a new trial.⁴² Although *Brady* has long been hailed as a landmark case that established the defendant’s right to receive exculpatory evidence, it also left prosecutors in charge of collecting and distributing such evidence.⁴³

This Part describes the conventional explanations and prescriptions for *Brady* violations. Part I.A briefly summarizes *Brady* and its progeny.

40. Part IV expands upon earlier proposals and explains how automatic disclosure can function as a precommitment device. See The Justice Project, *supra* note 20, at 2 (recommending provisions requiring “mandatory and automatic disclosure” of evidence in criminal cases); Brown, *Criminal Adjudication*, *supra* note 1, at 1636–37 (recommending judicial review of prosecutor’s investigatory file); Stephen D. Easton & Kaitlin A. Bridges, *Peeking Behind the Wizard’s Curtain: Expert Discovery and Disclosure in Criminal Cases*, 32 *Am. J. Trial Advoc.* 1, 7 (2008) (citing proliferation of “automatic disclosure obligations” across various jurisdictions); Susan R. Klein, *Monitoring the Plea Process*, 51 *Duq. L. Rev.* 559, 564 (2013) [hereinafter Klein, *Monitoring the Plea Process*] (advocating mandatory preplea discovery conference between parties and court).

41. For a recent claim favoring a single rule of discovery for all jurisdictions, see Janet Moore, *Democracy and Criminal Discovery Reform After Connick and Garretti*, 77 *Brook. L. Rev.* 1329, 1384–86 (2012) (arguing full open-file discovery should expand to all jurisdictions).

42. 373 U.S. 83, 87 (1963). For an in-depth discussion of the case and its historical context, see Stephanos Bibas, *Brady v. Maryland: From Adversarial Gamesmanship Toward the Search for Innocence?*, in *Criminal Procedure Stories* 129, 129–54 (Carol Steiker ed., 2005).

43. See Medwed, *Brady’s Bunch of Flaws*, *supra* note 8, at 1535 (“*Brady* represented a marriage of two somewhat disparate images of the prosecutorial function.”).

Part I.B explores the three most popular explanations for prosecutorial nondisclosures including rational self-interest, cognitive bias, and bureaucratic dysfunction. Finally, Part I.C discusses the three axes of reform favored by scholars and practitioners: scope, sanctions, and organizational dynamics. As argued later in Part III, however valuable these reforms may be, they fail to adequately address timing's effect on prosecutors.

A. Brady's Framework

Brady and its progeny require the prosecution to disclose material evidence "favorable to an accused."⁴⁴ The obligation encompasses impeachment evidence, including "any understanding or agreement" between the prosecutor and a testifying witness regarding that witness's future prosecution.⁴⁵ *Brady* itself involved evidence that had been sought by the defendant's attorney; the Court later clarified, however, that the obligation arises regardless of any attorney's request.⁴⁶ It extends to evidence within the prosecutor's immediate possession, as well as evidence held by investigating agencies.⁴⁷ Moreover, the prosecutor's mental state is irrelevant: An unintentional failure to disclose materially exculpatory evidence is as much a violation as a purposive one.⁴⁸ This is so because the *Brady* rule's purpose is not to "punish[] . . . society for misdeeds of a prosecutor," but rather to remove the taint of unfairness from the defendant's conviction.⁴⁹

Lower courts have held that exculpatory evidence need not be disclosed immediately, but rather, "in time for its effective use" at trial.⁵⁰ This lax requirement conflicts with the American Bar Association's interpretation of its Model Rule 3.8, which has been adopted by nearly all state jurisdictions and which requires prosecutors to *timely* disclose all exculpatory *information* (not just admissible "evidence") upon discovery.⁵¹

44. *Brady*, 373 U.S. at 87 ("[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 . . .").

45. *Giglio v. United States*, 405 U.S. 150, 154–55 (1972).

46. *United States v. Agurs*, 427 U.S. 97, 107 (1976).

47. See *Kyles v. Whitley*, 514 U.S. 419, 437 (1995) (holding prosecutors harbor duty to "learn of any favorable evidence known to the others acting on the government's behalf in the case, including the police").

48. *Brady*, 373 U.S. at 87 (finding failure to hand over material exculpatory evidence "violates due process . . . irrespective of the good faith or bad faith of the prosecution"); see also *Giglio*, 405 U.S. at 154 (observing "whether the nondisclosure was a result of negligence or design, it is the responsibility of the prosecution").

49. *Brady*, 373 U.S. at 87.

50. See, e.g., *United States v. Coppa*, 267 F.3d 132, 135, 142 (2d Cir. 2001) (holding prosecutor must disclose material exculpatory information no later than "point at which a reasonable probability will exist that the outcome would have been different" had earlier disclosure been made).

51. Model Rules of Prof'l Conduct R. 3.8(d) (2010); see also Barry Scheck & Nancy Gertner, *Combatting Brady Violations with an 'Ethical Rule' Order for the Disclosure of*

In a 2009 formal opinion, the ABA's Standing Committee on Ethics and Professional Responsibility interpreted "timely" to mean "as soon as reasonably practicable."⁵² The ethical rule's bite, however, is much weaker than its bark. The likelihood of a disciplinary proceeding on these grounds is already quite low and is all but nonexistent for federal prosecutors governed by the Jencks Act, a federal statute that explicitly permits prosecutors to delay disclosure of impeachment evidence until after a witness has testified.⁵³

Brady does not demand the disclosure of every piece of potentially exculpatory evidence, but instead focuses only on "evidence" that is "material" to the defendant's case.⁵⁴ In the first instance, the prosecutor decides whether a given piece of evidence meets *Brady*'s definition.⁵⁵ The Supreme Court has elaborated that evidence is material if it "undermines confidence in the verdict" and there exists "a reasonable probability that had the evidence been disclosed to the defense, the result of the proceeding would have been different."⁵⁶ Judged against the whole of the prosecutor's case,⁵⁷ the materiality standard all but invites prosecutors to delay disclosure while they assess the weight and likely effect of a given piece of information.⁵⁸ As Professor Bruce Green points out, lower courts *could* have construed the "materiality" standard solely as a harmless-error standard on appeal while explicitly preserving the prosecutor's obligation to produce "all" exculpatory information.⁵⁹ But, as Green and others

Favorable Evidence, *Champion*, May 2013, at 40, 40, available at <http://www.nacdl.org/Champion.aspx?id=28478> (on file with the *Columbia Law Review*) (explaining "ABA devised Rule 3.8 to be unambiguously broad" because *Brady* itself was narrow and confusing).

52. See ABA Comm. on Ethics & Prof'l Responsibility, Formal Op. 09-454 (2009) (considering prosecutor's duty to disclose favorable evidence). Although ABA ethics opinions are not binding, "they are generally regarded as . . . highly influential." Kirsten M. Schimpff, Rule 3.8, The Jencks Act, and How the ABA Created a Conflict Between Ethics and the Law on Prosecutorial Disclosure, 61 *Am. U. L. Rev.* 1729, 1759 (2012).

53. See Schimpff, *supra* note 52, at 1737-38 (discussing how Jencks Act permits federal prosecutors to delay disclosure of witness statements). For an argument that the Jencks Act itself conflicts with *Brady*'s timely disclosure requirement, see generally Cara Spencer, Prosecutorial Disclosure Timing: Does *Brady* Trump the Jencks Act?, 26 *Geo. J. Legal Ethics* 997, 1013 (2013).

54. *Brady*, 373 U.S. at 87.

55. For a criticism of the two roles the prosecutor must play, both as zealous advocate and as the person who must "pore through his files" to identify *Brady* material that should be produced to the defense, see *United States v. Bagley*, 473 U.S. 667, 696-97 (1985) (Marshall, J., dissenting).

56. *Bagley*, 473 U.S. at 682 (opinion of Blackmun, J.). This definition of material evidence garnered the support of five justices. See *id.* at 685 (White, J., concurring).

57. See *id.* at 683 (opinion of Blackmun, J.) (suggesting reviewing court assess effect of nondisclosed evidence "in light of the totality of the circumstances").

58. See, e.g., *Kyles v. Whitley*, 514 U.S. 419, 437 (1995) (holding prosecutor must "gauge the likely net effect" of potentially exculpatory evidence in deciding whether to make disclosure).

59. See Green, *Federal Criminal Discovery Reform*, *supra* note 5, at 646 ("One could take the view that . . . prosecutors must disclose *all* favorable evidence in connection with a

lament, the doctrine has not developed in this manner.⁶⁰ Although several courts have notably concluded that *Brady* requires the disclosure of all evidence favorable to the defendant, others instead have contended that *Brady* requires no more than the government's disclosure of "material" exculpatory evidence, thereby narrowing the prosecutor's constitutional obligation.⁶¹

That *Brady* applies primarily to the trial process, a process that most criminals never experience, is an irony not lost on commentators.⁶² *Brady* itself is silent with regard to guilty pleas; lower courts are divided on whether pleading defendants can waive their rights to receive *Brady* material.⁶³ In *United States v. Ruiz*, the Supreme Court affirmed that defendants could validly waive their right to receive *Brady* evidence prior to entering a guilty plea,⁶⁴ but the Court limited its holding primarily to impeachment evidence and left open the question of whether a defen-

trial but that . . . a conviction will not be overturned unless, in hindsight, the withheld evidence was material. Some lower courts read the *Brady* line of cases this way. But most lower courts [do not]." (footnotes omitted)). For a comparison of the various approaches that courts have taken, see Gerard Fowke, Note, Material to Whom?: Implementing *Brady*'s Duty to Disclose at Trial and During Plea Bargaining, 50 Am. Crim. L. Rev. 575, 576 (2013) (describing three different approaches courts take in response to pretrial discovery requests alleged under *Brady*).

60. See Cassidy, *supra* note 5, at 1436 (observing scholarly critique of "conflation of nondisclosure and prejudice" in one single test); Mary Prosser, Reforming Criminal Discovery: Why Old Objections Must Yield to New Realities, 2006 Wis. L. Rev. 541, 566 (critiquing lower courts' interpretation of materiality standard); Sundby, *supra* note 13, at 644 (observing doctrine has become "less of a pre-trial discovery right and more of a post-trial remedy for prosecutorial and law enforcement misconduct").

61. There are many examples of these two approaches. Compare *United States v. Safavian*, 233 F.R.D. 12, 16 (D.D.C. 2005) (requiring prosecutors to disclose all evidence favorable to defense in advance of trial), and *United States v. Sudikoff*, 36 F. Supp. 2d 1196, 1199 (C.D. Cal. 1999) (same), with *United States v. Coppa*, 267 F.3d 132, 135, 140–44 (2d Cir. 2001) (granting writ of mandamus where lower court "erred" in requiring immediate disclosure of "all" exculpatory and impeachment evidence), *United States v. Padilla*, No. CR 09-3598 JB, 2010 WL 4337819, at *5 (D.N.M. Sept. 3, 2010) (criticizing standard in *Sudikoff* because it "would effectively require the government to produce all information rather than conduct a materiality review" and "gets close to civil discovery rather than the standard the American courts have employed since *Brady v. Maryland*"), *United States v. Causey*, 356 F. Supp. 2d 681, 696 (S.D. Tex. 2005) (declining to apply *Sudikoff* and declaring its application represents strong departure from Fifth Circuit's understanding of *Brady*), and *Boyd v. United States*, 908 A.2d 39, 61 (D.C. 2006) (concluding, somewhat reluctantly, "[m]ateriality is an issue at the time that the prosecutor makes a determination regarding what he must disclose"). For scholarly analysis of the two standards, see Schimpff, *supra* note 53, at 1746 & n.96 (concluding broader disclosure requirement mandated by *Sudikoff* and *Safavian* remains "exception" among lower courts).

62. See *Lafler v. Cooper*, 132 S. Ct. 1376, 1388 (2012) ("[C]riminal justice today is for the most part a system of pleas, not a system of trials. Ninety-seven percent of federal convictions and ninety-four percent of state convictions are the result of guilty pleas.").

63. Covey, *supra* note 25, at 601–02 (surveying courts).

64. 536 U.S. 622, 633 (2002).

dant could validly waive the right to receive “substantive evidence” suggesting that he was innocent.⁶⁵

If a court becomes aware of a *Brady* violation prior to conviction, it may exclude government evidence, interrupt the proceedings to provide the defense with the opportunity to cross-examine a witness with newly discovered evidence, inform the jury of the government’s failure to hand over certain evidence, declare a mistrial, or, in rare circumstances, dismiss the government’s indictment with prejudice.⁶⁶ If a *Brady* violation is uncovered in the postconviction phase, the court will ordinarily vacate the conviction and order a new trial,⁶⁷ unless the suppressed evidence was already in the defendant’s possession or otherwise discoverable by his attorney.⁶⁸

One thing *Brady* explicitly does *not* do is promote a generalized constitutional right to criminal discovery.⁶⁹ To the contrary, the Supreme Court has emphasized that “[t]here is no general constitutional right to discovery in a criminal case, and *Brady* did not create one.”⁷⁰ The Court

65. See Covey, *supra* note 25, at 604 (“Significantly, the Court carefully limited its holding to *exculpatory* impeachment evidence and evidence relating to affirmative defenses . . . [and] expressly declined to consider whether the same analysis applies to substantive evidence of factual innocence.”). There may be good reasons to treat substantive exculpatory evidence differently from impeachment evidence. See Cassidy, *supra* note 5, at 1431 (observing term “impeachment” has “almost limitless elasticity” and “impeachment disclosures risk exposing witnesses to harassment, intimidation, and embarrassment before trial”). For a discussion of a developing circuit split on how broadly *Ruiz* applies, see *United States v. Moussaoui*, 591 F.3d 263, 286 (4th Cir. 2010).

66. *United States v. Chapman*, 524 F.3d 1073, 1087 (9th Cir. 2008); see also *United States v. W.R. Grace*, No. CR 05-07-M-DWM, slip op. at 10 (D. Mont. Apr. 28, 2009) (surveying possible responses to government’s failure to hand over exculpatory evidence); Beth Brennan & Andrew King-Ries, *A Fall from Grace: United States v. W.R. Grace and the Need for Criminal Discovery Reform*, 20 *Cornell J.L. & Pub. Pol’y* 313, 320–21 (2010) (discussing outcome in *W.R. Grace* and its implications for discovery reform); Kirk Johnson, *Judge Says Asbestos Case Can Proceed*, *N.Y. Times* (Apr. 27, 2009), <http://www.nytimes.com/2009/04/28/us/28grace.html> (on file with the *Columbia Law Review*) (discussing *W.R. Grace* and *Brady* violations).

67. See *United States v. Tavera*, 719 F.3d 705, 708 (6th Cir. 2013) (“So long as favorable evidence could . . . affect the jury’s decision, prosecutors *must* disclose it . . . [W]hen they fail to do so, courts have a duty to order a retrial, allowing a jury to consider the previously concealed evidence.”). In addition to vacating Tavera’s conviction and remanding the case for a new trial, the Sixth Circuit also recommended that the U.S. Attorney’s Office for the Eastern District of Tennessee investigate the underlying causes of the *Brady* violation. *Id.*

68. For a thorough analysis and critique of what has been called the “defendant due diligence” rule, see Kate Weisburd, *Prosecutors Hide, Defendants Seek: The Erosion of Brady Through the Defendant Due Diligence Rule*, 60 *UCLA L. Rev.* 138, 147–53 (2013).

69. See, e.g., *United States v. Agurs*, 427 U.S. 97, 109 (1976) (rejecting notion that due process clause requires prosecution’s “complete and detailed accounting” of “all police investigatory work on a case” (quoting *Moore v. Illinois*, 408 U.S. 786, 795 (1972)) (internal quotation mark omitted)).

70. *Weatherford v. Bursey*, 429 U.S. 545, 559 (1977).

has shown no sign of diverging from this view.⁷¹

Over the years, scholars and defense practitioners have widely panned *Brady*.⁷² Although *Brady* purported to establish a landmark right to exculpatory evidence, its progeny have severely undermined, in trial and appellate courts, its usefulness to defendants.⁷³

B. *Three Models of Misconduct*

Much of the literature critiquing *Brady* presents an unspoken paradox. On the one hand, the doctrine requires too little of prosecutors, forcing them only to turn over “material” evidence in time for trial. At the same time, stories abound of prosecutors who have either intentionally or negligently withheld material exculpatory evidence, often to the great detriment of defendants who have been wrongfully accused and convicted of serious crimes.⁷⁴ For all its inherent weaknesses and loopholes, *Brady*’s obligation is nevertheless tough enough that it inspires deliberate misconduct and reckless behavior.

The bulk of *Brady* scholarship explains this misconduct through the use of one of three models: the “bad agent” prosecutor who favors himself at the expense of the citizen public; a boundedly rational prosecutor who cannot see the cracks in his case; or a dysfunctional, resource-deprived bureaucrat unable to perform his job.

1. *The Bad Agent*. — The rational-actor model views prosecutors as untrustworthy agents of the public; these “bad agents” favor their own personal and professional goals over the public’s interest in securing justice. Prosecutors are thus like any other group of bad agents who subvert the wishes of their principals,⁷⁵ and *Brady* violations represent simply

71. See, e.g., *United States v. Ruiz*, 536 U.S. 622, 631–32 (2002) (citing government’s interest in protecting witnesses and preventing disruption of ongoing investigation); *Pennsylvania v. Ritchie*, 480 U.S. 39, 59 (1987) (distinguishing “right to discover exculpatory evidence” from ability to “search through the Commonwealth’s files”); cf. *Kaley v. United States*, 134 S. Ct. 1090, 1101 (2014) (describing risks likely to arise if defendant were granted, through forfeiture hearing, “sneak preview” of government’s case).

72. See, e.g., Susan A. Bandes, *The Lone Miscreant, The Self-Training Prosecutor and Other Fictions: A Comment on Connick v. Thompson*, 80 *Fordham L. Rev.* 715, 730–33 (2011) (criticizing *Brady* and lack of enforcement mechanism against offices that encourage prosecutors to withhold exculpatory evidence); Bennett L. Gershman, *Litigating Brady v. Maryland: Games Prosecutors Play*, 57 *Case W. Res. L. Rev.* 531, 531–34 (2007) [hereinafter Gershman, *Games Prosecutors Play*] (arguing inconsistent judicial enforcement of *Brady* rule encourages prosecutors to engage in gamesmanship); Medwed, *Brady’s Bunch of Flaws*, *supra* note 8, at 1539–44 (discussing evidentiary issues posed by *Brady* materiality test).

73. See, e.g., Weisburd, *supra* note 68, at 163–64 (asserting lower courts use defendant-due-diligence rule to defeat *Brady* claims).

74. See, e.g., Daniel Medwed, *Prosecution Complex* 37 (2012) [hereinafter Medwed, *Prosecution Complex*] (contending *Brady* violations “take place with regularity”).

75. See John Armour et al., *Agency Problems and Legal Strategies, in The Anatomy of Corporate Law: A Comparative and Functional Approach* 35, 35 (Reinier Kraakman et

another species of “agency costs” wherein the agent cheats in order to improve performance metrics and retain her job.⁷⁶ Among criminal procedure scholars, Professor Stephanos Bibas has been most explicit in employing the agency-cost literature to explain prosecutorial (mis)conduct.⁷⁷ As Professor Bibas explains, “[P]rosecutors want to ensure convictions. They may further their careers by racking up good win–loss records Favorable win–loss statistics boost prosecutors’ egos, their esteem, their praise by colleagues, and their prospects for promotion and career advancement.”⁷⁸

Under this framework, withholding exculpatory evidence from the defense is just one more way in which the “bad agent” prosecutor harms his “principal,” the general public.⁷⁹ The familiar criticism that prosecutors are “overzealous” therefore becomes another way of saying that self-interested prosecutors favor maximal convictions and sentences at the expense of accuracy and notions of just punishment.⁸⁰

al. eds., 2d ed. 2009) (“[A]n ‘agency problem’—in the most general sense of the term—arises whenever the welfare of one party, termed the ‘principal,’ depends upon actions taken by another party, termed the ‘agent.’”).

76. For the seminal paper in the corporate context, see Jennifer H. Arlen & William J. Carney, *Vicarious Liability for Fraud on Securities Markets: Theory and Evidence*, 1992 U. Ill. L. Rev. 691, 694 (demonstrating how securities fraud is type of corporate agency cost).

77. See Stephanos Bibas, *Prosecutorial Regulation Versus Prosecutorial Accountability*, 157 U. Pa. L. Rev. 959, 963 (2009) [hereinafter Bibas, *Prosecutorial Regulation*] (“Prosecutors are agents who imperfectly serve their principals (the public) and other stakeholders (such as victims and defendants). This agency-cost problem resembles corporate employees’ temptation to shirk or serve their self-interests at the expense of shareholders, customers, competitors, and other stakeholders.”); see also Stephanos Bibas, *The Machinery of Criminal Justice*, at xix (2012) [hereinafter Bibas, *Machinery*] (“Lawyers are agents who are supposed to serve their principals: prosecutors are supposed to represent the public’s and victims’ interests in justice But lawyers . . . tend to focus on quantifiable benefits.”).

78. Stephanos Bibas, *Plea Bargaining Outside the Shadow of Trial*, 117 Harv. L. Rev. 2464, 2471–72 (2004) [hereinafter Bibas, *Plea Bargaining*]. Although Professor Bibas refers to the plea-bargaining process in general, the same conflict explains the prosecutor’s noncompliance with *Brady* and other discovery obligations.

79. For additional examples, see Bibas, *Machinery*, supra note 77, at 32–33. The notion of the prosecutor as an imperfect “agent” of its “principal,” the public, is not new. See, e.g., Stephen J. Schulhofer, *Plea Bargaining as Disaster*, 101 Yale L.J. 1979, 1987 (1992) (“The real parties in interest (the public and the defendant) are represented by agents (the prosecutor and defense attorney) whose goals are far from congruent with those of their principals.”).

80. See Barkow, supra note 15, at 2091 (“The adversary system places a premium on winning, and prosecutors are hardly exempt from the pressure to win.”). Scholars have long debated what prosecutors “maximize,” particularly with regard to plea bargaining. See, e.g., William M. Landes, *An Economic Analysis of the Courts*, 14 J.L. & Econ. 61, 63 (1971) (presuming prosecutor’s preference is “to maximize the expected number of convictions weighted by their respective [sentences] . . . subject to a constraint on the resources or budget available to his office”); Daniel C. Richman, *Old Chief v. United States: Stipulating Away Prosecutorial Accountability?*, 83 Va. L. Rev. 939, 966–67 (1997)

Ironically, excessive zeal arises out of the public's efforts to combat zeal's logical opposite, "shirking."⁸¹ If the overzealous prosecutor harms the public by doing too much, the shirking prosecutor harms the public by doing too little, favoring her own leisure over society's interest in solving and reducing crime.⁸² Shirking can arise when the principal sets the agent's compensation modestly and without regard to performance. To counteract this problem, the public elects and appoints politically ambitious head prosecutors, who seek high conviction rates and notable trial victories.⁸³ Head prosecutors, in turn, select lower-level "line" prosecutors who are also ambitious, enjoy adversarial interaction, and embrace the government's law-and-order ethos.⁸⁴ People who derive pleasure and utility from winning cases and jailing criminals are not likely to balk at spending late nights in the office preparing for trial, even if they otherwise receive modest salaries and benefits.⁸⁵

As the foregoing discussion demonstrates, agency costs pose vexatious issues for policymakers. Mechanisms designed to reduce shirking simultaneously increase the risk of opportunistic behavior.⁸⁶ As several law-and-economics scholars have observed in regard to overly punitive

[hereinafter Richman, Stipulating Away] (conceding "need to maximize convictions will be an inescapable environmental constraint" on prosecutors); Schulhofer, *supra* note 79, at 1987–88 (identifying interests of "chief" prosecutor as enhancing political standing and "front-line" prosecutors as maximizing their own welfare).

81. Within this Article, "shirking" refers to the kind of conduct laypersons might refer to as slacking off. Within the corporate agency-cost literature, shirking comprises "any action by a member of a production team that diverges from the interests of the team as a whole." Stephen M. Bainbridge, *The New Corporate Governance in Theory and Practice* 73 n.94 (2008).

82. Bibas, *Machinery*, *supra* note 77, at 32–33 ("The sooner each pending case goes away, the earlier the lawyer or judge can go home to dine with friends and family.").

83. Some prosecutors may derive intrinsic pleasure from punishing others. For an analysis of how "altruistic punishment" affects the police, see Dhammika Dharmapala et al., *Punitive Police? Agency Costs, Law Enforcement, and Criminal Procedure* 17 (Ill. Pub. Law & Legal Theory Research Papers Series, No. 13-47, 2013), available at <http://ssrn.com/abstract=2278597> (on file with the *Columbia Law Review*). For more on altruistic punishment, see Ernst Fehr & Simon Gächter, *Altruistic Punishment in Humans*, 415 *Nature* 137, 137–39 (2002) (positing altruistic punishment of free riders prompts humans to cooperate even in situations where defection would maximize individual's benefit); see also Paul H. Robinson, *Natural Law and Lawlessness: Modern Lessons from Pirates, Lepers, Eskimos and Survivors*, 2013 *U. Ill. L. Rev.* 433, 458–59 (describing instances in which groups took time and effort to punish others, despite substantial costs involved in implementing punishment).

84. Cf. Dharmapala et al., *supra* note 83, at 3 ("Our specific claim is that individuals with relatively intense intrinsic motivations for punishment will self-select into . . . policing.").

85. *Id.* at 4 (observing, when agents derive intrinsic "utility from doing their jobs," they will accept lower wage and may be less likely to ignore wrongdoing in exchange for outside bribes).

86. For example, police who are particularly "punitive" may "operate with a lower threshold of doubt for convicting suspects." *Id.*

police departments: “[I]n contrast to the problem of shirking . . . the agency problem here is likely to include the problem of *excessive zeal*.”⁸⁷

Taken together the rational-actor and agency-cost theories present an elegant and intuitive model. By design, however, the model declines to incorporate organizational variables such as office structure, level of experience, or case volume and resources.⁸⁸ Nor does it explain why *Brady* violations occur in some instances but not others. Presumably *all* prosecutors in *most* offices retain incentives to hide evidence and engage in corrupt practices, but few observers would contend that *all* prosecutors, in all positions and across all jurisdictions, are uniformly bad agents.⁸⁹ Accordingly, we need additional explanations.

2. *The Boundedly Rational Prosecutor*. — The behavioral-psychology model also portrays the prosecutor as an imperfect agent, but attributes her mistakes to cognitive bias. Reformers who draw upon this literature contend that the average prosecutor is “boundedly rational”: Through years of experience and interaction with victims and policing institutions, she develops a form of tunnel vision that disables her from recognizing deficiencies in the case.⁹⁰ Additional cognitive mistakes, such as confirmation and status quo biases, cause her to adhere to just one version of events and to ignore or disclaim the importance of conflicting pieces of evidence, ultimately causing her to withhold information from the defense.⁹¹ Under this narrative, the prosecutor withholds evidence either

87. *Id.*

88. For a sophisticated analysis of three different offices and how their structures and employees’ prior experience affect prosecutorial decisionmaking, see Kay L. Levine & Ronald F. Wright, *Prosecution in 3-D*, 102 *J. Crim. L. & Criminology* 1119, 1121–24 (2012).

89. The rational-actor narrative also fails to explain why prosecutors hide evidence in white-collar and corporate criminal cases. See, e.g., *United States v. Sedaghaty*, 728 F.3d 885, 892 (9th Cir. 2013) (documenting withholding of substantial impeachment evidence in tax prosecution); Smith, *supra* note 18, at 87–90 (citing instances of “willful” nondisclosure, including federal prosecutions of Ted Stevens and W.R. Grace). If a prosecutor is rational, she ought to be more wary of hiding evidence when her opponents are more sophisticated and therefore more likely to uncover her misbehavior.

90. See, e.g., Alafair S. Burke, *Improving Prosecutorial Decision Making: Some Lessons of Cognitive Science*, 47 *Wm. & Mary L. Rev.* 1587, 1603–12 (2006) [hereinafter Burke, *Improving Prosecutorial Decision Making*] (characterizing prosecutorial decision-making as “simply one application of the widespread cognitive phenomenon of confirmation bias”); Keith A. Findley & Michael S. Scott, *The Multiple Dimensions of Tunnel Vision in Criminal Cases*, 2006 *Wis. L. Rev.* 291, 351 (“[C]ognitive biases make it unlikely that prosecutors . . . can envision a different outcome or appreciate the value of the withheld evidence . . .”); Daniel S. Medwed, *The Zeal Deal: Prosecutorial Resistance to Post-Conviction Claims of Innocence*, 84 *B.U. L. Rev.* 125, 140 (2004) (“A prosecutor . . . may struggle to accept the possibility that he convicted an innocent man, not to mention that a guilty person may remain at large.”).

91. See, e.g., Bandes, *supra* note 72, at 731 (elaborating on prosecutorial tunnel vision as problematic form of cognitive bias); Findley & Scott, *supra* note 90, at 395 (explaining factors that limit prosecutors’ ability to consider defendant’s innocence). For

because she genuinely believes the evidence is not exculpatory or because she thinks that she is serving some greater good by ignoring *Brady's* command.⁹²

The behavioral-economics literature prescribes two remedies for cognitive bias. The first reduces bias by delegating decisionmaking to a more neutral (or sophisticated) decisionmaker.⁹³ The second attempts to “debias” the decisionmaker of the various heuristics and cognitive mistakes that undermine her abilities.⁹⁴ Thus, scholars such as Professor Alafair Burke have argued that the Supreme Court should impose a prophylactic full-disclosure discovery rule on prosecutors because prosecutors as a group cannot be trusted to sort exculpatory evidence from the rest of the file.⁹⁵ Short of this rule, Professor Burke suggests debiasing techniques for prosecutors’ offices, whereby prosecutors would be made aware of their tendency to adopt “tunnel vision” or engage in confirmation bias and then would be asked to engage in a series of exercises designed to reduce such bias.⁹⁶

The bounded-rationality model has its limitations. To begin with, a recent study undertaken by Professors Ronald Wright and Kay Levine suggests that veteran prosecutors may be *less* hardened than their younger counterparts.⁹⁷ If their study is indicative of a larger phenome-

a general discussion of the status quo bias and how it affects decisionmaking, see Adam S. Zimmerman, *Funding Irrationality*, 59 *Duke L.J.* 1105, 1134–42 (2010).

92. For application of this dynamic to police officers, see Anthony Bottoms & Justice Tankebe, *Beyond Procedural Justice: A Dialogic Approach to Legitimacy in Criminal Justice*, 102 *J. Crim. L. & Criminology* 119, 154 (2012) (describing “noble cause corruption” as kind of reasoning wherein police officers “subscribe to the view that it is appropriate to manufacture evidence against a suspect because ‘he is clearly guilty anyway’”); Randall Grometstein & Jennifer M. Balboni, *Backing Out of a Constitutional Ditch: Constitutional Remedies for Gross Prosecutorial Misconduct Post *Thompson**, 75 *Alb. L. Rev.* 1243, 1244–65 (2012) (applying noble-cause-corruption theory to prosecutors).

93. See Christine Jolls & Cass R. Sunstein, *Debiasing Through Law*, 35 *J. Legal Stud.* 199, 200 (2006) (“Boundedly rational behavior might be, and often is, taken to justify a strategy of insulation, attempting to protect legal outcomes from people’s bounded rationality.”).

94. See *id.* (“[L]egal policy may respond best to problems of bounded rationality not by insulating legal outcomes from its effects, but instead by operating directly on the boundedly rational behavior and attempting to help people either to reduce or to eliminate it.”).

95. Burke, *Improving Prosecutorial Decision Making*, *supra* note 90, at 1630–31.

96. *Id.* at 1616–20. Professor Burke envisions a regime requiring the prosecutor to generate competing plausible explanations for each piece of evidence. *Id.* at 1620. However reasonable Professor Burke’s debiasing exercise may sound in theory, it is difficult to envision its implementation, particularly in a large, case-intensive jurisdiction.

97. See Ronald F. Wright & Kay L. Levine, *The Cure for Young Prosecutors’ Syndrome 3* (Emory Legal Stud. Research Paper Series, Research Paper No. 14-277, 2014), available at <http://ssrn.com/abstract=2405137> (on file with the *Columbia Law Review*) (discussing results of interviews and surveys conducted between 2010 and 2013 of over 200 state prosecutors in eight offices across southeast and southwest United States). Professors Wright and Levine conclude, “Our data lead us to a striking conclusion: unlike police

non, it undermines the tunnel-vision claim. Moreover, bounded rationality cannot possibly explain why some prosecutors disclose exculpatory evidence, reduce charges, and dismiss cases when appropriate.⁹⁸ If bounded rationality causes noncompliance, why is it that some prosecutors and some offices “bend over backwards to comply”?⁹⁹ Surely, other factors play a role.

3. *The Dysfunctional Bureaucrat*. — The third and final model casts blame on the prosecutor’s office: a resource-deprived and often dysfunctional bureaucracy that encourages and presides over a host of ills, including its prosecutors’ repeated and systematic failures to identify and disclose exculpatory evidence in advance of trial. The model envisions a prosecutor who is harried and lacks resources, or young and inexperienced, or simply untrained in the practical methods of securing evidence from multiple agencies, all while abiding by the legal obligations imposed by state or federal law.¹⁰⁰

Professors Adam Gershowitz and Laura Killinger recently fleshed out this model in citing the drawbacks of large caseloads for prosecutors:

The overarching story is fairly simple: when prosecutors carry excessive caseloads, they handle them in a triage fashion. Prosecutors do not look ahead to cases that will come to a boil in weeks or months; they live in the here and now. If evidence is lurking in a case file that will ultimately lead to a defendant’s case being dismissed, it will linger there until the prosecutor has time to focus on the matter.¹⁰¹

Professor Ellen Yaroshfsky’s survey of multiple prosecutors’ offices across several jurisdictions confirms the portrait painted by Professors Gershowitz and Killinger: “High caseloads and underfunding, notably in large urban jurisdictions, create an environment with insufficient docu-

officers, state prosecutors ordinarily portray themselves as becoming more balanced, rather than more hardened, over time.” *Id.* As the authors themselves concede, the study demonstrates only that older prosecutors perceive themselves as becoming less hardened with age; it does not establish with empirical certainty that they are actually less hardened or in fact behave that way. *Id.* at 48–50.

98. For an interesting study attempting to distinguish wrongful-conviction cases from near misses, see generally Jon B. Gould et al., *Predicting Erroneous Convictions*, 99 *Iowa L. Rev.* 471, 477 (2014) (identifying *Brady* violations as one factor predicting wrongful convictions).

99. Medwed, *Prosecution Complex*, *supra* note 74, at 36 (conceding “most” prosecutors and their offices “strive” to comply with *Brady*).

100. See, e.g., *New Perspectives on Brady*, *supra* note 6, at 1985 (“Heavy workloads and inadequate training and supervision can exacerbate the danger, especially for young lawyers and for those with no or no recent defense experience.”); Prosser, *supra* note 60, at 552–53, 569 (“Many prosecutors are young and inexperienced . . .”).

101. Adam M. Gershowitz & Laura R. Killinger, *The State (Never) Rests: How Excessive Prosecutorial Caseloads Harm Criminal Defendants*, 105 *Nw. U. L. Rev.* 261, 286 (2011).

mentation of witness statements, failure to follow up on police evidence, and lack of attention to items of evidentiary value.”¹⁰²

The problem extends beyond having enough time to review one’s files. Limited resources mean that prosecutors and investigators must constantly cut corners and spend less time checking sources and confirming the reliability of evidence.¹⁰³ Limited resources leave supervisors and chief prosecutors with fewer opportunities for formal training, which in turn leaves prosecutors less able to identify and comply with statutory and constitutional obligations.¹⁰⁴

A variant of this narrative is that some prosecutors lack the requisite experience and savvy to recognize and disclose exculpatory evidence. Accordingly, even when she has time to focus on a case, the young and inexperienced prosecutor misunderstands her legal obligations and lacks the institutional knowledge necessary to secure evidence from the various law-enforcement agencies that have worked on the case.¹⁰⁵

Like the other two models, the bureaucratic-dysfunction model provides a useful but incomplete portrait of *Brady* noncompliance. Bureaucratic dysfunction surely explains some delays, but it does not explain intentional nondisclosures of evidence. Moreover, the “inexperienced prosecutor” theory is problematic. To date, no empirical study has established that *Brady* violations cluster among younger prosecutors, and the more recent and celebrated cases of *Brady* noncompliance (for example, the prosecution of Senator Ted Stevens for making false statements on financial-disclosure forms) included a number of mid- and senior-level prosecutors and supervisors.¹⁰⁶

102. Ellen Yaroshesky, *Why Do Brady Violations Happen?: Cognitive Bias and Beyond*, *Champion*, May 2013, at 12, 13 [hereinafter Yaroshesky, *Why Do Brady Violations Happen?*], available at <http://www.nacdl.org/Champion.aspx?id=28470> (on file with the *Columbia Law Review*).

103. See Brown, *Criminal Adjudication*, supra note 1, at 1604 (“[R]esource constraints prompt [police and prosecutors] to shortchange investigations in other ways: interviewing some but not all witnesses; using quicker eyewitness identification procedures rather than burdensome but more reliable ones; employing unofficial informers (often with criminal records) rather than undercover law enforcement officers . . .”).

104. See *id.* at 1604–05 (“[A] range of evidence-gathering practices reflect compromises with cost constraints. Investigators may not get necessary training, prosecutors may skip forensic analysis, and police may avoid the trouble and expense of taping undercover officers and informants or interrogations of suspects.”).

105. See Gershman, *Games Prosecutors Play*, supra note 72, at 545–46 (“[I]t is reasonable to expect that some prosecutors, particularly those who are young and inexperienced, may not press the more experienced police agents too hard [for evidence].”). But see Daniel Richman, *Prosecutors and Their Agents, Agents and Their Prosecutors*, 103 *Colum. L. Rev.* 749, 816–18 (2003) [hereinafter Richman, *Prosecutors and Their Agents*] (contending *Brady* empowers prosecutor to demand information from recalcitrant agents).

106. See Bennett L. Gershman, *Subverting Brady v. Maryland and Denying a Fair Trial: Studying the Schuelke Report*, 64 *Mercer L. Rev.* 683, 696–97 (2013) (describing backgrounds and experience of prosecutors who participated in criminal trial of Senator Ted

C. *Conventional Reforms*

The three explanations for wrongdoing discussed in the previous section dominate the criminal justice reform literature. Scholars either explicitly or implicitly draw from one or more of them when formulating *Brady*-related reforms.¹⁰⁷ Although the specific proposals for reform vary, they tend to fall within three categories: (1) expanding the scope of materials included in the prosecutor's discovery obligation, (2) increasing the likelihood and degree of sanctions for noncompliance, and (3) improving the internal processes and organizational dynamics of the offices in which prosecutors work. A brief survey of each follows.

1. *Scope*. — As noted by Professor Dan Simon, a growing number of states, including Arizona, Colorado, New Jersey, and North Carolina now require prosecutors to provide some form of “open-file” discovery.¹⁰⁸ An open-file regime typically requires the prosecutor to disclose both her own investigatory files and those belonging to the investigatory agencies that have assisted with the case.¹⁰⁹

Open-file discovery permits earlier and more detailed disclosure of information contained in the prosecutor's files. Under a narrower discovery scheme, such as the one found in federal jurisdictions, the government need not hand over much more than the defendant's own statements, prior criminal record, and any evidence the prosecution intends to offer in support of its affirmative case at trial.¹¹⁰ By contrast, under a “full” open-file regime, the prosecutor must disclose all relevant information—other than documents excluded by statute or protected by a court—that is contained in the prosecutor's file.¹¹¹ Moreover, open-file

Stevens). The study conducted by Professors Wright and Levine does suggest that younger prosecutors may be more “aggressive” than their older counterparts, but the study focuses solely on the survey participants' views of themselves as adversaries. Wright & Levine, *supra* note 97, at 60. It neither addresses nor establishes the existence of actual *Brady* violations.

107. Professor Bibas's work, for example, draws on all three models. See generally Bibas, *Plea Bargaining*, *supra* note 78 (exploring agency costs, bounded rationality, and organizational influences on prosecutors).

108. See, e.g., Dan Simon, *More Problems with Criminal Trials: The Limited Effectiveness of Legal Mechanisms*, 75 *Law & Contemp. Probs.*, no. 2, 2012, at 167, 208–09 (recounting increase in amount of more generous discovery systems throughout various states).

109. Short of open-file discovery, some proposals would require prosecutors to hand over “all” exculpatory evidence immediately, as required by Rule 3.8(d) of the Model Rules of Professional Conduct.

110. See Green, *Federal Criminal Discovery Reform*, *supra* note 5, at 644 (“Before trial, the government has no obligation to tell the defense with whom the prosecution has spoken, who has relevant testimony, or who the prosecution will call as witnesses.”); see also 18 U.S.C. § 3500(a)–(c) (2012) (requiring prosecution to turn over witness statements only after witness has testified at trial, and only statements directly relevant to trial testimony); Fed. R. Crim. P. 16(a) (stating disclosure requirements for prosecution).

111. See generally 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, 259–60 (2008) [hereinafter Mosteller, *Exculpatory Evidence*]

discovery theoretically promises earlier disclosure of relevant materials, insofar as the defendant is no longer dependent on a prosecutor to identify and disclose materials that are either exculpatory or fall within legislatively defined categories. If the jurisdiction's rules require the prosecutor to disclose the "entire file," the defendant no longer need await someone's review of the file to determine what is and is not exculpatory.¹¹²

Prosecutors' offices differ in how "open" their files actually are.¹¹³ At one extreme, the state of North Carolina requires prosecutors to disclose all information obtained during a criminal investigation, including reports of witness interviews.¹¹⁴ Other states, however, exclude from discovery the prosecutor's work product or offer an informal version of the open-file system, whereby the files are provided solely as a matter of prosecutorial courtesy and not by any enforceable law.¹¹⁵ Those states that currently employ the open-file system often permit prosecutors to seek protective orders to withhold the identities of witnesses and cooperating defendants.¹¹⁶

Despite the fact that the Federal Rules of Criminal Procedure impose weak discovery obligations on government prosecutors, some U.S. Attorneys' Offices have voluntarily adopted open-file discovery, although here too, it is unclear just how "open" their procedures actually are.¹¹⁷ In any event, open-file discovery is fully voluntary among U.S. Attorneys' Offices and has not been enthusiastically embraced by the Department of Justice.¹¹⁸

(examining three disciplinary actions brought by North Carolina State Bar and North Carolina criminal discovery reforms). One must consult the relevant statute to learn whether the "file" includes only the prosecutor's file or the files of all relevant investigative agencies. On the potential differences between various types of files, see Ion Meyn, *Discovery and Darkness: The Information Deficit in Criminal Disputes*, 79 *Brook. L. Rev.* 1091, 1092–93 (2014).

112. Of course, whether the defendant receives the "entire file" far in advance or closer to a trial date will depend on the procedures set forth in a jurisdiction's relevant discovery rules. See *infra* Part III.D.1 (discussing impact of setting date of first disclosure on defendant's access to information).

113. See Yaroshefsky, *Why Do Brady Violations Happen?*, *supra* note 102, at 12 (describing results of interviews with "35 current and former state prosecutors" and concluding "[m]any offices had some version of an open-file discovery policy, but their definitions varied considerably").

114. Moore, *supra* note 41, at 1332–33; see also Mosteller, *Exculpatory Evidence*, *supra* note 111, at 263–65 (discussing impact of open-file statute on review of Alan Gell's conviction).

115. See Prosser, *supra* note 60, at 593–94 (describing variations among informal discovery procedures).

116. Medwed, *Brady's Bunch of Flaws*, *supra* note 8, at 1560.

117. See Prosser, *supra* note 60, at 593 (referring to surveys of federal prosecutors adopting significant percentage adopted open-file policy).

118. See, e.g., Ellen S. Podgor, *Criminal Discovery of Jencks Witness Statements: Timing Makes a Difference*, 15 *Ga. St. U. L. Rev.* 651, 690 (1999) ("[J]udges do not have

Reformers have advanced two sets of arguments for open-file discovery. The first is that broader discovery prophylactically ensures disclosure of exculpatory evidence.¹¹⁹ By stripping the prosecutor of the discretion to review and withhold evidence, open-file discovery places exculpatory information within the defense attorney's control.¹²⁰ Moreover, it denies the prosecutor the ability to mask her intentional nondisclosures as merely "innocent" or unintentional mistakes.¹²¹ Accordingly, the broad discovery rule ensures that the defendant receives the quantum of evidence to which she is constitutionally entitled, and then some.¹²²

Other reformers contend that criminal defendants deserve access to all of the prosecutor's materials, period.¹²³ Under this lens, open-file discovery is not simply a prophylactic measure, but instead a prerequisite for a fair criminal justice system.¹²⁴ Through the unquestioned disclosure of information, broad access levels the so-called playing field between powerful prosecutors and weakened defense counsel, and thereby

the power to order the release of *Jencks* material prior to the mandates of 18 U.S.C. § 3500 and Rule 26.2 of the Federal Rules of Criminal Procedure.”). A 2010 memo to federal prosecutors from Deputy Attorney General David Ogden advises: “Prosecutors should never describe the discovery being provided as ‘open file.’ Even if the prosecutor intends to provide expansive discovery, it is always possible that something will be inadvertently omitted from production and the prosecutor will then have unintentionally misrepresented the scope of materials provided.” Memorandum from David W. Ogden, Deputy Attorney Gen., U.S. Dep’t of Justice, to Dep’t Prosecutors (Jan. 4, 2010) [hereinafter Ogden Memo], available at <http://www.justice.gov/dag/memorandum-department-prosecutors> (on file with the *Columbia Law Review*).

119. See Alafair S. Burke, *Revisiting Prosecutorial Disclosure*, 84 Ind. L.J. 481, 509–10 (2009) [hereinafter Burke, *Revisiting Prosecutorial Disclosure*] (comparing proposed “prophylactic disclosure rule” to Supreme Court’s *Miranda* decision and arguing rule is justified on similar grounds); Ellen Yaroshefsky, *New Orleans Prosecutorial Disclosure in Practice After Connick v. Thompson*, 25 Geo. J. Legal Ethics 913, 919 (2012) [hereinafter Yaroshefsky, *New Orleans Prosecutorial Disclosure*] (observing broad criminal discovery statutes are likely to reduce *Brady* violations but most district attorneys’ offices fail to implement them).

120. For more on motivated reasoning and how it causes actors to justify their conduct as appropriate or legal, see Donald C. Langevoort, *Getting (Too) Comfortable: In-House Lawyers, Enterprise Risk, and the Financial Crisis*, 2012 Wis. L. Rev. 495, 512–14 (citing psychology literature establishing people “tend to see what we want to see”).

121. Lawmakers adopt similar strategies in articulating criminal prohibitions. See Samuel W. Buell, *The Upside of Overbreadth*, 83 N.Y.U. L. Rev. 1491, 1494 (2008) (“If an actor takes steps to thwart the state from applying a rule to the actor, the state may face a choice of either abandoning pursuit of the actor or expanding the rule to reverse the effects of the actor’s thwarting behavior, producing overbreadth in the rule.”).

122. See Burke, *Revisiting Prosecutorial Disclosure*, supra note 119, at 512 (“A prophylactic rule requiring disclosure of all favorable evidence has a close nexus to a defendant’s core right under due process to receive material exculpatory evidence and therefore has relatively few costs.”).

123. See Moore, supra note 41, at 1372 (“Providing defendants with information obtained through government’s superior investigative resources levels the playing field.”).

124. *Id.* at 1334 (contending open-file discovery should be a “prerequisite . . . for improving efficiency, fairness, and finality in the resolution of criminal cases”).

improves the defendant's ability to secure a fairer and more accurate outcome.¹²⁵

This level-the-playing-field argument often includes comparisons of criminal to civil discovery, where parties liberally disclose information in advance of any adjudicative proceeding.¹²⁶ If the civil *plaintiff*, who seeks primarily the payment of money, must share his evidence in advance of a trial, then surely the *prosecutor*, who seeks the defendant's loss of liberty or life, ought to suffer the same obligations.¹²⁷

The above imbalance grows stronger when one considers that most defendants plead guilty and therefore skip the information-forcing benefits of a criminal trial.¹²⁸ Criminal defendants often know less about the government's case than the government itself, and their only means for determining the weakness of the government's case is by proceeding to trial.¹²⁹ Since most defendants lack the resources and fortitude to seek this option, criminal discovery's information asymmetry severely undermines the integrity and reliability of the plea-bargaining process.¹³⁰

Professor Darryl Brown has written quite eloquently about the effective contraction in adjudicative protection for innocent defendants and how that contraction supports the argument for broader discovery rights.¹³¹ To balance the risk of abuse by zealous prosecutors and resource-deprived defense attorneys, defendants require enhanced tools to investigate the government's case and challenge its allegations.¹³²

125. *Id.* at 1372. Interestingly, this strand of argument in defense of broad discovery is inconsistent with the “dysfunctional bureaucrat” theory of *Brady* noncompliance. See supra Part I.B.3 (describing “dysfunctional bureaucrat” model).

126. See Green, Federal Criminal Discovery Reform, supra note 5, at 643–44 (comparing civil and criminal discovery); see also The Justice Project, supra note 20, at 1 (arguing difference between two systems is as “nonsensical as it is unjust”).

127. See, e.g., Prosser, supra note 60, at 581 (“In general, the rules for discovery in criminal cases where liberty, or even life, is at stake stand in stark contrast to rules governing civil cases.”).

128. See, e.g., Bibas, Plea Bargaining, supra note 78, at 2466 & n.9 (citing authorities demonstrating plea bargains “resolve most adjudicated criminal cases”). See generally Marc Galanter, The Vanishing Trial: An Examination of Trials and Related Matters, 1 J. Empirical Legal Stud. 459, 459 (2004) (documenting steady decline of all trials, both civil and criminal, across state and federal jurisdictions).

129. See, e.g., Bibas, Plea Bargaining, supra note 78, at 2495 (arguing lack of information leaves defendants pleading “blindfolded”).

130. See, e.g., *id.* at 2494–96 (arguing system creates information deficits that disadvantage defendants); Klein, Enhancing the Judicial Role, supra note 25, at 2043–48 (discussing discovery deficits in advance of pleading and how changes to Federal Rule of Criminal Procedure 16 would alleviate these deficits).

131. See Brown, Criminal Adjudication, supra note 1, at 1613 (“[E]very major component of criminal adjudication compromises fact-finding to serve competing commitments to government restraint, efficient case disposition, and law enforcement effectiveness.”).

132. See *id.* at 1624 (“[B]road discovery partially compensates for restricted defense counsel; it helps make up for the deficiency in adversary process of constrained defense advocacy.”).

Although Professor Brown himself advances tools beyond open-file discovery, his argument roundly supports disclosure rules much broader than those currently in place in federal and other jurisdictions.¹³³

2. *Sanctions*. — Whereas reformers have enjoyed notable success in expanding criminal discovery's scope, they have enjoyed far fewer victories in increasing the likelihood and degree of sanctions for nondisclosures of *Brady* material.¹³⁴

Under *Imbler v. Pachtman*, prosecutors who withhold *Brady* material are completely shielded from civil liability for constitutional-tort claims.¹³⁵ Absolute immunity also shields their supervisors from claims premised on poor training or oversight.¹³⁶ Although prosecutors enjoy immunity, the municipality that employs them may be sued for *Brady* violations where those violations arise out of a formal policy or custom of withholding evidence.¹³⁷ Few government officials, however, are brazen enough to articulate a policy of ignoring or withholding *Brady* evidence. Demonstrating an informal but widely held custom is also difficult.

Technically, municipalities can be held liable for failing to train prosecutors in recognizing their *Brady* obligations; a recent Supreme Court decision, however, appears to have narrowed that avenue of relief.¹³⁸ In a divided 5–4 decision in *Connick v. Thompson*, the Supreme Court declared that a *Brady* violation was not the kind of violation so “obvious” that it should trigger liability for a single violation.¹³⁹ Moreover, the majority opinion went on to opine that disparate types of *Brady* violations (e.g., withholding forensic evidence in one case while failing to disclose an agreement with a cooperating witness in another) would not satisfy the pattern requirement.¹⁴⁰ Finally, in a concurring opinion, Justice Scalia

133. Professor Brown advocates a number of reforms, including judicial review of the prosecutor's file. *Id.* at 1624–25.

134. See Yaroshfsky, *New Orleans Prosecutorial Disclosure*, *supra* note 119, at 920 (“Nationally, the lack of accountability for prosecutorial misconduct—either through disciplinary systems, court sanctions, or civil liability—is glaring, and a topic of ongoing concern.”).

135. 424 U.S. 409, 427–28 (1976).

136. *Van de Kamp v. Goldstein*, 555 U.S. 335, 338–39 (2009). For criticisms of this opinion, see Erwin Chemerinsky, *Head in the Sand over Prosecutorial Misconduct*, *Nat'l L.J.* (Apr. 25, 2011), <http://www.nationallawjournal.com/id=1202491215314/Head-in-the-sand-over-prosecutorial-misconduct> (on file with the *Columbia Law Review*) (“The result [of recent Supreme Court opinions] is no compensation for wronged individuals and a lack of adequate deterrence of prosecutorial misconduct.”).

137. See, e.g., *Monell v. Dep't of Soc. Servs.*, 436 U.S. 658, 690 (1978) (“Local governmental bodies . . . can be sued directly . . . where . . . the action that is alleged to be unconstitutional implements or executes a policy statement, ordinance, regulation, or decision officially adopted and promulgated by that body's officers.”).

138. *Connick v. Thompson*, 131 S. Ct. 1350, 1356, 1359–60 (2011).

139. *Id.* at 1361–66.

140. *Id.* at 1360. Professor Jennifer Laurin argues that this portion of the Court's opinion was, at best, “classic dicta.” Jennifer E. Laurin, *Prosecutorial Exceptionalism, Remedial Skepticism, and the Legacy of Connick v. Thompson* 18 (Univ. of Tex. Sch. of Law Pub. Law

warned that even where such a pattern existed, the defendant would also be required to demonstrate that the lapse in training actually *caused* an individual prosecutor to withhold evidence.¹⁴¹ Not surprisingly, the outlook for future litigants in this area can best be described as grim.¹⁴²

Notwithstanding the above setbacks, state and professional disciplinary authorities offer some possible recourse for victims of criminal discovery violations, as do perjury and obstruction-of-justice statutes.¹⁴³ Prosecutors who suborn perjury or obstruct justice can be prosecuted criminally or suffer a finding of criminal contempt,¹⁴⁴ and yet for most critics, criminal liability is far too rare to count as a true sanction.¹⁴⁵ State professional authorities theoretically can disbar or censure wayward prosecutors pursuant to their state's version of Model Rule of Professional Conduct 3.8(d), but this too is quite rare.¹⁴⁶

& Legal Theory Research Paper Series, No. 202, 2011), available at <http://ssrn.com/abstract=1934250> (on file with the *Columbia Law Review*).

141. *Connick*, 131 S. Ct. at 1368 (Scalia, J., concurring). Thus, if a rogue prosecutor intentionally withheld evidence she knew to be exculpatory, the lack of training could not have caused the violation. *Id.*

142. See Laurin, *supra* note 140, at 3 (“*Connick* appears to have put the final nail in the coffin of civil litigation as a mechanism of prosecutorial oversight, and throws into doubt the future of civil rights claims aiming to hold government entities directly responsible for violations of the constitution that their employees perpetrate.”); see also Bandes, *supra* note 72, at 715–16 (explaining roots of criticism of *Connick*); Samuel R. Wiseman, *Brady*, Trust, and Error, 13 *Loy. J. Pub. Int. L.* 447, 447–48 (2012) (discussing trend in Supreme Court cases curtailing *Brady* disclosure rule).

143. See Cynthia E. Jones, *A Reason to Doubt: The Suppression of Evidence and the Inference of Innocence*, 100 *J. Crim. L. & Criminology* 415, 437 n.98 (2010) (citing statute provisions and one case in which prosecutor was threatened by federal court with sanctions).

144. See, e.g., *State ex rel. Okla. Bar Ass'n v. Miller*, 309 P.3d 108, 120 (Okla. 2013) (discussing appropriate punishment for prosecutorial misconduct); Terry Carter, *Misconduct in Two 1990s Death-Penalty Cases Gets Ex-Prosecutor Suspended*, A.B.A. J. (June 28, 2013, 6:56 PM), http://www.abajournal.com/news/article/misconduct_in_two_1990s_death-penalty_cases_gets_ex-prosecutor_suspended/ (on file with the *Columbia Law Review*) (discussing former prosecutor who was suspended from practicing law and forced to pay fine following two wrongful convictions); James Oliphant, *Ted Stevens' Charges Dismissed as Judge Excoriates Prosecutors*, L.A. Times (Apr. 8, 2009), <http://articles.latimes.com/2009/apr/08/nation/na-stevens8> (on file with the *Columbia Law Review*) (discussing federal judge who ordered criminal inquiry of prosecutors in case against former Senator Ted Stevens); Paul J. Weber, *Ex-Prosecutor Gets Jail for Wrongful Conviction*, Associated Press (Nov. 8, 2013, 7:58 PM), <http://bigstory.ap.org/article/ex-prosecutor-gets-jail-wrongful-conviction> (on file with the *Columbia Law Review*) (discussing prosecutor who agreed to ten-day jail sentence after wrongful murder conviction).

145. *United States v. Olsen*, 737 F.3d 625, 630 (9th Cir. 2013) (Kozinski, C.J., dissenting from denial of rehearing en banc) (“Criminal liability for causing an innocent man to lose decades of his life behind bars is practically unheard of.”).

146. Model Rules of Prof'l Conduct R. 3.8(d) (2010). For a critique of the overall weakness of prosecutorial discipline, see Fred C. Zacharias, *The Professional Discipline of Prosecutors*, 79 *N.C. L. Rev.* 721, 725–65 (2001). As noted, Rule 3.8 conflicts with narrower disclosure obligations laid out in statutes such as the Jencks Act. See sources cited *supra* note 53 (comparing Jencks Act to Rule 3.8 and *Brady* disclosure requirement). This, in

The problem, as reformers have often pointed out, is that state and professional authorities rarely enforce these provisions.¹⁴⁷ Even in recent years, only in the most egregious cases have prosecutors been publicly criticized, censured, or disbarred, leading some scholars to conclude that *Brady*'s primary enforcement mechanism is little more than a "paper tiger."¹⁴⁸ Accordingly, the most likely "sanctions" to follow a *Brady* violation (if one is in fact detected) are the professional and personal costs associated with an inquiry or formal investigation.¹⁴⁹ Professor Gershowitz has proposed that courts expand these "in-kind" sanctions by naming prosecutors in public documents in order to publicly shame them.¹⁵⁰ Perhaps this would alter the prosecutor's cost-benefit analysis in marginal cases, but it pales in comparison to the blockbuster, million-dollar verdict that reformers obtained, and then lost, in the *Connick* case.¹⁵¹

3. *Organizational Dynamics*. — The third category encompasses a variety of proposals unified by their desire to alter the prosecutor's social and organizational context.¹⁵² These proposals include, among others: (1) improvement in the informal social norms that guide the prosecutor's interaction with her adversary;¹⁵³ (2) better training and the adoption of

turn, makes discipline less likely. See, e.g., Bruce A. Green, *Prosecutorial Ethics as Usual*, 2003 U. Ill. L. Rev. 1573, 1593 ("[A]s far as one can tell . . . courts and disciplinary authorities do not sanction prosecutors for failing to disclose evidence as required by [Rule 3.8] but not by other law.").

147. See Richard A. Rosen, *Disciplinary Sanctions Against Prosecutors for Brady Violations: A Paper Tiger*, 65 N.C. L. Rev. 693, 696–97 (1987) (describing disciplinary system as weak due to failure of enforcement).

148. *Id.* at 693, 696–97, 730–31; see also Bibas, *Prosecutorial Regulation*, *supra* note 77, at 975–79 (describing lack of accountability mechanisms). According to Professor Yaroshesky's account of the New Orleans District Attorney's Office, the subject of the *Connick* case discussed earlier, no prosecutor has ever been formally sanctioned by the office for *Brady* violations. Yaroshesky, *New Orleans Prosecutorial Disclosure*, *supra* note 119, at 919–20.

149. See Lawrence Rosenthal, *Second Thoughts on Damages for Wrongful Convictions*, 85 Chi.-Kent L. Rev. 127, 156 (2010) ("Prosecutors who bring unwarranted charges risk both political and professional embarrassment.").

150. Adam M. Gershowitz, *Prosecutorial Shaming: Naming Attorneys to Reduce Prosecutorial Misconduct*, 42 U.C. Davis L. Rev. 1059, 1062–64 (2009) (criticizing widespread practice by courts of purposely not identifying prosecutors by name in opinions chronicling intentional misconduct). Although Gershowitz directs his argument at a broad category of misconduct, he explicitly includes *Brady* violations. *Id.* at 1075–80.

151. *Connick v. Thompson*, 131 S. Ct. 1350, 1355–56, 1366 (2011) (reversing Fifth Circuit's affirmation of fourteen-million-dollar jury verdict).

152. For a helpful overview, see generally *New Perspectives on Brady*, *supra* note 6, at 1961 (addressing "core issues affecting prosecutors' offices from around the country").

153. See, e.g., Lissa Griffin & Stacy Caplow, *Changes to the Culture of Adversarialness: Endorsing Candor, Cooperation and Civility in Relationships Between Prosecutors and Defense Counsel*, 38 *Hastings Const. L.Q.* 845, 847, 850–63, 866–72 (2011) (describing and encouraging "more cooperative model" highlighted by "candor, cooperation, and civility").

certain case-management tools to reduce unintentional violations;¹⁵⁴ (3) more attention to structural factors—such as work assignments and oversight—that affect decisionmaking;¹⁵⁵ and, finally, (4) the implementation of formal, internal compliance programs to deter wrongdoing.¹⁵⁶

The “better norms” camp seeks to improve both the prosecutor’s relationship with her adversaries and the norms that prevail in her office. Cooperative relationships are valuable because they increase useful interaction between the prosecutor and defense counsel and thereby encourage a freer flow of information between the parties.¹⁵⁷ The adversarial process reportedly subverts such cooperation, notwithstanding the fact that some offices are better able to cultivate relationships with defense attorneys than others.¹⁵⁸ The same process also reportedly encourages prosecutors to rationalize shortcuts that also interfere with the free flow of exculpatory information envisioned by *Brady*.¹⁵⁹ The adversarial system thus interferes with the development of both cooperative and law-abiding norms.

Other reformers attach sociolegal importance to the prosecutor’s office, focusing on everything from its formal policies to its unstated practices and social dynamics. A growing literature of scholarly and trade articles urges prosecutors’ offices to implement better training and guidance for new and current attorneys, particularly those who operate within large, case-intensive jurisdictions;¹⁶⁰ to promote ethical cultures by discussing the prosecutor’s ethical obligation during the interview pro-

154. For the benefits of internal checklists, see, e.g., *New Perspectives on Brady*, supra note 6, at 1974–78.

155. See *id.* at 1992–94 (discussing supervision); *id.* at 1996–97 (discussing culture).

156. See Barkow, supra note 15, at 2090–91 (introducing idea that “corporate compliance model could be practically applied to prosecutors’ offices”); see also Parajon, supra note 23, at 1347–48 (proposing formal audits and best-practices guidelines).

157. See Laurie L. Levenson, *Discovery from the Trenches: The Future of Brady*, 60 *UCLA L. Rev. Discourse* 74, 83–84 (2013), <http://www.uclalawreview.org/pdf/discourse/60-6.pdf> (on file with the *Columbia Law Review*) (lamenting lack of cooperation between prosecutors and defense counsel and effect of such noncooperation on discovery process).

158. Critiques of the adversarial process and its effect on prosecutor–defense-counsel relations are not new. See, e.g., Rosemary Nidiry, Note, *Restraining Adversarial Excess in Closing Argument*, 96 *Colum. L. Rev.* 1299, 1299 (1996) (“[H]igh levels of combativeness potentially threaten the effectiveness and legitimacy of trials.”). Regarding differences across prosecutors’ offices and their respective relationships with defense attorneys, see generally Levine & Wright, supra note 88, at 1166–68.

159. See, e.g., Griffin & Caplow, supra note 153, at 845 (“More typical [than relationships between prosecutors and defense counsel becoming unmanageable] is the enduring culture of adversarialness and suspicion that sometimes seems to justify prosecutorial shortcuts, self-serving interpretations of procedural rules, and self-justification in the name of obtaining convictions.”); see also Levenson, supra note 157, at 83–84 (arguing prosecution and defense counsel should “work collaboratively” with each other).

160. See Timothy Fry, *Prosecutorial Training Wheels: Ginsburg’s Connick v. Thompson Dissent and the Training Imperative*, 102 *J. Crim. L. & Criminology* 1275, 1308 (2012) (advocating adoption of national *Brady* handbook for prosecutors’ offices); *New Perspectives on Brady*, supra note 6, at 1989–92 (delineating different types of training).

cess;¹⁶¹ and to celebrate instances of ethical compliance alongside trial victories.¹⁶²

Even federal prosecutors' offices—famous for their comparatively stingy approach to discovery—have embraced various aspects of organizational reform.¹⁶³ Following the Ted Stevens scandal, in which it was revealed that federal prosecutors withheld substantial exculpatory impeachment evidence from defense attorneys during the trial of a sitting U.S. Senator, Attorney General Eric Holder robustly embraced training and enhanced review processes within the U.S. Attorneys' Offices.¹⁶⁴ Among other reforms, he created the role of a "national discovery coordinator"; required each U.S. Attorney's Office to designate a *Brady* coordinator; and required each office to verify that it had trained its attorneys in *Brady* and its progeny.¹⁶⁵

Finally, some have argued that prosecutors' offices should adopt internal governance and enforcement mechanisms that mimic those adopted by for-profit corporations.¹⁶⁶ In addition to supporting the training and guidance efforts discussed above, these "hard law" programs would monitor, investigate, punish, and presumably report disclosure violations.¹⁶⁷ Unlike the norms-building and training-and-guidance proposals, the compliance approach has some real teeth: Through the

161. See New Perspectives on *Brady*, supra note 6, at 1986–88 ("Hiring is an early and often-overlooked opportunity to improve discovery practices."); see also Hadar Aviram, Legally Blind: Hyperadversarialism, *Brady* Violations, and the Prosecutorial Organizational Culture, 87 St. John's L. Rev. 1, 42–43 (2013) (suggesting hiring practices that would require prosecutors to have practiced as defense attorneys before becoming prosecutors); Bibas, Prosecutorial Regulation, supra note 77, at 1009 (arguing for hiring of prosecutors with defense practice).

162. See New Perspectives on *Brady*, supra note 6, at 1988 (suggesting presentation of awards that would "formally recognize police and prosecutors who do the right thing"); see also Stephanos Bibas, Rewarding Prosecutors for Performance, 6 Ohio St. J. Crim. L. 441, 444–47 (2009) (arguing for adoption of surveys that could be filled out by defendants, witnesses, and other members of public, advising of prosecutor's performance and interaction with others).

163. Federal prosecutors are most resistant to expanding the scope of the prosecutor's discovery obligation. State prosecutors, however, have in some instances embraced open-file discovery. See New Perspectives on *Brady*, supra note 6, at 1968 (observing several members of working group were prosecutors who worked in open-file discovery jurisdictions and had "expressed satisfaction with this approach").

164. For a discussion and critique of the training programs promulgated by Attorney General Holder in response to the overturning of Ted Stevens's conviction, see Green, Beyond Training Prosecutors, supra note 14, at 2169–70 (questioning whether training programs "and the like" are sufficient to counteract *Brady* violations).

165. Ogden Memo, supra note 118 (issuing guidance on criminal discovery to federal prosecutors); Green, Beyond Training Prosecutors, supra note 14, at 2162 (summarizing changes); see also Cassidy, supra note 5, at 1449–51 (observing Attorney General Holder's actions may have played role in successfully warding off changes to Rule 16).

166. On the use of compliance programs within prosecutors' offices, see Barkow, supra note 15, at 2105–07.

167. *Id.*

implementation of these compliance programs, wayward prosecutors might actually experience the very sanctions reformers seem unable to impose on them externally.¹⁶⁸ To that end, a formal, organization-based compliance regime is itself a hybrid: It plays upon an individual's external motivations to comply by threatening investigations and sanctions, and it builds up her internal motivations to comply by implementing guidance, training, and norms-building exercises.¹⁶⁹ Tending to both sides of the equation, however, is no easy task.

Whether a compliance approach is truly feasible within a typical prosecutor's office lies outside the scope of this Article. For now, it is sufficient to point out that for-profit corporations have developed sophisticated internal compliance functions because the law effectively requires them to do so through a complex combination of sticks and carrots.¹⁷⁰ Far fewer sticks and carrots are likely to guide prosecutors' offices, particularly as the Supreme Court forecloses office-wide liability for most *Brady*-related violations under 42 U.S.C. § 1983.

II. HOW TIMING AFFECTS PROSECUTORS

Part I explored conventional explanations for *Brady* noncompliance and surveyed the three most popular areas of reform: scope, sanctions, and organizational dynamics. Underlying these reform strategies is the assumption that prosecutors maintain stable preferences.¹⁷¹ Part II challenges this assumption and explains how incentives and temptations to cheat evolve and recur respectively over time. This dynamic account provides a richer understanding of why prosecutors withhold evidence.

168. *Id.* at 2105–06 (arguing prosecutorial-compliance program can achieve improved deterrence if its efforts are “coupled with individual liability for those prosecutors who engage in wrongful conduct”).

169. See Milton C. Regan, Jr., *Risky Business*, 94 *Geo. L.J.* 1957, 1970–82 (2006) (distinguishing “deterrence-based” compliance programs and “integrity-based” programs aimed at improving organizational values and culture); Gary R. Weaver, *Encouraging Ethics in Organizations: A Review of Some Key Research Findings*, 51 *Am. Crim. L. Rev.* 293, 302–07 (2014) (discussing distinction between improving organization's ethical culture and instituting system of punishment and rewards).

170. For a discussion of the various legal institutions that encourage and require corporations to adopt internal compliance programs, see Miriam Hechler Baer, *Governing Corporate Compliance*, 50 *B.C. L. Rev.* 949, 961–72 (2009). For arguments that compliance generally has failed in the corporate context, see generally Kimberly D. Krawiec, *Cosmetic Compliance and the Failure of Negotiated Governance*, 81 *Wash. U. L.Q.* 487 (2003).

171. See, e.g., Bandes, *supra* note 72, at 730–32 (arguing “incentive structures deeply imbedded in the culture of the [prosecutor's] office” encourage prosecutors to violate *Brady*); Findley & Scott, *supra* note 90, at 295 (arguing tunnel vision infects “all” aspects of the prosecution).

A. *Incentives Evolve*

Prosecutions do not occur in an instant; rather, they unfurl over a period of time. Much of prosecutorial life revolves around the various stages of the criminal justice inquiry. Prosecutors participate in investigations; prepare charges and seek grand jury indictments; argue bail hearings that often entail the defendant's remand to prison while awaiting trial; present evidence and make legal and factual arguments at suppression hearings and in responses to motions to dismiss; and prepare witnesses and motions in limine in advance of trial. In addition, they respond to arguments at sentencing, produce witnesses for sentencing hearings if necessary, defend cases on appeal, and respond to post-conviction motions.¹⁷²

Timing matters, even if one takes into account cognitive biases or organizational settings. How the prosecutor feels about her case and the exculpatory evidence that threatens to upend it depends very much on when she discovers the evidence relative to the stage of the prosecution. This claim is explored more fully below.

1. *Early Stages: Uncertainty and Alternatives.* — Consider the prosecutor carrying a caseload of seventy-five felony cases. To the extent she wishes to improve her reputation and chances at promotion, she must maximize her overall conviction rate and her average length of criminal sentence.¹⁷³ Assume further that she has the ability either to hand the case off to someone else or throw it back into some general repository when the case appears overly weak.¹⁷⁴ Under these circumstances, the prosecutor's performance does not likely rise or fall on the outcome of a single case. Rather, she seeks to maximize her overall *portfolio* of cases.¹⁷⁵

172. On the stages of a felony investigation and prosecution, see Yale Kamisar et al., *Advanced Criminal Procedure* 3–19 (13th ed. 2012). Admittedly, most of the analysis here applies more readily to felony cases than to misdemeanor cases, which often resolve quickly. For an overview and critique of the misdemeanor system, see generally Alexandra Natapoff, *Misdemeanors*, 85 S. Cal. L. Rev. 1313 (2012), which explores the scale, mechanics, and possible detrimental impacts of a misdemeanor system on the broader criminal justice system.

173. Richard A. Bierschbach & Stephanos Bibas, *Constitutionally Tailoring Punishment*, 112 Mich. L. Rev. 397, 403 (2013) (“[P]rosecutors have their own incentives and ambitions. They tend to use their leverage to move cases through the system quickly and to maximize convictions, thus promoting deterrence and incapacitation.”). In other writing, Professor Bibas argues that the prosecutor is more interested in the certainty of conviction than in its severity. See Stephanos Bibas, *The Myth of the Fully Informed Rational Actor*, 31 St. Louis U. Pub. L. Rev. 79, 80 (2011) (“The prosecutor probably is not looking to maximize the overall punishment or sentence, but rather is seeking to guarantee a conviction and willing to trade off severity for certainty.”).

174. Concededly, this assumption depends greatly on an office's overall structure. Whether a given jurisdiction—or office unit or subunit—can easily decline cases will depend on numerous factors. Researchers who study differences in office structure would do well to include these factors in the future.

175. In finance, modern portfolio theory assumes that investors maximize their portfolio of investments through diversification of risk. See generally Harry Markowitz,

Some of her cases are likely duds; others may make her career. At the earliest stages of a prosecution, however, the prosecutor likely lacks sufficient information to reliably sort winners from losers.¹⁷⁶

Some cases nevertheless look “strong” or “weak” from their inception. At an early stage of a prosecution, there is little benefit in spending much time on a case if the supporting evidence is slim or equivocal.¹⁷⁷ When the case is young, and the prosecutor has done little to no work on it, it makes far more sense to invest time and energy in strong cases; the weak ones can either “age out” or find their way to someone else’s desk.¹⁷⁸

But what if some cases that once looked like blue-chip stocks later on turn out to be sure losers? Imagine at some early point in the case, T_0 , our prosecutor proceeds with a prosecution because the evidence in her possession appears to establish beyond a reasonable doubt that a particular defendant committed a serious crime. Some time later at T_1 , the prosecutor encounters evidentiary problems with the case that either make her doubt the defendant’s guilt or that a jury will return a favorable verdict. How will the prosecutor respond?

If the prosecutor learns of this problem early enough in the course of the prosecution, she can choose among several alternatives, such as:

- (a) disclose the evidence and abandon the prosecution altogether, or seek a significantly weaker charge;
- (b) disclose the evidence and shift her investigation from one target to another;
- (c) disclose the evidence and develop a different explanation for the defendant’s guilt; or
- (d) proceed with her prosecution and withhold the evidence from the defense.

Foundations of Portfolio Theory, 46 J. Fin. 469, 469–70 (1991). For applications of portfolio theory in the civil-litigation context, wherein investors “fund” a slate of cases filed by third parties, see Maya Steinitz, *The Litigation Finance Contract*, 54 Wm. & Mary L. Rev. 455, 500 (2012) (opining litigation funds should “operate based on the principles of modern portfolio theory”).

176. On the contingencies and risks that affect a prosecutor’s assessment of a case and whether to plea bargain, see Robert E. Scott & William J. Stuntz, *Plea Bargaining as Contract*, 101 Yale L.J. 1909, 1936–40 (1992).

177. If the case, for some reason, already has gained notoriety, the analysis may differ. This may explain District Attorney Michael Nifong’s egregious misbehavior despite the fact he received, fairly early on in the case, exculpatory evidence regarding the lacrosse-player defendants charged with committing rape. For a description of Nifong’s egregious misbehavior, see Mosteller, *Exculpatory Evidence*, *supra* note 111, at 285–92.

178. For a discussion of turnover in prosecutors’ offices, see Alexandra White Dunahoe, *Revisiting the Cost-Benefit Calculus of the Misbehaving Prosecutor: Deterrence Economics and Transitory Prosecutors*, 61 N.Y.U. Ann. Surv. Am. L. 45, 59–61 (2005).

Of the four preceding alternatives, option (d) is the only one that violates *Brady*.¹⁷⁹ On the positive side, however, option (d) involves the least amount of upfront work for the prosecutor; she need not interview additional witnesses, prepare onerous paperwork, or craft a new theory of the case. Nevertheless, knowingly withholding *Brady* evidence surely causes the prosecutor to bear risk. After all, *some* *Brady* violations do in fact come to light; and *some* of those violations lead judges to overturn convictions and refer *Brady* violations to professional authorities or otherwise shame prosecutors publicly.¹⁸⁰ Moreover, if the prosecutor has a strong conscience, option (d) is apt to trigger psychic costs in the form of guilt or shame.¹⁸¹

The other three options, by contrast, require an investment of time and work, but threaten few of the reputational risks associated with withholding exculpatory evidence. Moreover, options (b) and (c) offer the prosecutor a positive way to salvage her situation: She can focus the government's prosecution on the "true" criminal or instead devise a legitimately stronger case against the original defendant.

Similar arguments can be made for impeachment evidence. *Brady* and its progeny require not only the disclosure of evidence suggesting a defendant's innocence, but also the disclosure of evidence that would impeach a witness's credibility.¹⁸² Some types of impeachment evidence, such as the fact that a prosecutor has offered the witness leniency in exchange for his testimony, will be obvious to the prosecutor.¹⁸³ But others, such as inconsistent statements to investigatory authorities, may surface during later stages of the case.¹⁸⁴

Impeachment evidence, if discovered early enough, need not upend a prosecutor's case. Skilled prosecutors can "front" some of these issues during their direct examination and in their opening and closing state-

179. For the purpose of this discussion, one should assume the evidence is "material" as defined by *Brady* and its progeny. See *supra* notes 54–61 and accompanying text (articulating materiality standard).

180. See, e.g., cases cited *supra* notes 66, 67, 144 (describing various scandals and referrals, which in some instances resulted in prosecutorial discipline).

181. Psychic costs can also serve as a deterrent. See Robert H. Frank, *The Role of Moral Sentiments in the Theory of Intertemporal Choice*, in *Choice over Time*, *supra* note 32, at 265, 266 (arguing "moral sentiments" help individuals "avoid the temptation to break commitments that are in their material interests to keep"). See generally Philip M. Nichols, *The Psychic Costs of Violating Corruption Laws*, 45 *Vand. J. Transnat'l L.* 145 (2012) (suggesting psychic costs influenced Singapore and Malaysia to internalize corruption laws significantly differently).

182. *Giglio v. United States*, 405 U.S. 150, 154–55 (1972).

183. *Id.* at 154 (directing offices to establish appropriate "procedures and regulations" to ensure all prosecutors are aware of promises to or agreements with witnesses).

184. Cf. Cassidy, *supra* note 5, at 1471 ("Typically it is the process of trial preparation . . . that prompts prosecutors to notice discrepancies that could be used for impeachment purposes.").

ments to the jury.¹⁸⁵ Additional corroboration can assure the jury that the witness is in fact telling the truth. Late discovery of this evidence, however, renders these alternatives infeasible (since it is impossible to “front” evidence once a trial has already begun) or extremely costly (such as locating an additional witness to shore up a teetering witness’s testimony).

In sum, if exculpatory or problematic impeachment evidence surfaces at some early stage in the prosecution, the prosecutor can choose from a menu of options, nearly all of which are legal and unlikely to cause her reputational or professional harm.

2. *Later Stages: Alternatives Narrow and Costs Increase.* — As discussed above, when problematic evidence surfaces early in a prosecution, the prosecutor can choose from a range of options. When the same evidence surfaces at some later point in the prosecution, however, the prosecutor’s alternatives narrow. Charging other targets or crimes, securing additional witnesses to shore up an impeachable witness’s credibility, or establishing an alternate theory of the crime all become less feasible when a trial is impending or ongoing.

Accordingly, in the latter stages of a case, when exculpatory evidence surfaces, it imposes on the prosecutor a stark choice: disclose the evidence and drop the case (referred to here as “disclose-and-drop”), or proceed with the prosecution and withhold the evidence while also accepting the risk that someone eventually will discover the evidence and possibly overturn the conviction (“proceed-and-withhold”).¹⁸⁶

When disclose-and-drop imposes greater personal costs on the prosecutor than proceed-and-withhold, she is at greatest risk of choosing the latter option and violating *Brady*. This in turn prompts the core question for those seeking to reduce *Brady* violations: What are the personal costs of disclosing exculpatory evidence and terminating an already-charged case?

Although context certainly varies, disclose-and-drop triggers a variety of costs that are best characterized in the aggregate as “switching

185. See, e.g., *People v. Suff*, 324 P.3d 1, 41 (Cal. 2014) (observing “value of the [excluded] impeachment evidence was low” because witness’s testimony “could be corroborated”). Indeed, corroboration undermines a *Brady* claim: “[W]hen the testimony of the witness who might have been impeached by the undisclosed evidence is strongly corroborated by additional evidence supporting a guilty verdict, the undisclosed evidence generally is not found to be material.” *United States v. Sipe*, 388 F.3d 471, 478 (5th Cir. 2004).

186. Concededly, the prosecutor who chooses proceed-and-withhold might also offer the defendant an overly favorable (“cheap”) plea in order to quickly resolve the case and minimize the risk that someone will detect a *Brady* violation (if it even is a violation). Although this might be a viable strategy at the beginning of the case, a cheap plea later in the case may signal—to defense counsel and possibly the court—a problem with the prosecutor’s proof. This Article therefore assumes for the sake of simplicity that when the prosecutor chooses proceed-and-withhold, she makes no significant adjustment in her negotiation with opposing counsel.

costs.”¹⁸⁷ For example, dropping a case results in certain *administrative costs* such as filling out paperwork, seeking a supervisor’s approval if necessary, appearing in court, and seeking the court’s dismissal of an already-indicted case.¹⁸⁸

In addition to the foregoing, there may be additional *cognitive costs* that inhere in jumping from a well-developed prosecution to a new, unrelated matter.¹⁸⁹ For example, if the prosecutor has spent weeks immersing herself in the facts and legal doctrines pertinent to a complicated bank-robbery case, she might find it quite difficult to put away her files and jump to a completely new matter the very next day. By contrast, if she has worked only one day on an investigation, she may find it much easier to put the old case out of her head and embrace a new investigation and prosecution.¹⁹⁰

More importantly, substantial *reputational costs* accompany the prosecutor’s decision to dismiss or close an investigation or prosecution, particularly when that case has languished for a period of time.¹⁹¹ At an early stage, a given prosecutor’s file may be perceived simply as one of many cases belonging generally to a given unit or to the office as a whole. Later, however, after charges have been filed and hearings have been held, the case may become associated with a particular prosecutor: Colleagues may refer to it as *Michael’s case* or *Patricia’s hearing*.¹⁹² Owner-

187. Switching costs arise in the antitrust and consumer-law contexts. See, e.g., Paul Klemperer, *Markets with Consumer Switching Costs*, 102 *Q.J. Econ.* 375, 375 (1987) (“In many markets consumers face substantial costs of switching between brands . . . that are *ex ante* undifferentiated.”). These costs cause a consumer not to switch to a new product even if the new product offers benefits in excess of the old product. For a description of various components of switching costs, see David G. Yosifon, *Consumer Lock-In and the Theory of the Firm*, 35 *Seattle U. L. Rev.* 1429, 1450–51 & n.93 (2012) (describing six categories, including psychological and administrative costs).

188. On the procedures for seeking a “*nol pros*” (or *nolle prosequi*) after a defendant has already been indicted by a grand jury, see Kamisar et al., *supra* note 172, at 981–82. Further, Professor Bowers observes that low-level prosecutors “typically must seek *supervisory* approval to dismiss.” Josh Bowers, *Legal Guilt, Normative Innocence, and the Equitable Decision Not to Prosecute*, 110 *Colum. L. Rev.* 1655, 1710 (2010).

189. For more on cognitive costs generally and how they affect consumers, see Yosifon, *supra* note 187, at 1450 (describing “learning and habituation” costs that keep customers from switching products).

190. Antitrust scholars refer to these types of costs as “learning costs,” which are the costs that inhere when an individual abandons one product and has to learn how to use a similar but different product. See Aaron S. Edlin & Robert G. Harris, *The Role of Switching Costs in Antitrust Analysis: A Comparison of Microsoft and Google*, 15 *Yale J.L. & Tech.* 169, 182 (2013) (“The more significant the differences are across products, and the longer or more concentrated the effort required to learn how to use a difference product, the greater the costs of switching between products.”).

191. On protecting reputations generally, see Bibas, *Plea Bargaining*, *supra* note 78, at 2541 (“Self-interest and risk aversion motivate most line attorneys to safeguard their reputations, win-loss records, and egos by not risking losses at trial.”).

192. How quickly the case is viewed as belonging to a particular prosecutor or group of prosecutors may depend in part on the structure of the office that employs the

ship, in turn, brings with it reputational risk. Michael wishes not to lose *his* case and Patricia desires not to lose *her* hearing. Accordingly, when a prosecutor reveals problems in *her* case, such as late-breaking *Brady* evidence, she invites speculation and judgment. Internally, her supervisors and peers may conclude that she is inept, lazy, disorganized, overly intimidated by her adversaries, or simply unable to obtain criminal convictions. Externally, victims or the local press may question and criticize her decision to forgo prosecution.¹⁹³

Even worse, the prosecutor's decision to disclose-and-drop may cause supervisors or outsiders to question previous decisions, regardless of how reasonable those decisions seemed at the time. Charging decisions, bail determinations, arguments at suppression hearings, and numerous other decisions—all of which may have been reasonable at the time—suddenly look suspect when a prosecutor switches course in a way that suggests the defendant was innocent after all.¹⁹⁴ Psychologists refer to this as outcome bias: “When decisions turn out badly, people assume that decisionmakers made poor choices.”¹⁹⁵ Accordingly, the later in the process that a prosecutor decides to disclose-and-drop, the more likely she will have to contend with *linkage* costs, the costs associated with defending previous decisions regarding the investigation and prosecution of the case.¹⁹⁶

Finally, consider the *sunk costs*—fallacious but nevertheless sincerely felt—that many prosecutors are likely to respond to when evidence appears late in the process.¹⁹⁷ Because prosecutors are human, they will

prosecutor. See Levine & Wright, *supra* note 88, at 1137–38 (describing differences in office structure and how these differences might affect how prosecutors view themselves and their work).

193. For early discussions of a prosecutor's reputation, see Richman, *Stipulating Away*, *supra* note 80, at 967–69 (citing James Eisenstein and earlier scholars). For later accounts, see Yaroshesky, *New Orleans Prosecutorial Disclosure*, *supra* note 119, at 934 (observing, based on interviews with various stakeholders in New Orleans, “culture of fear among prosecutors about being blamed for errors or losing cases” in New Orleans District Attorney's Office).

194. The phenomenon whereby negative outcomes affect an individual's assessment of the quality of previous decisions is known as the “outcome bias,” which is related to, but different from, “hindsight bias.” Whereas hindsight bias causes someone to overstate the probability of an already-occurring event, outcome bias causes the individual to alter her view of someone's “decision quality” in light of a certain outcome. See, e.g., Jeffrey Rachlinski, *A Positive Psychological Theory of Judging in Hindsight*, 65 U. Chi. L. Rev. 571, 580–81 (1998) (discussing interplay of outcome bias and hindsight bias).

195. *Id.* at 581.

196. For a discussion of “linkage” in a different context, see Miriam H. Baer, *Linkage and the Deterrence of Corporate Fraud*, 94 Va. L. Rev. 1295, 1296 (2008) (describing phenomenon in which criminal's cessation of future criminal conduct increases probability that enforcement authorities will detect previous misconduct).

197. See Cass R. Sunstein, *Group Judgments: Statistical Means, Deliberation, and Information Markets*, 80 N.Y.U. L. Rev. 962, 992 n.140 (2005) (“The sunk cost fallacy (‘throwing good money after bad’) emerges when people reason, after making a bad investment: I shouldn't stop now, because if I do, I will lose what I have already paid

likely consider the amount of work they have already invested in a case—and not just the costs they are likely to incur in the future—when they decide how to proceed. Accordingly, a prosecutor’s previous investment in a case may play a large role in guiding the choice between disclose-and-drop and proceed-and-withhold.

Concededly, the presence and severity of the foregoing costs may differ depending on the prosecutor’s personal role in the case, where she is in the arc of her career, her office structure, and any number of additional variables. Thus, the study of timing offers some additional insight on when organizational factors are most likely to affect compliance with *Brady*. A district attorney or U.S. Attorney who visibly praises a single prosecutor for catching a mistake and dropping a case can substantially reduce the line prosecutor’s perception of the reputational costs associated with disclose-and-drop.¹⁹⁸

3. *Conclusion.* — As the foregoing discussion demonstrates, the disclosure of exculpatory and impeachment evidence is more costly to the prosecutor during later stages of a case than it is during earlier stages of a case. It is extremely difficult, midtrial, to revise one’s theory of how a defendant committed a given crime or find corroborating evidence for a witness whose testimony is spotty. It is exceedingly embarrassing, on the eve of trial, to drop the most serious charges against the defendant and proceed only with lesser charges.

On the other side of the ledger are the costs that accrue if the withheld evidence is later found and then disclosed to a court by the defendant’s attorney or some third party. From there, depending on the circumstances, a court might vacate a conviction, declare a mistrial, order a separate investigation of the prosecutor or her office, or publicly shame the prosecutor.¹⁹⁹ All of these actions impose direct and indirect costs on prosecutors and their offices.²⁰⁰ These costs, however, are contingent on the detection of the prosecutor’s violation. If they register at all, they are

out.”). Professor Burke addresses sunk-cost fallacies in the context of plea bargaining. See Alafair S. Burke, *Prosecutorial Passion, Cognitive Bias, and Plea Bargaining*, 91 Marq. L. Rev. 183, 202 (2007) (recognizing existence and importance of sunk costs in prosecutorial decisionmaking).

198. See Bibas, *Prosecutorial Regulation*, supra note 77, at 1000 (“District attorneys who award high status and a big office to the office ethics maven and funnel queries to him underscore the importance of ethical conduct.”).

199. See supra notes 66–68 and accompanying text (discussing consequences of violating *Brady*).

200. See, e.g., Rosenthal, supra note 149, at 128 (discussing potential costs of wrongful convictions and prosecutions). For recent examples of courts criticizing federal prosecutors for *Brady* misconduct, see *United States v. Jones*, 686 F. Supp. 2d 147, 148–49 (D. Mass. 2010); *United States v. Jones*, 620 F. Supp. 2d 163, 167 (D. Mass. 2009); *United States v. Jones*, 609 F. Supp. 2d 113, 115 (D. Mass. 2009); *United States v. Stevens*, 593 F. Supp. 2d 177, 182 (D.D.C. 2009).

likely to do so only after a substantial passage of time and with significant effort.²⁰¹

By contrast, the switching costs that accompany the disclosure of exculpatory evidence register almost immediately. As soon as she tells her superiors that she has found exculpatory evidence that threatens the life of her case, the prosecutor will experience a serious round of questioning as to why she found the evidence so late, why she failed to recognize its importance, and any number of additional questions.²⁰² No wonder, then, that she may prefer to ignore, minimize, or shelve the exculpatory evidence she discovers during the latter course of the prosecution.

B. *Temptations Recur*

As discussed above, prosecutors have very real incentives to withhold later-discovered evidence due to the administrative and reputational costs that inhere in disclosing evidence, particularly when those disclosures occur during the later stages of a case and when those disclosures all but entail the dismissal of the case. Accordingly, we can say that a rational prosecutor's *absolute* preferences change over time and that her incentives to cheat increase as a prosecution progresses from some initial investigatory stage to trial or sentencing.

Timing's effect on prosecutorial compliance, however, does not end here. The prosecutor's *relative* preferences also change. That is, the prosecutor's preferences—would she rather give up the case or forge ahead?—change relative to a given point in time. When viewed in the future, the cost of losing a case may appear rather modest. When the future becomes “now,” however, that cost may be viewed quite differently, even with no other change in circumstances.

The technical term for this concept is temporal inconsistency.²⁰³ Given an identical set of choices, a decisionmaker chooses a different alternative, depending on when that choice occurs. As a result, individuals “switch preferences” unexpectedly and often experience regret afterward.²⁰⁴

201. On the difficulties of obtaining such evidence in postconviction settings, see Medwed, *Prosecution Complex*, supra note 74, at 125–26 (describing legal hurdles defendants often face). For a recent example of delay in recognizing *Brady* violations, see *United States v. Alvin*, No. 10-65, 2014 WL 2957439, at *1–*2 (E.D. Pa. July 1, 2014) (observing government's failure to hand over *Brady* evidence lasted forty-six months, during which defendant was in pretrial detention).

202. See supra notes 191–196 and accompanying text (discussing reputational costs of disclose-and-drop strategy).

203. See supra notes 30–36 (setting forth major works on temporal inconsistency).

204. See Andrew Green, *Self Control, Individual Choice and Climate Change*, 26 *Va. Envtl. L.J.* 77, 86 (2008) (“[I]ndividuals are willing to wait for a better outcome that occurs in the future over accepting a worse outcome in the short run. As the time approaches for the decision, however, the individual's preferences change and she prefers the sooner, less-favorable outcome over the later, better outcome.”).

One of the reasons individuals exhibit inconsistent preferences is that they maintain different discount rates, a phenomenon known as hyperbolic discounting. Hyperbolic discounting differs significantly from “exponential” or rational-actor discounting. Regardless of one’s discount function, money received today is worth more than the same amount of money received tomorrow.²⁰⁵ This truism reflects both the effects of inflation, as well as the fact that individuals are risk averse and prefer definite cash flows today to possible ones in the future.²⁰⁶ The same analysis applies to intangible forms of utility. Things that we can enjoy now—prestige, happiness, power—are more valuable to us now than the same amount provided at some time in the future. Conversely, disutility experienced now is more painful than disutility experienced later. This is one of the reasons that deterrence is influenced not only by the size and likelihood of sanctions, but also by the swiftness with which they are imposed.²⁰⁷

Exponential discounting assumes a stable discount factor relative to a given point in time.²⁰⁸ In other words, *the difference* in receiving a dollar today or tomorrow ought to be the same as the difference in receiving the same dollar a year from today and a year from tomorrow.²⁰⁹ Although the absolute values should differ (because one much prefers the dollar now to receiving it a year from now), the relative differences in utility ought to be the same, absent some external change in the situation.²¹⁰ In reality, however, individuals do in fact discount the two periods differently. That is, most of us see little difference between receiving a dollar one year from now and one year and a day from now, but we *do* contemplate a more significant decrease in utility when we are told we will receive the

205. See, e.g., Robert J. Rhee, *The Application of Finance Theory to Increased Risk Harms in Toxic Tort Litigation*, 23 Va. Envtl. L.J. 111, 130–31 (2004) (explaining basis for time value of money).

206. *Id.*

207. See Jolls, Sunstein & Thaler, *supra* note 30, at 1539–41 (discussing how hyperbolic discounting affects criminal deterrence); Yair Listokin, *Crime and (with a Lag) Punishment: The Implications of Discounting for Equitable Sentencing*, 44 Am. Crim. L. Rev. 115, 115–20 (2007) (same).

208. See *Choice over Time*, *supra* note 32, at xiii (“The discounted utility model assumes exponential discounting at a constant rate. This implies that a given time delay leads to the same degree of time discounting regardless of when it occurs.”).

209. See *id.* (“Under exponential discounting, a one-day delay has the same significance if it means deferring an outcome from today until tomorrow, or from one year from today to a year and a day from today.”).

210. See O’Donoghue & Rabin, *supra* note 33, at 103 (“Economists almost always capture impatience by assuming that people discount streams of utility over time exponentially. Such preferences are time-consistent: A person’s relative preference for well-being at an earlier date over a later date is the same no matter when she is asked.” (emphasis omitted)); see also Jolls, Sunstein & Thaler, *supra* note 30, at 1539 (describing hyperbolic discounting as pattern whereby “impatience is very strong for near rewards (and aversion very strong for near punishments) but each of these declines over time”).

dollar tomorrow instead of today. Psychologists refer to this as “declining impatience.”²¹¹

Hyperbolic discounting is problematic because it feeds temporal inconsistency—or the tendency to switch preferences. When costs and benefits occur in different time periods, hyperbolic individuals are likely to switch—often unexpectedly—their preferences. Over the long term, you want to lose weight, but in the short term, you become tempted by a piece of chocolate cake and eat it (and later feel remorse).²¹² Over the long term, you plan to use the entire semester to research and write your term paper, but in the short term, you procrastinate and then leave yourself too little time to do a good job.

Legal scholars have used hyperbolic discounting to explain self-destructive behavior in a number of contexts, which laypersons refer to as “willpower” lapses.²¹³ One can see how the same problems plague prosecutors: Many prosecutors may embrace, at the very beginning of a case, the fairly abstract obligation to “do justice.”²¹⁴ They may sincerely believe in their obligation and duty to disclose exculpatory evidence in a timely manner, to the extent such evidence exists. As disclosure becomes imminent, however, the cost of disclosure suddenly spikes. Alternatively, as a benefit becomes imminent—such as a guilty verdict or plea—the cost of exculpatory disclosure spikes even more.²¹⁵ A willpower-deprived pros-

211. See Yusuke Kinari, Fumio Ohtake & Yoshiro Tsutsui, *Time Discounting: Declining Impatience and Interval Effect*, 39 *J. Risk & Uncertainty* 87, 88 (2009) (explaining concept of declining impatience).

212. Some refer to this as a “dual self” problem whereby the long-term self is trumped by the short-term self’s desire for gratification. See *Choice over Time*, *supra* note 32, at xix–xx (citing papers featured in book that envision some long-horizon “self” in conflict with some shorter-horizon self); Fennell, *supra* note 32, at 1378 (describing tension between individual’s short- and long-term perspectives).

213. On willpower problems and their imperfect relationship to hyperbolic discounting, see Fennell, *supra* note 32, at 1378–79 (explaining hyperbolic discounting may be symptomatic of willpower lapses but is not synonymous with them). Researchers distinguish hyperbolic discounters from individuals with consistently high discount rates (i.e., who are so impulsive that they lack any long-term horizon in the first place). See, e.g., *Choice over Time*, *supra* note 32, at xiii (explaining time inconsistency “is different from a high rate of time discounting per se”); see also Richard H. McAdams, *Signaling Discount Rates: Law, Norms, and Economic Methodology*, 110 *Yale L.J.* 625, 656–61 (2001) [hereinafter *McAdams, Signaling Discount Rates*] (reviewing Eric A. Posner, *Law and Social Norms* (2000)) (drawing same distinction).

214. The “seek justice” obligation is itself difficult to define with consistency because justice “means different things to different people.” Tracey L. Meares, *Rewards for Good Behavior: Influencing Prosecutorial Discretion and Conduct with Financial Incentives*, 64 *Fordham L. Rev.* 851, 856 (1995). For an in-depth discussion, see Bruce A. Green, *Why Should Prosecutors “Seek Justice”?*, 26 *Fordham Urb. L.J.* 607, 610–12 (1999) (discussing obligations and professional ethos of prosecutors).

215. Readers will note that the immediate change in utility can be framed either as a sudden benefit (e.g., a defendant pleads guilty) or sudden cost (e.g., the prosecutor discloses exculpatory evidence and seeks permission to drop the case). Researchers find hyperbolic discounting present in both instances, although the effect is stronger for gains.

ecutor may at this point go back on her word and find some reason not to disclose the evidence.

As the literature on temporal inconsistency demonstrates, the “agency cost” and “bounded rationality” narratives do not fully explain *Brady* violations. Unlike the faithless agent, the temporally inconsistent prosecutor (by definition) retains a genuine, long-term desire to comply with her *Brady* obligations. And, unlike the boundedly rational agent, she knows that the evidence is exculpatory, although she may well engage in motivated reasoning to reduce the conscience-related costs of withholding evidence.²¹⁶

Unfortunately, temptations abound in criminal procedure. They arise when prosecutors look forward to receiving certain immediate or near-term benefits (a guilty plea, a conviction at trial, or a positive judicial determination on a motion), and when prosecutors perceive imminent and embarrassing costs (a noisy dismissal, acquittal, or acknowledgment of a wrongful conviction). Granted, some prosecutors will not experience these temptations as keenly as others. Others may be sophisticated enough to find ways to disable these tendencies.²¹⁷ For the remainder, the pairing of a high discount rate in the near present with a weaker one in the far future spells trouble. Prosecutors who maintain such a bias will project one course of socially desirable conduct, and yet veer inexplicably from that course when changes in utility move from the future to the present.²¹⁸ Thus, the prosecutor who sincerely imagines herself handing over exculpatory evidence in the future may find herself far less likely to do so when the future becomes “now,” particularly on the eve of a guilty plea, suppression hearing, trial verdict, or sentencing.²¹⁹

See Loewenstein & Thaler, *supra* note 35, at 184 (documenting different reactions from experimental subjects).

216. See Langevoort, *supra* note 120, at 512–13 (discussing experiments supporting “intuition that a person who wants to come to a particular inference will, subconsciously, look for a way to do so”).

217. On the difference between naïve and sophisticated individuals and how self-awareness affects temporal inconsistency, see O’Donoghue & Rabin, *supra* note 33, at 106–07. For a discussion of how sophisticates seek out devices to disable their short-term selves, see Dan Ariely & Klaus Wertenbroch, Procrastination, Deadlines, and Performance: Self-Control by Precommitment, 13 *Psychol. Sci.* 219, 219–20 (2002) (offering examples and citing literature).

218. Readers may note the subtle distinction between naïve hyperbolic discounting (failing to recognize one’s inconsistent discount rates) and what some researchers have labeled a “projection bias” whereby one incorrectly predicts his future tastes. See George Loewenstein, Ted O’Donoghue & Matthew Rabin, Projection Bias in Predicting Future Utility, 118 *Q.J. Econ.* 1209, 1232 n.27 (2003) (explaining difference).

219. See O’Donoghue & Rabin, *supra* note 33, at 103 (“When considering trade-offs between two future moments, present-biased preferences give stronger relative weight to the earlier moment as it gets closer.”).

In sum, a reformer who wishes to incorporate timing must worry about not only the absolute costs of disclosing exculpatory evidence, but also about the various chokepoints in which immediate costs or benefits will appear larger than they should. To ignore these temporal intervals is to leave oneself open to the lapses that have propelled so many varieties of misconduct.²²⁰

III. TIMING'S IMPLICATIONS FOR CRIMINAL DISCOVERY REFORM

Timing affects prosecutors. It dictates whether there will be substitutes for cheating and whether and how the prosecutor will perceive the costs of producing exculpatory evidence. As explained in Part II, the later the prosecutor discovers or receives exculpatory discovery, the fewer options she has at her disposal. As substitutes fall away, she is left with the stark choice of “disclose-and-drop” or “proceed-and-withhold.”

Even worse, to the extent our prosecutor displays hyperbolic tendencies (i.e., she is human), she is likely to experience substantial temptations to cheat when upfront benefits are imminent. With these temporal challenges now in mind, one can better assess *Brady* itself and the conventional reforms that have grown in popularity among practitioners and scholars.

A. (*One More of*) *Brady's Shortcomings*

Part II's discussion illuminates one of *Brady's* many failings, which is that it exacerbates the temporal components of prosecutorial noncompliance. Far from committing prosecutors to disclose information at the beginning of a case—when incentives and temptations to cheat are relatively low—the *Brady* line of cases permits prosecutors to sit on evidence and consider its “materiality,” thereby waiting until the eve of a trial or hearing, when incentives and periodic temptations are likely to be quite high.²²¹ It should come as no surprise, then, that *Brady* violations proliferate, even though *Brady* itself imposes a relatively weak obligation on prosecutors. When evidence surfaces after a period of time and the costs of disclosure loom large, *Brady* disclosure suddenly appears overly burdensome, and consequently, some prosecutors cheat.²²²

220. Professor Manuel Utset has applied the hyperbolic-discounting model to a number of legal contexts. See, e.g., Utset, *Hyperbolic Criminals*, supra note 31, at 668–74 (applying hyperbolic discounting to certain types of criminal behavior); Manuel A. Utset, *A Model of Time-Inconsistent Misconduct: The Case of Lawyer Misconduct*, 74 *Fordham L. Rev.* 1319, 1319–21 (2005) (using temporal inconsistency to explain why corporate lawyers “turn[ed] a blind eye” to misconduct); Manuel A. Utset, *Time-Inconsistent Management and the Sarbanes-Oxley Act*, 31 *Ohio N.U. L. Rev.* 417, 421–28 (2005) (explaining need for Sarbanes-Oxley Act to rein in misconduct by corporate managers).

221. See supra notes 58–61 and accompanying text (discussing concerns arising from “materiality” language).

222. See generally supra Part II.A–B (delineating prosecutor's evolving incentives).

Rule 16 of the Federal Rules of Criminal Procedure fares no better under this analysis.²²³ Critics often decry Rule 16's narrow scope,²²⁴ but its temporal characteristics deserve just as much criticism. First, prosecutors need not turn over prescribed materials until requested by the defendant's attorney.²²⁵ Second, other than the defendant's own written, oral, or recorded statements, prosecutors generally need not produce physical evidence unless they have decided either that they will use such evidence in their "case in chief" or that such evidence is "material to the preparation of the defense."²²⁶ Thus, Rule 16, just like *Brady* itself, pushes the disclosure decision into the future, when prosecutors are far more likely to feel incentives and temptations to cheat.

As the foregoing discussion demonstrates, prosecutorial nondisclosure is not simply a function of bad agents who gamble on the courts' narrow definition of "materiality," but is rather a function of the system's effect on fundamentally temptation-prone government servants.²²⁷ Professional obligations and local policies may curb this problem somewhat, but even those rules requiring prosecutors to hand over "all" exculpatory information "promptly" to the defense place no obligation on the prosecutor to investigate whether such evidence exists.²²⁸ Accordingly, exculpatory evidence, if it shows up at all, is more likely to appear later in the case.

Finally, the criminal justice system itself, with its strong emphasis on securing guilty pleas, exacerbates the problem. If ninety-five percent of the defendant pool pleads guilty, then resource-deprived prosecutors should rationally delay some of their preparation for trial until they know for sure whether a given defendant plans to plead not guilty. Consider Professor Barry Scheck's intuitive observation:

Given the burdensome caseloads of prosecutors, police, defense attorneys and judges, and the natural proclivity . . . to triage work according to deadlines, it is likely that most previously unknown, unrecognized, and unidentified *Brady* material is

223. See Fed. R. Crim. P. 16 (setting forth narrow, categorically defined discovery obligations).

224. See, e.g., Meyn, *supra* note 111, at 1111-12 (critiquing courts' narrow interpretation of Rule 16's materiality language).

225. See, e.g., Fed. R. Crim. P. 16(a)(1)(A) (requiring prosecutors to provide information only "[u]pon a defendant's request").

226. Fed. R. Crim. P. 16(a)(1)(E)(i)-(ii).

227. See Prosser, *supra* note 60, at 566 ("A prosecutor who recognizes the value of evidence favorable to a defendant can gamble that, even if the evidence comes to light . . . the defendant's conviction will be affirmed because the defendant will not be able to meet the high standard of materiality.").

228. The prosecutor has an obligation to secure *Brady* evidence already known to "others acting on the government's behalf in the case," *Kyles v. Whitley*, 514 U.S. 419, 437 (1995), but the government has no constitutional obligation to investigate leads or seek out potentially exculpatory evidence, Moore, *supra* note 41, at 1343 (noting police need not "investigate information that helps the defense").

going to emerge during last minute pre-trial preparation when the prosecutor starts reviewing all documents in the file intensively, interviewing or re-interviewing witnesses, anticipating the defense theory, and tying up loose ends with additional investigation.²²⁹

A number of state jurisdictions reflect this commonsense proposition and make the trial the “focal point” of their discovery and disclosure rules.²³⁰ Accordingly, not until plea bargaining has failed will a prosecutor hunker down and review forensic evidence, reinterview her witnesses, and—finally—recognize the various weaknesses and inconsistencies in her case. If the economic and behavioral accounts set forth in Part II are even close to accurate, this is the moment society should *least* desire her to identify exculpatory evidence.

B. *Sanctions*

The temporal approach also demonstrates the additional shortcomings of sanction-based reform, which in any event have largely failed.²³¹ Simply put, sanctions are not likely to deter prosecutorial misconduct because sanctions are notoriously contingent and inherently remote.²³² They apply in the future, after detection and following a significant amount of process (an evidentiary hearing and determination that sanctions are warranted, for example). Thus, were the Court to loosen its restrictive language in *Connick v. Thompson*, or remove prosecutorial immunity for intentional *Brady* violations, the prosecutor’s incentives and temptations to cheat in any immediate period would likely subvert the deterrent effect of these later-period sanctions. Just as temporally remote sanctions fail to fully deter present-oriented *criminals*, so too would they fail to deter certain present-oriented *prosecutors*.²³³

This is not to suggest that reformers should abandon all efforts to sanction prosecutors who have wrongfully withheld exculpatory evidence, or punish those offices that have promoted or willfully ignored such misconduct. Sanctions serve purposes other than deterrence, such as the compensation of victims and communication of society’s condem-

229. Barry Scheck, Professional and Conviction Integrity Programs: Why We Need Them, Why They Will Work, and Models for Creating Them, 31 *Cardozo L. Rev.* 2215, 2242 (2010). I thank David Jaros for highlighting this point.

230. See Yaroshesky, *Why Do Brady Violations Happen?*, supra note 102, at 14 (observing jurisdictions that allow disclosure on eve of trial).

231. See Rosenthal, supra note 149, at 160 (examining when courts are willing to institute reforms).

232. Later-period sanctions will be particularly unhelpful in offices where turnover is common. For more on turnover generally and its effect on prosecutors, see Dunahoe, supra note 178, at 60–61.

233. On the difficulties of designing sanctions to deter hyperbolic criminals, see McAdams, *Present Bias*, supra note 30, at 1615 (explaining why later-period sanctions fail to deter present-biased individuals).

nation.²³⁴ Credible sanctions—particularly, those meted out by professional bar associations—may in fact deter some “bad agent” prosecutors by shaming them and by spurring embarrassed district attorneys’ offices to institute organizational training and supervision.²³⁵ Moreover, the threat of organizational liability may empower those assistant district attorneys who are already inclined to obey *Brady* to follow through with their intentions and report defectors.²³⁶

Notwithstanding these benefits, where timing is concerned, sanctions exacerbate the hyperbolic prosecutor’s tendency to favor the present over the future. Sanctions—particularly drastic ones—are accompanied by process, and process takes time. And time, as noted earlier, is the enemy of compliance.

C. *Norms and Organizational Dynamics*

The study of timing demonstrates some of organizational reform’s benefits. For example, insofar as internalized social norms impose an immediate psychic cost on misconduct, they can play a helpful role in counteracting temptation-driven misconduct.²³⁷ If a rule-abiding norm tells a prosecutor to hand over evidence, then it triggers an intrinsic motivation to comply *regardless* of the likelihood of detection or sanctions.²³⁸ To the extent an intrinsic motivation registers at the very moment one is poised to violate a rule, it solves the intertemporality problem present in most formal-sanction systems.²³⁹

Social norms create not only internal motivations to comply with the law, but also external motivations.²⁴⁰ For example, social opprobrium

234. See Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 Mich. L. Rev. 338, 398 (1997) (“Of course, law alters behavior when the state threatens to enforce its rules But law also expresses normative principles and symbolizes societal values, and these moralizing features may affect behavior.”).

235. Moreover, temporally consistent bad agents, because they know they will fail to adhere to their principal’s wishes, pose a greater threat because they have advance notice of their tendency to do harm. Therefore, they will more likely evade detection by covering their tracks.

236. Cf. Dan M. Kahan, *Social Influence, Social Meaning, and Deterrence*, 83 Va. L. Rev. 349, 371 (1997) (explaining how “order-maintenance strategy” of visibly arresting individuals for low-level crimes can empower law-abiding individuals to “engage in patterns of behavior that themselves discourage crime”).

237. See, e.g., Miriam H. Baer, *Confronting the Two Faces of Corporate Fraud*, 66 Fla. L. Rev. 87, 132–40 (2014) [hereinafter Baer, *Confronting*] (arguing norms-based reforms promote compliance by immediately confronting temptations to cheat).

238. On the sources and influences of norms on line prosecutors, see generally Marc L. Miller & Ronald F. Wright, *The Black Box*, 94 Iowa L. Rev. 125, 176–81 (2008) (identifying legislatures, public, courtroom “working group,” and other sources of norms in prosecutor’s offices).

239. McAdams, *Present Bias*, *supra* note 30, at 1615.

240. On the difference between external and internal motivations, see Yuval Feldman, *The Complexity of Disentangling Intrinsic and Extrinsic Compliance Motivations: Theoretical and Empirical Insights from the Behavioral Analysis of Law*, 35 Wash. U. J.L. &

reduces misconduct because it imposes reputational and communal costs on those few individuals who violate the rules.²⁴¹ If reputational and communal costs register immediately or shortly after the commission of an offense, they too can provide a better check on bad behavior than formal sanctions, which almost always occur at some later point at time.

On the other hand, norms are difficult to gauge and take time to nurture.²⁴² It is difficult to promulgate a policy whose primary goal is “norm creation.” Soft reforms such as education, debiasing, and training can be beneficial, but will be very difficult to verify. Sorting the “real” reforms from merely cosmetic ones has become a recurring theme in the corporate-compliance literature; there is little reason to believe that similar problems would not plague the prosecutorial context, where organizational processes are, by nature, more opaque and therefore more difficult to examine and compare.²⁴³

Moreover, hiring and training efforts confront a different problem, which is highlighted by the literature on present bias and hyperbolic discounting. Unlike the person who maintains a consistently high discount rate and repeatedly seeks short-term gratification, the hyperbolic person shares the same long-term, prosocial desires as everyone else. In other words, the hyperbolic prosecutor *wants* to abide by the rules, but she fails to do so when faced with temptation.²⁴⁴ Assuming this long-term desire is genuine, there is no reason to believe that this person would not come off as sincere and law abiding in hiring interviews, as well as in later training sessions. Accordingly, although these sessions might weed out

Pol’y 11, 12 (2011) (explaining differences between external and internal motivations). As Professor Feldman explains later in his article, the distinction between the two sources of motivation is not so clear cut. *Id.* at 18–20.

241. See, e.g., Eric A. Posner, *Law and Social Norms: The Case of Tax Compliance*, 86 *Va. L. Rev.* 1781, 1789–90 (2000) (explaining threat of communal stigma induces compliance). As Professor Posner points out, stigma works only when the conduct itself is fairly rare. *Id.* For a different view, see Dan M. Kahan, *The Logic of Reciprocity: Trust, Collective Action, and Law*, 102 *Mich. L. Rev.* 71, 71–72 (2003) (arguing individuals comply with rules when they see others in their community are also, reciprocally, complying with such rules).

242. See generally Steven Shavell, *Law Versus Morality as Regulators of Conduct*, 4 *Am. L. & Econ. Rev.* 227 (2002) (discussing ways in which both law and morality channel behavior and how each develops).

243. See, e.g., Krawiec, *supra* note 170, at 491 (“[A] growing body of evidence indicates that internal compliance structures do not deter prohibited conduct within firms, and may largely serve a window-dressing function that provides both market legitimacy and reduced legal liability.”). For a similar argument regarding self-regulatory efforts by prisons, see Van Swearingen, *Comment, Imprisoning Rights: The Failure of Negotiated Governance in the Prison Inmate Grievance Process*, 96 *Calif. L. Rev.* 1353, 1381 (2008).

244. McAdams, *Signaling Discount Rates*, *supra* note 213, at 656–57 (explaining unlike purely myopic person, individual who maintains inconsistent discount rates experiences regret after veering from long-term plan).

the worst offenders, it seems unlikely that they would identify individuals particularly prone to temporal inconsistency.²⁴⁵

Harsher organizational reforms, including internal monitoring and enforcement, also offer a mix of benefits and drawbacks. On the one hand, internal oversight addresses temporal inconsistency by speeding up the organization's reaction to misconduct.²⁴⁶ If a prosecutor knows her supervisor will audit her files on a weekly basis, then the internal-compliance effort triggers what Professor Richard McAdams has referred to as a "non-sanction cost"; unlike a formal fine or prison sentence (which is both too contingent and remote), the cost of responding to a supervisor or internal investigation credibly counters the temptation to withhold evidence.²⁴⁷ But spurring this type of oversight is difficult, particularly if the organization itself receives no benefit for self-identifying mistakes and bad behavior.²⁴⁸

Further, excessive oversight creates its own problems. It may, for example, crowd out and undermine intrinsic motivations to comply with law or introduce feelings of procedural injustice among prosecutors who feel they have been unjustly treated by their units or offices.²⁴⁹ Moreover, fine-grained case-by-case supervision might drive away the enjoyment one gets from developing a sense of judgment and responsibility in executing a job well done.²⁵⁰ Accordingly, a micromanaged office might find itself with fewer seasoned veterans who are able or willing to speak up when they notice flaws in cases, or become aware of a supervisor's venal

245. For more on the difficulties of using proxies to identify hyperbolic behavior in hiring situations, see Baer, *Confronting*, *supra* note 237, at 127–28.

246. McAdams, *Present Bias*, *supra* note 30, at 1618–20.

247. *Id.* at 1619–20 (explaining "advancing" costs of crime to earlier point in time through undercover operations more effectively deters present-biased criminals).

248. See generally Jennifer Arlen & Reinier Kraakman, *Controlling Corporate Misconduct: An Analysis of Corporate Liability Regimes*, 72 *N.Y.U. L. Rev.* 687 (1997) (arguing for regime that mitigates liability for corporate entity that attempts to prevent and report crimes to government).

249. On the crowding-out effect, see Feldman, *supra* note 240, at 23–29 (explaining monetary fines can crowd out internal motivations to comply with law); Yuval Feldman & Orly Lobel, *The Incentives Matrix: The Comparative Effectiveness of Rewards, Liabilities, Duties, and Protections for Reporting Illegality*, 88 *Tex. L. Rev.* 1151, 1179–81 (2010) (describing effect as it arose in various experiments). The scholar most responsible for connecting compliance and an individual's notion that he has received procedural justice from his organization is Professor Tom Tyler. See, e.g., Tom R. Tyler, *Why People Obey the Law* 82–83 (1990) (explaining and compiling empirical support for procedural-justice theory of compliance with law). For applications to corporate organizations (from which the prosecutorial-compliance literature has most recently borrowed), see, e.g., Tom R. Tyler, *Promoting Employee Policy Adherence and Rule Following in Work Settings: The Value of Self-Regulatory Approaches*, 70 *Brook. L. Rev.* 1287, 1303–09 (2005).

250. Some of this effect will be determined by the office's "organizational shape": whether it is already hierarchical and whether its prosecutors are primarily veterans or novices. See Levine & Wright, *supra* note 88, at 1151–52 (observing novice attorneys in busy "Metro" office felt they developed business judgment and increased their responsibility despite being assigned to highly supervised groups).

attempt to hide evidence. Other types of reforms—such as no-tolerance policies for unintentional nondisclosures—may sow resentment and reduce employee morale.²⁵¹

The final challenge for organization-based reform is path dependence. Chief prosecutors do not build prosecutors' offices from scratch. Rather, they work with the offices they already have in place.²⁵² Accordingly, an elected or appointed chief prosecutor may encounter practical and procedural limitations to altering the organization's internal structure (by, for example, creating or eliminating units) or hiring practices (by seeking experienced attorneys over newly graduated ones, or vice versa).²⁵³

D. *Scope-Based Reform*

The final reform discussed here is the one that has enjoyed the most widespread support, and the one that appears most likely to succeed on a number of levels: scope. For many advocates, full open-file discovery is the *only* reform sufficient to protect defendants from an all-too-powerful state.²⁵⁴ This urge for uniformity is misguided. Although every prosecutor's office should address and confront its prosecutors' incentives and temptations to violate *Brady*, it is not necessarily the case that every prosecutor's office should employ the same breadth of discovery, particularly an open-file system.²⁵⁵

251. This verification problem arises frequently in the corporate context. See, e.g., Guy Mundlak & Isi Rosen-Zvi, Signaling Virtue? A Comparison of Corporate Codes in the Fields of Labor and Environment, 12 *Theoretical Inquiries L.* 603, 614–15 (2011) (noting adverse consequences of virtuous corporate behavior).

252. In their 2008 article, Professors Miller and Wright contended that the elected or chief prosecutor of a district attorney's office was uniquely positioned to affect norms within an office. Miller & Wright, *supra* note 238, at 177–78 (“[I]n the radically decentralized prosecutorial services of the United States, it is the elected district attorney who contributes most powerfully to the norms that prosecutors pursue.” (footnote omitted)). In a later study of prosecutors, Professor Wright, now writing with Professor Kay Levine, offered a more nuanced account of the chief prosecutor's ability to change office norms, depending on the office's structure and the experience and background of its line prosecutors. Levine & Wright, *supra* note 88, at 1173 (describing pushback chief prosecutor experienced in response to “efforts to impose more oversight after an initial laissez-faire approach”).

253. On the challenges experienced by chief prosecutors in changing their offices, see, e.g., Yaroshesky, *New Orleans Prosecutorial Disclosure*, *supra* note 119, at 916–17 (concluding, based on interviews with Orleans Parish attorneys, that attempts to change office's “culture of nondisclosure” were part of “difficult and ongoing process”). The study conducted by Professors Levine and Wright suggests that success in changing office policies and culture may depend on office structure and employee work experience. Levine & Wright, *supra* note 88, at 1172–73.

254. See Moore, *supra* note 41, at 1332–33 (arguing all jurisdictions should adopt open-file discovery).

255. Some scope-based proposals require, in lieu of open-file discovery, the production of “all” exculpatory information, regardless of its admissibility or materiality.

As the remainder of this section explains, open-file discovery promises too little and too much at the same time. Although it promises more discovery, it does not bind the prosecutor to a course of continuing discovery. Moreover, it imposes on certain categories of prosecutions some real but often underacknowledged costs. The remainder of this section divides in two: The first subsection addresses open-file's temporal blindness, whereas the second explores some of its potential costs.

1. *Timing and the Open-File Policy.* — Open-file regimes raise two related timing questions: First, when should the prosecutor *first* disclose the contents of her file? Second, how can a jurisdiction ensure that the prosecutor places in the literal and metaphorical file all the (mandated) information she receives, particularly later-acquired evidence?

An open-file regime that explicitly requires disclosure early on in the case is helpful because it enables the defendant to review materials before the prosecutor has developed the knowledge or incentive to cheat. A regime that permits the first exchange of files later in the life of the case is inevitably less helpful.²⁵⁶ It not only keeps the defendant's counsel in the dark, but it also exposes the defendant to greater risks of prosecutorial noncompliance. As Part II explained, the longer the case proceeds, the greater the incentive to withhold evidence.

Apart from setting the date of first disclosure, open-file proponents must confront a more fundamental problem: Prosecutors do not assemble an investigative file at a single point in time.²⁵⁷ Rather, evidence filters in fits and starts. Witnesses appear for interviews, remember additional facts, and recant earlier claims. Forensic and documentary evidence is assembled in bits and pieces.²⁵⁸ The prosecutor's general understanding

Professor Green has referred to this as a “middle ground” in discovery reform. Green, *Federal Criminal Discovery Reform*, *supra* note 5, at 650. Since most reform efforts appear to be converging on open-file policies, this Article focuses on those reforms that require the prosecutor to hand over “virtually all information from the prosecution file.” Ellen Yaroshefsky, *Foreword: New Perspectives on Brady and Other Disclosure Obligations: What Really Works?*, 31 *Cardozo L. Rev.* 1943, 1951 (2010).

256. According to Professor Yaroshefsky's survey of various state jurisdictions, the timing of criminal discovery disclosure largely varies by office and prosecutor. Yaroshefsky, *Why Do Brady Violations Happen?*, *supra* note 102, at 14.

257. See *Reams v. Foster*, No. 218-2013-CV-1221, slip op. at 11 (N.H. Super. Ct. Dec. 23, 2013), available at <http://www.courts.state.nh.us/superior/orders/Reams-v-Foster.pdf> (on file with the *Columbia Law Review*) (“It is simply a matter of fact that criminal investigations, properly conducted, may require substantial time, to ensure that the guilty are charged and the innocent are not.”); see also Richman, *Prosecutors and Their Agents*, *supra* note 105, at 762–63 (repeating Nicola Lacey's observation that cases “do not simply come into the world ‘weak’ or ‘strong’” but are instead products of investigative effort (quoting Nicola Lacey, *Introduction: Making Sense of Criminal Justice*, in *Criminal Justice* 1, 13 (Nicola Lacey ed., 1994))).

258. See, e.g., *State v. Menchaca*, No. 33,290, 2013 WL 5970844, at *7 (N.M. Nov. 7, 2013) (observing “long time” needed for “forensic tests to be completed and provided to the parties”); cf. *People v. Wright*, 855 N.Y.S.2d 475, 476 (App. Div. 2008) (holding pros-

of how the crime occurred may also change over time. In all but the simplest cases, prosecutors are likely to become aware of documents, testimony, and important information after some initial disclosure date.²⁵⁹ Indeed, insofar as trial preparation requires the prosecutor to grill the state's witnesses and pick out even the most minor of inconsistencies, the generation of impeachment evidence is all but guaranteed.²⁶⁰ It is this later-acquired evidence that raises the most risk: Will the prosecutor place a later-discovered piece of evidence "in the file"; or procrastinate notifying her adversary of its existence; or use some form of motivated reasoning to convince herself that the information is not truly "part of the file"; or simply hide the evidence with full knowledge that she is contravening her legal obligations?

Readers will note a tension inherent in the above scenario. If an open-file jurisdiction sets the first date of disclosure early, when the prosecutor's incentives to cheat are still low, there is greater likelihood she will include within the file everything within her possession. At the same time, an early first date of disclosure all but ensures that additional evidence will filter in at some additional point and the prosecutor will have to decide whether to alert her adversary of its existence, even assuming the law requires her to do that.

By contrast, if the jurisdiction sets the first disclosure at some later date, it reduces the volume of later-acquired evidence, but increases the overall risk that the prosecutor will develop both the incentive and opportunity to selectively prune her files before her first disclosure; these incentives will exist, even when an open-file regime directs the government to amend the file as new information is discovered or received.²⁶¹ Accordingly, open-file discovery poses something of a temporal Catch-22. It may well improve the defendant's access to information, but, as reformers themselves have recognized, it certainly is not foolproof.²⁶²

2. *Scope-Based Reform's Costs.* — Not all jurisdictions have embraced broad, open-file discovery. Some jurisdictions, most notably those within the federal government, continue to cling to narrow, category-based

ecution's declaration that it was "ready" for trial not "illusory" despite fact it had not yet received forensic evidence and medical records produced at trial).

259. Cassidy, *supra* note 5, at 1470–73 (explaining prosecutors are likely to learn much of details of case file long after initial charging stage).

260. See *id.* at 1471 ("[I]t is the process of trial preparation (carefully scrutinizing witness statements and police reports, preparing exhibits, re-interviewing witnesses, etc.) that prompts prosecutors to notice discrepancies that could be used for impeachment purposes.").

261. See, e.g., Moore, *supra* note 41, at 1383 (describing automated discovery systems that command prosecutors and police to upload new materials to electronic files as they receive information).

262. See, e.g., *id.* at 1384 (agreeing with other scholars' concession that open-file discovery is not "cure-all"); Yaroshesky, *New Orleans Prosecutorial Disclosure*, *supra* note 119, at 939–41 (observing issue of compliance continues with open-file discovery).

discovery rules.²⁶³ One might view these jurisdictions as stubbornly recalcitrant. On the other hand, the federal government's resistance may highlight the need for diverse discovery practices. Open-file discovery may impose no real harm on a drunk-driving case prosecuted in the state system, but it might cause intractable problems for ongoing insider-trading investigations in the federal system, where defendants are likely to be well represented by counsel and able to place subtle pressure on witnesses without explicitly suborning perjury or physically threatening them.²⁶⁴ Moreover, if timing is the key culprit, then alternate reforms may deliver some of open-file discovery's benefits without its attendant costs.

Some reformers deny that open-file discovery imposes *any* costs.²⁶⁵ They either contend that such discovery provides an undeniable benefit for both the government and defense attorneys (since defendants plead guilty more quickly when they see the entire file²⁶⁶), or point to the various jurisdictions where open-file practices have been deployed and conclude that the system "works" because there have been no well-known instances of witness tampering, perjury, or other problems that open-file opponents are wont to cite.²⁶⁷

To address these claims, it is helpful first to compare the efficiency-based arguments for mandatory disclosure of exculpatory and inculpatory information.

Mandatory exculpatory disclosure enables a society to sort the innocent from the guilty.²⁶⁸ Consider the standard agency-cost, efficiency-based argument: The government bears the burden of proving its case, but it also has greater access to evidence (through its law-enforcement powers) and, in many cases, better resources (through taxpayer subsi-

263. See, e.g., Green, *Federal Criminal Discovery Reform*, *supra* note 5, at 642 (noting "limited scope of discovery in federal cases").

264. For more on such tactics, see Kenneth Mann, *Defending White Collar Crime: A Portrait of Attorneys at Work* 6–8 (1985) (discussing information control as defensive strategy in white-collar-crime cases); see also Samuel W. Buell, *Is the White Collar Offender Privileged?*, 63 *Duke L.J.* 823, 885 (2014) (noting amount of "precharge procedure" in white-collar context).

265. See, e.g., The Justice Project, *supra* note 20, at 4 (contending "burden of implementing an open file system should be minimal" and "open-file discovery has the potential to improve efficiency").

266. *Id.* at 9 (predicting open-file discovery will "save states potentially millions of dollars" by causing defendants to plead earlier and by eliminating discovery-based litigation).

267. Simon, *supra* note 108, at 208–09.

268. This Article assumes that society benefits from substantive criminal law, and from the identification of those who have violated such democratically enacted laws. For arguments that society cannot possibly desire prosecutors to prosecute all technically guilty individuals, see Bowers, *supra* note 188, at 1658. Professor Bowers posits that "[m]ost people anticipate something approximating categorical enforcement of very serious felonies but anticipate nonenforcement of some nontrivial number of petty crime incidents." *Id.* (footnote omitted).

dies) than the defendant.²⁶⁹ Although society prefers not to punish the innocent, the prosecutor is an unreliable agent, subject to neither robust market checks nor adequate political oversight.²⁷⁰ Accordingly, to induce the prosecutor to hand over exculpatory evidence, the law makes disclosure mandatory and backs it up with some (admittedly weak) sanctions for disobeying that rule. This, in turn, improves social welfare. Without the mandatory rule, we run the risk that prosecutors will unduly increase the number of false convictions, which in turn will undermine the public's respect for law and leave it vulnerable to those lawbreakers the government has failed to apprehend.²⁷¹

Now consider the argument for mandatory inculpatory discovery, which may comprise nearly everything in the prosecutor's file.²⁷² Whereas exculpatory disclosure unquestionably improves the criminal justice system's sorting function, inculpatory disclosure's overall effect on social welfare is more ambiguous.

Inculpatory discovery can persuade recalcitrant defendants to concede their guilt quickly, thereby freeing up everyone's time for more-contested cases.²⁷³ Even the Department of Justice agrees that generous disclosure can sometimes expedite guilty pleas: "Providing broad and early discovery often promotes the truth-seeking mission of the

269. Green, *Federal Criminal Discovery Reform*, supra note 5, at 648–49 (observing government's "superior access to evidence and information"); Meyn, supra note 111, at 1107–08 (noting information-access advantages of law enforcement compared to prosecutor and prosecutor compared to defendant).

270. See, e.g., Bibas, *Prosecutorial Regulation*, supra note 77, at 960–64 (discussing prosecutors' "unreviewable power and discretion").

271. For an oft-cited argument that wrongful convictions undermine deterrence, see generally Katherine J. Strandburg, *Deterrence and the Conviction of Innocents*, 35 Conn. L. Rev. 1321 (2003).

272. Of course, some of the file's contents may simply be irrelevant. In an interesting recent note, Brian Fox has argued that open-file discovery might harm defendants by encouraging prosecutors to flood resource-deprived defense attorneys with irrelevant materials and therefore "cause more harm than good." Brian P. Fox, Note, *An Argument Against Open-File Discovery in Criminal Cases*, 89 Notre Dame L. Rev. 425, 428 (2013). For examples of cases in which defendants unsuccessfully claimed as much, see *United States v. Warshak*, 631 F.3d 266, 297–98 (6th Cir. 2010); *United States v. Skilling*, 554 F.3d 529, 576–77 (5th Cir. 2009), vacated in part on other grounds, 130 S. Ct. 2896 (2010). In both instances (which involved complex, white-collar crimes and sophisticated defense counsel), the respective appellate courts warned that a prosecutor's intentional attempt to hide exculpatory documents in a sea of irrelevant material would constitute "bad faith" and therefore violate *Brady*. *Warshak*, 631 F.3d at 297–98; *Skilling*, 554 F.3d at 576–77.

273. See Fox, supra note 272, at 430 ("[T]he moral justifications for permitting defendants access to prosecutors' files, combined with the cost savings for prosecutors make open-file discovery a 'win-win.'"); The Justice Project, supra note 20, at 9 ("Automatic, mandatory discovery leads to greater efficiency in the criminal justice system by reducing the need for pretrial discovery motions, thereby saving attorneys, judges, and court personnel time and expense."); Moore, supra note 41, at 1383 & n.383 (recounting, from telephone interviews with counsel in relevant jurisdictions, open-file discovery "appears to be increasing the speed and fairness of plea bargaining").

Department and fosters a speedy resolution of many cases.”²⁷⁴ The problem with this argument, however, is that its proponents tend to ignore its limitations. Discovery may well induce guilty pleas in some cases, but it will not produce expeditious guilty pleas in *all* cases.

A rational defendant confronted by a strong case can concede guilt, bargain with the prosecutor for a less onerous charge, offer cooperation in exchange for leniency, or—and this is the problem—find ways to weaken the government’s case. Just as a criminal can respond to increased sanctions by investing more strongly in detection avoidance, so too can that same criminal respond to a strong prosecution by using legitimate and illegitimate methods to weaken it.²⁷⁵

Testing the holes in an otherwise meritorious case improves social welfare because it forces prosecutors to be more thorough and rigorous in their collection and analysis of evidence. Society does not benefit, however, from all defensive measures. Society is worse off, for example, when inculpatory disclosure enables the defendant to commit or suborn perjury by others, intimidate or persuade witnesses not to testify, or manufacture patently false explanations for the government’s evidence.²⁷⁶ All of these activities contribute to “false acquittals,” the failure to convict defendants who are in fact guilty, and it is wrong not to take these results into account.²⁷⁷

Although society might, as Blackstone famously stated, prefer the acquittal of the guilty to the conviction of the innocent,²⁷⁸ the degree of that preference surely is not infinite, as Professors Ronald Allen and Larry Laudan have pointed out, because false acquittals impose vast

274. Ogden Memo, *supra* note 118.

275. Chris William Sanchirico, *Detection Avoidance*, 81 N.Y.U. L. Rev. 1331, 1337 (2013) (“Sanctioning a given species of violation not only discourages that violation, it also encourages those who still commit the violation to expend additional resources avoiding detection.”); see also Alex Raskolnikov, *Irredeemably Inefficient Acts: A Threat to Markets, Firms, and the Fisc*, 102 Geo. L.J. 1133, 1136 (2014) (labeling criminals’ efforts to “try harder” and avoid punishment for violating antitheft rules as “resistance costs”).

276. Whereas perjury and obstructive practices such as witness intimidation are clearly illegal, the attorney’s manufactured narrative (e.g., an alibi that she realizes is likely untrue) is, at most, an “ethical dilemma.” See, e.g., Manuel Berrélez, Jamal Greene & Bryan Leach, Note, *Disappearing Dilemmas: Judicial Construction of Ethical Choice as a Strategic Behavior in the Criminal Defense Context*, 23 Yale L. & Pol’y Rev. 225, 225–26 (2005) (opening with false-alibi scenario and criticizing courts for not recognizing ethical issues inherent in such scenarios).

277. See Ronald J. Allen & Larry Laudan, *Deadly Dilemmas*, 41 Tex. Tech L. Rev. 65, 68 (2008) (contending error rates must include “the acquittal of, the dropping of charges against, or the failure to prosecute a factually guilty person”); cf. Sanchirico, *supra* note 275, at 1353–54 (arguing defense attorneys’ conduct may impose social costs insofar as such conduct impedes government investigations).

278. See 4 William Blackstone, *Commentaries* *358 (“[T]he law holds, that it is better that ten guilty persons escape, than that one innocent party suffer.”).

harms on the general public.²⁷⁹ *At some point*, society desires a system that convicts guilty individuals, communicates society's condemnation of those who have harmed others, and deters those who might otherwise commit crimes. Even if one is generally displeased with the breadth of the substantive criminal law, with the lack of mercy shown poverty-stricken defendants at sentencing, and with excessive incarceration of young minority offenders, one still should find discomfort in a system that produces an excessive number of false acquittals, since that system inevitably underenforces crime and reduces society's trust in law enforcement.²⁸⁰

These were some of the concerns motivating the Supreme Court majority in *Ruiz*, wherein the Court accepted the government's concern that extensive preplea disclosures might harm witnesses, undercover agents, or informants, or otherwise undermine ongoing investigations.²⁸¹ Information that convinces a defendant to admit his guilt is valuable to society; information that enables him to establish his innocence falsely by lying and threatening others is not. Finally, information that enables one defendant to warn his compatriots that they are investigative targets also harms society.

In sum, mandatory inculpatory disclosure offers a mixed bag. Depending on the type of defendant, the strength of the case, and the defendant's counsel, disclosure may contribute to the criminal justice system's truth-seeking function or it may, as Professors Brown and Robert Mosteller have separately recognized, subvert it.²⁸²

279. Allen & Laudan, *supra* note 277, at 75 ("Imposing an unbridgeable firewall against false convictions is not only impossible . . . [i]t is a project that, if realized, would visit unearned, grievous harm on vast numbers of innocent citizens . . ."); see also *id.* at 78–79 (demonstrating through mathematical example how Blackstone ratio would leave society with nine false convictions, ninety false acquittals, and one correct verdict). Members of the Innocence Movement have themselves argued that wrongful convictions allow actual offenders to roam free, thus implicitly recognizing the costs of false acquittals. James R. Acker, *The Flipside Injustice of Wrongful Convictions: When the Guilty Go Free*, 76 *Alb. L. Rev.* 1629, 1631 (2013) ("When innocents are convicted, the guilty go free. Offenders thus remain capable of committing new crimes and exposing untold numbers of additional citizens to continuing risk of victimization." (footnote omitted)). Professor Acker's empirical analysis of crimes committed by true offenders was cited in a recent amicus brief. Supplemental Amici Curiae Brief of the Innocence Network & American Civil Liberties Union of Washington at 14–15, *State v. Crumpton*, 332 P.3d 448 (Wash. 2014) (No. 88336-0), 2014 WL 414004.

280. See, e.g., Alexandra Natapoff, *Underenforcement*, 75 *Fordham L. Rev.* 1715, 1717 (2006) (describing underenforcement's negative effects on communities).

281. *United States v. Ruiz*, 536 U.S. 622, 631–32 (2002).

282. Brown, *Criminal Adjudication*, *supra* note 1, at 1622 (conceding broad discovery "might increase risks of witness intimidation" and disclosure in some cases "might compromise ongoing investigations" or "facilitate defendant perjury"); Robert P. Mosteller, *Potential Innocence: Making the Most of a Bleak Environment for Public Support of Indigent Defense*, 70 *Wash. & Lee L. Rev.* 1345, 1360 (2013) ("Realistically, [open-file

How should these concerns affect the growth of open-file discovery? Most open-file supporters advise that judicial protective orders can mitigate most of these problems.²⁸³ This too, however, creates a new dilemma. As certain judges become more protective of ongoing cases and investigations, and prosecutors identify those judges who are more amenable to signing protective orders, open-file policies may well morph into a name-only system.

Finally, some reformers observe the dearth of noticeable problems in states that have already adopted open-file discovery.²⁸⁴ Putting aside the familiar problem that obstructive behavior is, by nature, hidden, this argument conveniently ignores our peculiarly redundant criminal justice system of overlapping state and federal jurisdiction.²⁸⁵ One reason a particular state (such as Florida) can afford its defendants broad discovery rights is that Florida (like every state in the nation) is home to *two* criminal justice systems.²⁸⁶ For crimes that can be charged interchangeably under federal or state law, prosecutors can proceed in federal court, thereby protecting sensitive information such as the identities of witnesses, cooperating defendants, or connections with ongoing investigations and related cases.²⁸⁷ If prosecutors are in fact engaging in such sorting, then the argument for universal open-file discovery loses its luster. Moreover, criminal defendants may find their cases “going federal” more often, in many cases to their detriment.²⁸⁸

At bottom, open-file discovery functions as a risk-shifting device.²⁸⁹ It

discovery] can also aid the clearly guilty by permitting fabrication of a defense or witness tampering.”).

283. Prosser, *supra* note 60, at 595–96 (contending judicial orders can protect witnesses in appropriate circumstances).

284. See Simon, *supra* note 108, at 208–09 (“Transparency has turned out to be a beneficial tool in the hands of law enforcement, even as it continues to receive backing from defense attorneys These states do not appear to show any of the calamities predicted by the critics”).

285. See, e.g., Daniel C. Richman, *The Changing Boundaries Between Federal and Local Law Enforcement*, in *2 Criminal Justice 2000*, at 81, 82 (Charles M. Friel ed., 2000), available at https://www.ncjrs.gov/criminal_justice2000/vol_2/02d2.pdf (on file with the *Columbia Law Review*) (describing overlap between state and federal criminal jurisdiction).

286. Federal jurisdictions operate under Rule 16 of the Federal Rules of Criminal Procedure and whichever policies local judges or U.S. Attorneys’ Offices have in place. See *supra* notes 223–228 and accompanying text (criticizing Rule 16).

287. Obviously, despite legal overlap, a number of strategic considerations may impede one jurisdiction’s ability to hand off the case to another. Nevertheless, researchers who study open-file systems might find it fruitful to study court filings in both systems prior to and following the enactment of a broader discovery regime. One would expect federal filings to rise in the wake of a state’s adoption of an open-file policy.

288. An extensive literature describes and critiques the “federalization” of criminal law. See, e.g., Michael J. Zydny Mannheimer, *Cruel and Unusual Federal Punishments*, 98 *Iowa L. Rev.* 69, 74–78 (2012) (tracing growth of federal criminal law).

289. See Brown, *Criminal Adjudication*, *supra* note 1, at 1629 (“Broad discovery rules require prosecutors to seek a judge’s order or defendant’s consent to restrict discovery.

transforms the risk of nondisclosure from the defendant into a risk of disclosure to be borne by the government and its witnesses. Even when a court permits a prosecutor to redact the names of certain witnesses upon a showing of good cause (and one can easily envision litigation over this point alone), an open-file system increases the likelihood that (a) the identities of vulnerable victims and witnesses will be revealed, either because a prosecutor accidentally misses a redaction or a court decides that there is no good cause for withholding the name, and (b) defendants or their allies may pressure witnesses to recant their stories. Whatever the risk of (a) may be, it is not zero, and a single error could result either in the accidental leak of confidential information or in a very salient case of witness tampering, thereby dampening the community's willingness to provide information in future cases.²⁹⁰

None of the foregoing is to deny the value of open-file policies. Where cases are fairly straightforward and evidence relatively immune to alteration, prosecutors should freely disclose their files in order to reach quicker and more efficient settlements.²⁹¹ For some jurisdictions, most or all of the cases processed by the local prosecutor's office may look more or less like this prototype. For others, open-file is likely a political non-starter. And finally, for *all* jurisdictions, open-file fails to address the prosecutor's changing and inconsistent preferences.

IV. TYING THE PROSECUTOR TO THE MAST: THE TEMPORAL BENEFITS OF MANDATORY EARLY-DISCLOSURE SCHEMES

As the discussion in Part III established, neither *Brady* nor conventional reform efforts fully address the absolute and relative timing challenges discussed in Part II. Moreover, the most promising and popular of these reforms—extremely broad disclosure regimes encapsulated by the “open-file” label—may impose costs on jurisdictions whose investigations are particularly vulnerable to interference and misconduct.

Accordingly, this Part embraces and highlights reforms that can be best tailored to address the prosecutor's dynamic and temporally inconsistent preferences. It begins first by reviewing the cognitive-psychology literature, which recommends the “precommitment device” for those

Narrow discovery rules, in contrast, require defendants to seek prosecutors' consent for broad disclosure.”).

290. For instructive examples of retaliation, see Caren Myers Morrison, *Privacy, Accountability, and the Cooperating Defendant: Towards a New Role for Internet Access to Court Records*, 62 *Vand. L. Rev.* 921, 956–58 & n.213 (2009) (describing website from which individuals could obtain personal information about “rats” and “snitches,” as well as other instances of retaliation documented in court cases).

291. The Ogden Memo itself suggests as much. See Ogden Memo, *supra* note 118 (stating department policy requires broader disclosures than mandated by law to promote “truth-seeking mission of the Department” and foster “speedy resolution of many cases”).

overly prone to act upon their desire for immediate gratification.²⁹² Precommitment devices assist individuals in adhering to their socially desirable goals even when short-term benefits tempt them to diverge from their original plans. They do this either by foreclosing options in advance of a known event, or by accelerating or delaying certain costs and benefits.

After examining precommitment devices generally, this Article's final section promotes a specific reform that is best poised to address criminal discovery's timing problem. This proposed reform—intentionally presented here only as a thumbnail sketch—could be implemented either through a statute or, with regard to federal prosecutions, through the enactment of a Federal Rule of Criminal Procedure.

As explained in more detail below, the reform, similar in some respects to checklist-style reforms advocated elsewhere,²⁹³ would require the prosecutor to disclose at a very early stage in the prosecution the various *categories* and *repositories* of evidence that she has sought and expects to use at trial. In terms of scope, the disclosure itself would be somewhat narrow: The prosecutor would not have to *name* her confidential informants, but she would be required to disclose the *existence* of any confidential informants. Similarly, she would not have to disclose the names of her lay witnesses, but she at least would have to say if her investigators had interviewed such witnesses. Finally, she might not have to turn over the entire contents of the files held by every investigative agency that had worked on the case,²⁹⁴ but she would be required to

292. Professor R.H. Strotz first used the term when he theorized that an individual prone to spending but with a long-term interest in saving would “precommit his future behaviour by precluding future options” so that his conduct would “conform” to his long-term “optimal plan.” Strotz, *supra* note 35, at 165 (internal quotation marks omitted). Scholars have broadened the term to include not just devices that reduce options, but also devices that reduce access to information, as well as devices known to speed up certain costs or block certain benefits. See Stephen M. Bainbridge, *Precommitment Strategies in Corporate Law: The Case of Dead Hand and No Hand Pills*, 29 *J. Corp. L.* 1, 4–5 (2003) [hereinafter *Bainbridge, Precommitment Strategies*] (articulating types of commitment strategies); John A. Robertson, “Paying the Alligator”: Precommitment in Law, Bioethics, and Constitutions, 81 *Tex. L. Rev.* 1729, 1730 (2002) (explaining precommitment works by “removing certain options from the feasible [decision] set, by making them more costly or available only with a delay, and by insulating [decisionmakers] from knowledge about their existence”).

293. Although narrower, the proposal shares some attributes with the mandatory-disclosure regime advocated by the ABA and Pew Trust. See *The Justice Project*, *supra* note 20, at 2 (citing ABA recommendations and advocating “rules requiring mandatory and automatic disclosure of certain specified information”). However, unlike the ABA’s proposal, it does not mandate open-file discovery and therefore enables the prosecutor to protect the integrity of ongoing investigations and shield witnesses’ identities, if her jurisdiction so desires.

294. Thus, whereas the Ogden Memo directs the federal prosecutor to internally determine which agencies have worked on a case, the proposal here would require the prosecutor to immediately disclose this information, in writing and in court, upon filing of charges. *Ogden Memo*, *supra* note 118.

disclose the names of all agencies believed to possess information relevant to the prosecution and investigation of the case.

These disclosures, to be made in writing, filed in open court, and updated as the case progressed through the criminal justice system, would be useful to jurisdictions that employed either broad or narrow discovery regimes. Indeed, this is perhaps the reform's greatest strength, as it would allow jurisdictions with widely different needs to tailor the scope of their prosecutors' discovery obligations, while adopting a uniform commitment device.

A. *Temporal Reform in the Abstract: The Value of Precommitment*

Individuals and organizations have, over the years, been quite adept at devising mechanisms that control and disable their short-term urges, thereby allowing them to follow through on their more desirable long-term goals. These devices work either by devising penalties that occur exactly at the moment of temptation, or instead by foreclosing in advance certain options.²⁹⁵

Consider the speed bump.²⁹⁶ It does not remove a driver's ability to drive her car at significant speeds. It does, however, greatly increase her discomfort in driving at such speeds, and it threatens significant immediate damage to her car. To that end, it differs fundamentally from a sign that warns the driver that she may be subject to speeding fines. Whereas the driver discounts both the likelihood that a cop will single her out and pull her over, she does not discount the immediate cost—to herself and to her car—of driving too quickly over the speed bump.²⁹⁷

Other devices foreclose options.²⁹⁸ Ulysses's mast-tying remedy is one of the most famous examples of precommitment, but many other examples exist across numerous contexts.²⁹⁹ Christmas savings clubs, nonre-

295. See Bainbridge, *Precommitment Strategies*, *supra* note 292, at 4 (describing and categorizing various commitment strategies people adopt in order to curb self-control problems). See generally Jon Elster, *Don't Burn Your Bridge Before You Come to It: Some Ambiguities and Complexities of Precommitment*, 81 *Tex. L. Rev.* 1751 (2003) [hereinafter *Elster, Don't Burn Your Bridge*] (discussing various difficulties in devising efficient commitment devices).

296. See Leandra Lederman, *Statutory Speed Bumps: The Roles Third Parties Play in Tax Compliance*, 60 *Stan. L. Rev.* 695, 696 (2007) (praising speed bump's qualities in constraining speeding).

297. Readers will note, however, that for the few drivers who decide to speed anyway, the likelihood of harm—to the driver and others—actually increases.

298. For a nontechnical discussion, see generally Daniel Akst, *The Odysseus Option*, *Slate* (Jan. 21, 2011, 12:46 PM), http://www.slate.com/articles/business/moneybox/2011/01/the_odysseus_option.html (on file with the *Columbia Law Review*).

299. See Homer, *The Odyssey* 447 (A.T. Murray trans., Harvard Univ. Press 1919) (n.d.) (describing Ulysses's efforts to avoid falling prey to Siren's song by having sailors tie him to ship's mast); see also Robertson, *supra* note 292, at 1731 (citing Ulysses's mast-tying remedy as example of precommitment device that forecloses options); Adam M. Samaha, *Dead Hand Arguments and Constitutional Interpretation*, 108 *Colum. L. Rev.* 606, 655–56

fundable gym memberships, retirement plans, and numerous other devices all force individuals to adhere to their long-term goals.³⁰⁰

The criminal justice system also features precommitment devices. The federal “Speedy Trial Act” requires the defendant’s trial to proceed no more than seventy days from the date of the filing of an indictment or information, absent certain specific automatic and discretionary exceptions described in the Act.³⁰¹ We normally think of this statute as one that promotes judicial efficiency and protects defendants from excessively long waiting periods.³⁰² The Act, however, also counteracts the prosecutor’s short-term inclination to delay the resolution of a case. If the Speedy Trial Act’s clock starts ticking at the moment charges are filed, then prosecutors retain less ability to seek repeated continuances.

The same can be said of a number of other procedural rules. Mandatory minimums and determinate sentencing schemes are presumed to prevent judges from sentencing defendants too leniently.³⁰³ But one can also conclude that the same laws counteract the prosecutor’s short-term desire to plead cases out too “cheaply.”³⁰⁴

Readers no doubt have picked up on the fact that the foregoing devices benefit primarily the government’s interests and not those of criminal defendants. That the devices work in only one direction is undoubtedly a reflection of the political economy of criminal justice, which favors victims and witnesses more than defendants and would-be offenders.³⁰⁵

(2008) (“Ulysses clogged the ears of his crew with wax so they would not respond to songs of the deadly Sirens, but ordered himself bound to the mast so he could enjoy them without physical power to stray from his predetermined course.”). See generally Elster, *Ulysses Unbound*, supra note 39 (examining benefits of and philosophical justifications for precommitment devices).

300. See, e.g., Deborah M. Weiss, *Paternalistic Pension Policy: Psychological Evidence and Economic Theory*, 58 U. Chi. L. Rev. 1275, 1307–08 (1991) (describing Christmas savings clubs); Daniel Akst, *Commit Yourself*, Reason.com (Apr. 18, 2011, 12:00 PM), <http://reason.com/archives/2011/04/18/commit-yourself> (on file with the *Columbia Law Review*) (offering layperson explanation of precommitment devices).

301. 18 U.S.C. §§ 3161–3174 (2012); see also Galanter, supra note 128, at 492 n.64 (summarizing Speedy Trial Act’s provisions).

302. Cf. U.S. Const. amend. VI (“In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial . . .”).

303. See, e.g., Erik Luna & Paul G. Cassell, *Mandatory Minimalism*, 32 *Cardozo L. Rev.* 1, 11 (2010) (setting forth supporting arguments for mandatory minimums).

304. This is, of course, just one way of looking at mandatory minimums. The intent here is not to ignore the voluminous criticism of this tool, nor the more conventional claim that legislators enacted these statutes in response to judges who ostensibly sentenced offenders too leniently.

305. See William J. Stuntz, *The Pathological Politics of Criminal Law*, 100 *Mich. L. Rev.* 505, 506–07 (2001) (arguing criminal law is overly broad and primarily serves to empower prosecutors); William J. Stuntz, *The Political Constitution of Criminal Justice*, 119 *Harv. L. Rev.* 781, 781–82 (2006) (“America’s politics of crime is indeed diseased . . . Overcriminalization, excessive punishment, racially skewed drug enforcement, overfunding of

One might conclude from the foregoing the implausibility of promulgating discovery-related precommitment devices that favor defendants. But public opinion suggests otherwise, particularly in light of well-publicized instances of prosecutorial misconduct and overturned wrongful convictions.³⁰⁶ Indeed, head prosecutors themselves have at least voiced a greater interest in the use of regulatory mechanisms to encourage greater compliance with the law.³⁰⁷

With this atmosphere in mind, the following section sketches a regime that mandates early disclosure of limited information upon the filing of criminal charges. Concededly, numerous jurisdictions already require certain exchanges of information early on in the prosecution of a given case.³⁰⁸ The proposal below, however, explicitly attempts to use early disclosure as a precommitment device, taking advantage of the prosecutor's early-stage desire to abide by the rules, while also recognizing later-stage pressures to flout them.

B. *Temporal Reform on the Ground: Mandatory Early Disclosure*

Consider a legislatively enacted obligation (either a statute or rule of criminal procedure) that commanded a prosecutor, immediately after the filing of a grand jury indictment, to provide both the court and the defendant a written, certified description of (a) the types of evidence already in the prosecutor's possession, including materials the prosecutor had not yet elected to use in her case-in-chief; (b) the names of government agencies and law-enforcement agents known to possess relevant evidence or information regarding the case; (c) the types of evidence

prisons and underfunding of everything else—these familiar political problems are as much the consequences of constitutional regulation as the reasons for it.”).

306. See Klein, *Monitoring the Plea Process*, supra note 40, at 563 (citing “public sentiment” and changed views of wrongful convictions that might provide “proper climate” for reform).

307. Cardozo Law School's 2010 symposium on wrongful convictions and *Brady* violations, at which Charles Hynes, the Kings County District Attorney, was in attendance and spoke, perhaps demonstrates this changing attitude. See *New Perspectives on Brady*, supra note 6, at 1948 (noting District Attorney Hynes “hoped [participants] would learn . . . how to reduce unlawful and unethical nondisclosures”). Nevertheless, reformers continually cite repeated resistance among prosecutors to criminal discovery reforms. See, e.g., Bruce Green, *Prosecutors and Professional Regulation*, 25 *Geo. J. Legal Ethics* 873, 885 (2012) (describing National District Attorneys Association amicus brief in discovery case that “challenged the very legitimacy of professional conduct rules insofar as they impose obligations on prosecutors beyond those established by the Constitution, statutes, or other law”).

308. Brown, *Criminal Adjudication*, supra note 1, at 1623 (“Nearly half of the states, in contrast to the federal rule, require pretrial disclosure of witness names, addresses, and prior statements . . .”). Elsewhere, Professor Brown cites checklist practices within certain prosecutor's offices, which may also undergird the regime proposed here. See Darryl K. Brown, *Defense Counsel, Trial Judges, and Evidence Production Protocols*, 45 *Tex. Tech L. Rev.* 133, 146–47 & n.85 (2012) [hereinafter Brown, *Defense Counsel*] (describing examples of such checklists and advantages to their use).

sent out for forensic testing; and (d) the existence and number of lay witnesses with relevant information regarding the case. Why and how would this regime solve the timing problems explored in Part II of this Article?

Assume this regime—dubbed “mandatory early disclosure”—required the prosecutor to disclose the information listed above to the court as well as the defendant’s attorney. The document, which would follow the prosecutor throughout the length of the case (and attach to any new prosecutor who rotated onto the case), would therefore function as a kind of “checklist,” which a number of offices already use internally.³⁰⁹ The process as outlined here, however, would include two outside features: disclosure in writing to the court (under oath) and to the defendant’s attorney. According to the precommitment literature, this kind of formal, external oversight is essential. Effective devices restrain short-term temptations, in part because they recruit stronger parties to intervene when those temptations appear likely to overwhelm genuine prosocial desires.³¹⁰ Finally, the proposal would also include a recurring obligation: At certain stages of the case, the court would be required to ask, and the prosecutor would be required to aver, that the information listed in the form was accurate and complete.

Notice how this proposed regime includes the basic components of a precommitment device: It requires prosecutors to disclose information automatically and early, and it recruits the judiciary’s oversight in a useful yet relatively narrow manner. It is one thing to say that courts should exercise greater oversight over the criminal discovery process.³¹¹ It is quite another to implement that desire in a way that leaves a trial court’s workload manageable. One of the benefits of this type of regime is that it channels the court’s oversight;³¹² instead of asking the court generally to ensure that the prosecutor is not abusing her power, it offers the court a

309. Cf. Yaroshesky, *New Orleans Prosecutorial Disclosure*, supra note 119, at 934 (describing New Orleans’s use of “*Brady* affidavits,” which prosecutors sign, affirming their obligation to turn over exculpatory material). On the value of checklists generally, see Lissa Griffin, *Pretrial Procedures for Innocent People: Reforming Brady*, 56 *N.Y.L. Sch. L. Rev.* 969, 1000 (2011–2012) (stating checklists make compliance easier for prosecutors and “put[] the prosecutor on notice that certain information is important to the defense”); Scheck, supra note 229, at 2239–40 (arguing checklists “help people do their jobs more efficiently . . . and facilitate effective supervision and review”).

310. See, e.g., Elster, *Don’t Burn Your Bridge*, supra note 295, at 1759 (explaining, through adoption of precommitment device, “individual can enlist others in the effort to bind himself”).

311. See, e.g., Brown, *Criminal Adjudication*, supra note 1, at 1632–34 (lauding judiciary’s “fact-intensive, substantive judicial involvement in [civil] pretrial litigation” and arguing for expansion of oversight in criminal context).

312. For that reason, the device is preferable to the global “ethical rule order” that Scheck and Gertner have advocated in criminal cases. See Scheck & Gertner, supra note 51, at 40–41 (advocating for “ethical order” that judge would impose at beginning of every criminal case, which arguably would subject attorneys to disciplinary sanctions if they intentionally withheld *Brady* evidence).

specific mechanism to ensure that the prosecutor is not purposely or negligently keeping the defendant from reviewing exculpatory evidence.³¹³ By the same token, it channels the *prosecutor's* efforts; rather than exhorting her with vague claims to act ethically or do justice, it asks her for explicit information (*what* kind of information do you expect to have and *where* is it located) at a moment when she is least likely to lie.

Unlike open-file discovery, the proposal does not mandate the disclosure of some quantum of evidence. Rather, it compels, at a fairly early point in the prosecution, the disclosure of all known *repositories* of such evidence. That is, the prosecutor must disclose the *type* of evidence in her files and the *general location* of that evidence, be it the federal agency, or the state forensic laboratory.

The early-disclosure obligation is valuable precisely because it functions as a precommitment device. By eliciting information in the form of on-the-record attestations from the prosecutor at an early stage in the prosecution, it forecloses the prosecutor's option of ignoring or hiding evidence as the case progresses. Having told the defense—and the court—that she had sought forensic analysis, or had made a request for historical files, or subpoenaed documents from a bank or credit-card company, the prosecutor can no longer hide these pieces of evidence when they surface months or weeks later.

Moreover, the repositories approach effectively enables the defense to challenge discovery practices as the case unfolds, to ferret out information independently, and to seek confirmation and support from the court when it appears the prosecutor is flouting her substantive discovery obligations. As courts become more adept with reading such disclosures, it may also enable judges to raise questions regarding underlying discovery lapses. For example, a mandatory early-disclosure form for a standard narcotics or robbery case that looks suspiciously shorter than forms filed in similar cases might alert either a court or defense attorney either that a prosecutor is playing fast and loose with her discovery obligations, or that she does not understand them.

Finally, the disclosure regime counteracts the prosecutor's present bias by delaying gratification.³¹⁴ For example, a legislature might require that prior to accepting a guilty plea or sending a case to the jury, the court must question the prosecution on each of the categories of evi-

313. This proposed regime shares a number of the benefits that Professor Brown attributes to various evidentiary and procedural "protocols." See Brown, Defense Counsel, *supra* note 308, at 147 (describing protocols that "specify best practices, remind individuals of multiple important actions they may otherwise overlook . . . , and help to add cross-checks or redundancy into systems that are vulnerable to failures due to lapses of a single actor"). Best-practices manuals and checklists, however, do not necessarily bind prosecutors in the same way as the formal proposal laid out in this Article.

314. On the value of devices that delay gratification and impose cooling-off periods, see Bainbridge, Precommitment Strategies, *supra* note 292, at 4.

dence she had listed in her mandatory early-disclosure filing.³¹⁵ It might further require her—or her successor, should there be turnover during the pendency of a given case—to certify in open court that she had produced all exculpatory evidence within those categories.

Notice, then, how the regime specifically addresses the *Brady* violation's temporal determinants: At a relatively early stage in the case, when she is least likely to cheat, the prosecutor provides information, in writing and under oath, to the court and to defense counsel.³¹⁶ This declaration alone renders it more difficult for the prosecutor to shirk her duty to collect exculpatory evidence from government parties or hide government witnesses. The regime accordingly imposes a “nonsanction cost” on the prosecutor insofar as it requires her to experience the discomfort of lying to a judge and risking a contempt citation or worse.³¹⁷

More importantly, at some later stage, when switching costs have increased and the prosecutor is more likely to yield to temptation, a new, targeted enforcement device appears in the form of a recurring certification requirement.³¹⁸ The certification requirement, in turn, causes the prosecutor to incur a much stronger nonsanction cost (making false statements to a court) and to delay the gratification of an imminent guilty plea or trial verdict.

As readers may quickly surmise, this sketch leaves unanswered several questions. First, it does not explicitly set forth the exact remedy for failing to disclose information in this early-disclosure form, although an intentional violation of the disclosure rule presumably would be tanta-

315. Mandatory early disclosure can coexist quite nicely with the proposals others have made for reforming the plea process. See, e.g., Klein, *Monitoring the Plea Process*, supra note 40, at 564–68 (proposing mandatory “pre-plea conference” for federal criminal jurisdictions). It also builds upon proposals that others, such as Barry Scheck and Nancy Gertner, have made regarding the use of pretrial “ethical rule orders.” Scheck & Gertner, supra note 51, at 40 (recommending pretrial “ethical rule order” explicitly citing prosecutor’s obligation to adhere to jurisdiction’s version of Rule 3.8(d)).

316. The proposal’s requirement that the prosecutor provide specific information in writing and under oath distinguishes it from Professor Klein’s proposed preplea discovery conference, although the two proposals theoretically could work in tandem. See Klein, *Monitoring the Plea Process*, supra note 40, at 564–67 (recommending a nonwaivable preplea offer conference designed to increase transparency and record the investigation of defense counsel and discovery offered by prosecution).

317. Nonsanction costs are those costs that a criminal must pay upfront before he receives the benefits of his crime (e.g., expending effort to avoid detection). See McAdams, *Present Bias*, supra note 30, at 1613 (defining “nonsanction costs” as “costs taken to lower the probability of detection”). Nonsanction costs are preferable to “ordinary” sanctions because they occur in the same time period as the benefits that an offender enjoys from a given type of misconduct. *Id.* at 1619–20.

318. A targeted sanction is one that surfaces at exactly the moment the individual is tempted by a benefit. It is therefore different from the ordinary penalty that occurs at some later time, after an offense has been detected and proven. On the differences between “ordinary” and “targeted” sanctions, see Baer, *Confronting*, supra note 237, at 109–15.

mount to lying to a court, and would therefore trigger professional and potentially worse sanctions. Other types of misbehavior—providing overly broad information or accidentally omitting information—could be dealt with on a case-by-case basis. One could, for example, create a presumption that evidence would not be admitted at trial if it appeared that the repositories of such evidence were not appropriately flagged in the prosecutor’s automatic-disclosure document. This presumption would itself create litigation-based costs and benefits, as prosecutors and defense counsel devote limited court resources to arguing over the completeness or timeliness of the prosecutor’s disclosures. Nevertheless, a well-designed presumption might discourage upfront gaming by prosecutors.³¹⁹

The proposal also leaves unanswered discovery’s proper scope. This feature is intentional. Mandatory early disclosure standardizes the “when” question of criminal discovery while leaving the “what” question relatively untouched, except that prosecutors must identify—fairly early in the life of a case—information regarding where evidence is located, who has it, and who is expected to provide it in the near future. Such flexibility allows the proposal to coexist easily with broad or narrow discovery. For those jurisdictions that have already adopted open-file discovery, mandatory early disclosure takes account of the fact that prosecutors receive and develop evidence some time after initial exchange of discovery, and it protects defendants in jurisdictions where the initial exchange of evidence occurs fairly late in the process. If the prosecutor has already disclosed that she has sought forensic testing of semen in a rape case, for example, she cannot as easily withhold such evidence from “the file” when it becomes available several weeks before trial. And if she has revealed at the beginning of the case that she is working with three different regulatory agencies, she cannot as easily bury the exculpatory computer files of a witness who was interviewed by one of those agencies. Thus, mandatory early disclosure supplements open-file discovery by forcing prosecutors to disclose information *early* and *often*—and by recruiting the courts to supervise and oversee such disclosures.

At the same time, mandatory early disclosure can coexist nicely with jurisdictions that maintain narrower discovery rules, such as federal jurisdictions that hew closely to Rule 16’s category-bound discovery regime.³²⁰ Unlike an open-file rule, the disclosure proposal contained here does not require the prosecutor to hand over the entirety of her case file, which may contain sensitive information relevant to ongoing investigations. Nor does it require her to disclose the names of crucial lay witnesses. Accordingly, even if a jurisdiction rejects open-file discovery on the grounds that it may jeopardize the safety of its witnesses or the integrity of its ongoing

319. It goes without saying that neither this proposal—nor any reform—would completely eliminate intentional misconduct by truly venal prosecutors.

320. On the narrowness of Rule 16, see *supra* notes 223–228 and accompanying text.

investigations, that jurisdiction still can implement the type of early-disclosure reform described in this section. For federal jurisdictions, the easiest way to do this would be to promulgate a new rule of criminal procedure. (One might dub it “Rule 16a.”)

Concededly, early-disclosure devices are not by any means perfect. As an initial matter, the proposal outlined here focuses explicitly on prosecutors; it does not go so far as to address the pathologies that cause police officers and law enforcement agents to hide exculpatory evidence. Moreover, experience with mandatory disclosure in the civil-disclosure context (quite different from the device outlined here) has been mixed. But the proposal’s commitment-oriented benefits cannot be ignored; a device that focuses on timing enables jurisdictions to differentiate their underlying disclosure obligations, while still imposing a universal early-commitment device on prosecutors.

CONCLUSION

We do not know how many *Brady* violations occur annually, and we may never know. We do know, however, that violations have reached a level of salience that shows little sign of subsiding. Politicians across multiple jurisdictions have begun to introduce and champion substantial alterations to criminal discovery regimes that previously imposed only the narrowest of disclosure obligations on prosecutors.

Although reformers seek a mix of changes, their most popular reforms arise out of three models of misconduct: agency costs, bounded rationality, and organizational dysfunction. There is much to learn from these models; collectively, they illuminate a lot of what is wrong with the criminal justice system. Still, they fail to incorporate the variable that researchers increasingly recognize as crucial to understanding noncompliance: timing.

Timing helps us understand why some individuals obey rules, and why others do not. It explains changes in behavior and inconsistencies between what we say we want to do and what we actually do when faced with an immediate payoff or loss. It elucidates the success of some reforms and helps us predict the failures of others.

By examining timing’s effect on prosecutorial compliance, this Article initiates new areas of analysis for scholars, empirical researchers, and policymakers. Those who examine the empirical causes of *Brady* violations should expand their research to include variables such as the timing of the prosecutor’s discovery in relation to the disclosure of exculpatory evidence, and not just whether such disclosure occurred.³²¹ Those

321. For example, a recent study attempts to isolate the relevant predictors of wrongful convictions by matching wrongful conviction cases with an otherwise similar group of “near miss” cases. Gould et al., *supra* note 98. Among the factors they cite as contributing to *Brady* violations are “weak facts” on the prosecution side. *Id.* at 501–02. At one point in

who study office structure and social differences might also wish to consider the various commitment devices various supervisors already use in order to shore up low willpower among themselves and more junior employees.

Finally, reformers themselves should incorporate temporal analysis more firmly into their agendas for change. Temporal analysis can illuminate the causes not just of *Brady* violations, but also of other types of prosecutorial misconduct. Mandatory early disclosure represents but one method of improving prosecutorial disclosure; it need not be the sole or primary device that performs this function. Outside the prosecutorial context, precommitment devices abound and cater to different tastes.³²² There is no reason to believe that society lacks the will or ability to develop these devices in the criminal justice context. To do that, however, reformers must pay closer attention to timing. The sooner we do that, the better off we will be.

their study, the authors suggest that a number of these weaknesses were noticeable at the charging stage, in that prosecutors “accept weak cases with the idea of ‘sorting it out later.’” *Id.* at 509. For future analysis, it would be helpful to know when *prosecutors* recognized these weaknesses and recognized that other alternatives (charging someone else, pleading the case out to a lesser charge, revising the theory of guilt) were unavailable.

³²². See *supra* note 300 and accompanying text (describing use of devices in other contexts).

