

# Cheating the Constitution

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## I. INTRODUCTION

It is constitutional black letter law. To obtain a criminal conviction, the prosecution must prove every element of the offense, by proof beyond a reasonable doubt. The Constitution entitles a defendant to confront and cross-examine all witnesses against him. Yet, for the past thirty years, state legislatures have quietly approved laws that cheat the Constitution. These laws fly, undetected, beneath the constitutional radar, violating fundamental constitutional rights.

Although other constitutional cheats abound, this Article examines one archetypical example of constitutional cheating: statutes that permit state prosecutors to use hearsay state crime laboratory reports, in lieu of live witness testimony, to prove essential elements of a criminal case.<sup>1</sup> This Article characterizes these statutes as forensic *ipse dixit* statutes, because the bare assertion of an uncross-examined state witness becomes, *ipse dixit*, an adjudicated fact.<sup>2</sup> The forensic *ipse dixit* statutes deprive defendants of the right to confrontation and relieve the government of its burden of proof. These statutes also discourage vigorous defense advocacy, promote carelessness and fraud in crime laboratories, and increase the likelihood of wrongful convictions and sentences.

Part II of this Article provides an overview of the nationwide forensic *ipse dixit* phenomenon. Part III addresses the unwarranted presumption of reliability that legislatures and courts often accord to forensic reports. Parts IV and V, respectively, discuss how the forensic *ipse dixit* statutes violate the Confrontation and Due Process clauses of the United States Constitution. Part VI offers observations about what constitutional cheating reveals about our criminal justice system.

Of course, there is also a story:

In December of 2002, an audit disclosed major discrepancies in the forensic outcomes alleged by the Houston Police Department's

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1. As discussed in Part II, this type of legislation governs forensic testing designed to "match" evidence to a particular individual and forensic testing designed to "identify" evidence as containing, in whole or in part, a particular chemical or physical substance. Particularly in controlled substance and DUI cases, the forensic proof-by-certificate statutes raise relatively straight-forward questions about reliability, confrontation, and the proof of elements.

2. BLACK'S LAW DICTIONARY 743 (7th ed. 1999).

crime laboratory (“HPD”).<sup>3</sup> Events in Texas soon snowballed, disclosing widespread incompetence, carelessness, and fraud in laboratories across the state.<sup>4</sup>

Nevertheless, in April of 2003, without public fanfare, a Texas state senator proposed a forensic *ipse dixit* statute that would permit prosecutors to substitute state crime laboratory certificates for live testimony. The certificate would prove both the chain of custody for the tested substance and the truth of the state laboratory’s conclusions, without requiring a state crime examiner to even appear in court for confrontation or cross-examination.<sup>5</sup>

The Texas crime laboratory scandal continued to grow. The Houston District Attorney’s office explicitly acknowledged the HPD’s unreliability. The office refused to prosecute the hundreds of HPD-tested drug cases pending on its docket unless an independent and accredited crime laboratory conducted the forensic analysis.<sup>6</sup> In August of 2003, Texas’s Department of Public Safety closed the HPD toxicology division.<sup>7</sup> Shortly thereafter, the FBI announced that it would no longer accept forensic testing reports from Texas laboratories.

Nevertheless, in September of 2003, the Texas forensic *ipse dixit* statute became law; the State is now permitted to prove its crime laboratory’s forensic conclusions without ever calling a laboratory witness to testify and undergo cross-examination.<sup>8</sup> Instead, an unsworn laboratory report establishes the truth of the forensic report.

This forensic *ipse dixit* statute is not an absurd anomaly of Texas law. Nearly every state in the union has enacted a version of this forensic *ipse dixit* statute.

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3. See Mike Glenn, *Auditors find problems with HPD’s crime lab*, HOUSTON CHRONICLE, Jan. 23, 2003, at A19 (reporting results of an audit conducted by the Texas Department of Public Safety on the Houston Police Department’s DNA and serology laboratory); see also Mike Glenn, *House hearings on HPD crime lab to focus on audit*, HOUSTON CHRONICLE, Mar. 3, 2003, at A15 (discussing measures to be taken by the House Committee to investigate and resolve audit findings).

4. *Id.*

5. Criminal Jurisprudence Committee Report, Tex. Bill Analysis, 2003 Regular Sess., S.B. 1129.

6. Roma Khanna & Steve McVicker, *‘Trace’ drug cases on hold*, HOUSTON CHRONICLE, July 3, 2003, at A1.

7. See Glenn, *Auditors find problems with HPD’s crime lab*, *supra* note 3 (reporting results of an audit conducted by the Texas Department of Public Safety on the Houston Police Department’s DNA and serology laboratory).

8. TEX. CODE CRIM. PROC. ANN. art. 38.41 (Vernon 2006). The statute excludes from its ambit latent fingerprint examinations and certain breath analyses related to DUI offenses.

## II. THE FORENSIC *IPSE DIXIT* PHENOMENON

The vast majority of jurisdictions in the United States authorize the state to prove its forensic allegations by relying upon a forensic certificate in lieu of live testimony.<sup>9</sup> Only six jurisdictions have no forensic *ipse dixit* statute.<sup>10</sup> Sixteen states make a forensic certificate proof of its forensic conclusions about matters more

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9. Some jurisdictions authorize the introduction of a forensic certificate in lieu of live testimony in the limited context of proving blood alcohol content in DUI prosecutions; others authorize its use only to prove the chemical composition of controlled substances in drug prosecutions. A third group of jurisdictions permits the use of a certificate in both of the aforementioned situations, and a fourth group provides for blanket admissibility of forensic reports in any type of prosecution. Forty-five jurisdictions allow admission of a forensic certificate in at least one such type of prosecution: Alabama, ALA. CODE § 12-21-300 (2006); Alaska, ALASKA STAT. § 12.45.084 (2006); Arizona, ARIZ. REV. STAT. ANN. § 36-254 (2006); Arkansas, ARK. CODE ANN. § 5-64-707 (2006), ARK. CODE ANN. § 12-12-313 (2006); Colorado, COLO. REV. STAT. § 16-3-309(5) (2006); Connecticut, CONN. GEN. STAT. § 21a-283(b) (2006); Delaware, DEL. CODE ANN. tit. 10, §§ 4330-32 (2006); District of Columbia, D.C. CODE ANN. § 48-905.06 (LexisNexis 2006); Florida, FLA. STAT. ANN. §§ 316.1934, 327.354 (West 2006); Idaho, IDAHO CODE ANN. § 37-2745 (2006); Illinois, 725 ILL. COMP. STAT. ANN. 5/115-15 (West 2000) (*but see* People v. McClanahan, 729 N.E.2d 470, 478 (Ill. 2000), holding the statute unconstitutional); Iowa, IOWA CODE § 691.2 (2006); Kansas, KAN. STAT. ANN. §§ 22-2902a, 22-3437 (2006); Kentucky, KY. REV. STAT. ANN. § 189A.010 (West 2006); Louisiana, LA. REV. STAT. ANN. §§ 15:499-15:501, 32:662-32:663 (2006); Maine, ME. REV. STAT. ANN. tit. 17-A, § 1112 (2006), ME. REV. STAT. ANN. tit. 5, § 9057 (2006), ME. REV. STAT. ANN. tit. 6, § 205 (2006), ME. REV. STAT. ANN. tit. 29-A, § 2431 (2006); Maryland, MD. CODE ANN., CTS. & JUD. PROC. §§ 10-914, -1001 to -1003 (West 2006); Massachusetts, MASS. GEN. LAWS ch. 111 § 13 (2006), MASS. GEN. LAWS ch. 90 § 24 (2006), MASS. GEN. LAWS ch. 22C, §§ 39, 41 (2006), MASS. GEN. LAWS ch. 90B, § 8 (2006), MASS. GEN. LAWS ch. 94C, § 47A (2006); Michigan, MICH. COMP. LAWS §§ 257.625a, 600.2167 (2006); Minnesota, MINN. STAT. §§ 634.15-16 (2006); Missouri, MO. REV. STAT. §§ 577.020, 577.037 (2006); Nebraska, NEB. REV. STAT. § 28-1439 (2006); Nevada, NEV. REV. STAT. §§ 50.315, 50.320, 50.325 (2006); New Hampshire, N.H. REV. STAT. ANN. §§ 215-A:11-i, 265:92-a, 270:57 (2006); New Jersey, N.J. STAT. ANN. § 2C:35-19 (West 2006); New Mexico, N.M. STAT. ANN. §§ 66-8-110, 66-13-11 (LexisNexis 2006); New York, N.Y. VEH. & TRAF. LAW § 1195 (McKinney 2006), N.Y. C.P.L.R. 4518, 4520 (McKinney 2006), N.Y. CRIM. PROC. LAW § 190.30 (McKinney 2006); North Carolina, N.C. GEN. STAT. §§ 90-95(g), 20-139.1 (2006); North Dakota, N.D. CENT. CODE §§ 19-03.1-37, 39-20-07 (2006); Ohio, OHIO REV. CODE ANN. § 2925.51 (West 2006); Oklahoma, OKLA. STAT. ANN. tit. 22, §§ 751, 751.1 (West 2006), OKLA. STAT. ANN. tit. 47, § 754 (West 2006); Oregon, OR. REV. STAT. §§ 475.235, 40.460, 40.510 (2006); Pennsylvania, 75 PA. CONS. STAT. ANN. § 1547 (West 2006); Rhode Island, R.I. GEN. LAWS § 9-19-43 (2006); South Dakota, S.D. CODIFIED LAWS §§ 23-3-19, 1-49-6 (2006); Tennessee, TENN. CODE ANN. §§ 55-10-407, 40-35-311, 40-28-122 (2006); Texas, TEX. CODE CRIM. PROC. ANN. art. 38.41 (Vernon 2006); Utah, UTAH CODE ANN. §§ 41-6a-515, 72-10-503 (2006); Vermont, VT. STAT. ANN. tit. 23, §§ 1202, 1203 (2006), VT. STAT. ANN. tit. 13, § 4816 (2006); Virginia, VA. CODE ANN. §§ 18.2-268.7, 18.2-268.9, 19.2-187, 19.2-187.01, 19.2-187.02, 19.2-187.2 (2006); Washington, WASH. REV. CODE § 46.20.308 (2006); West Virginia, W. VA. CODE § 17C-5A-1 (2006); Wisconsin, WIS. STAT. § 970.03 (2006); Montana, MONT. REV. 803(8) (2006); South Carolina, S.C. R. CRIM. PRO. 6 (2006); Washington, WASH. ST. SUPER. CT. CRIM. R. 6.13 (2006), WASH. ST. CRIM. R. CTS. LIM. JUR. 6.13 (2006).

10. The six states without forensic *ipse dixit* statutes are California, Georgia, Hawaii, Indiana, Illinois, and Mississippi. Two of those states, Illinois and Georgia, had forensic *ipse dixit* statutes that were repealed after their respective supreme courts found the procedure unconstitutional.

scientifically complex and controversial than the correct identification and weight of a controlled substance.<sup>11</sup> Forensic *ipse dixit* certificates can prove the results of DNA tests, microscopic hair analyses, fingerprint identifications, coroners' reports, ballistics tests and a wide range of other tests conducted by a crime laboratory.<sup>12</sup> When properly invoked, these statutes enable the prosecution to prove, through a hearsay forensic report, both the chain of custody and the "truth" of the forensic tester's conclusions.<sup>13</sup>

Nationally, the forensic *ipse dixit* statutes share certain structural characteristics. Once the prosecution provides any notice required by the statute, the burden shifts to defense counsel to demand that the prosecution honor its constitutional obligation of calling witnesses to prove each element of the offense by proof beyond a reasonable doubt.

If all goes well for the prosecution, the State's forensic proof process looks like this:

- At the request of a prosecutor or law enforcement officer, a State laboratory (or a laboratory retained by the State) conducts one or more forensic tests;
- The laboratory prepares a report reflecting its forensic conclusions;

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11. As discussed *infra* in Part III, correct identification of a controlled substance may itself be a complex scientific question.

12. See, e.g., ALA. CODE § 12-21-300 (2006) (any certificate of analysis performed by a state or federal criminalist is allowed); ARIZ. REV. STAT. § 36-254 (LexisNexis 2006) (report made by chief of state health laboratory is prima facie proof of its contents); ARK. CODE ANN. § 12-12-313 (2006) (any report made by state crime laboratories "shall be received as competent evidence"); COLO. REV. STAT. § 16-3-309(5) (2006) (any report from the criminalistics laboratory shall be received into evidence); IOWA CODE § 691.2 (2006) (findings of the criminalistics laboratory shall be received into evidence); KAN. STAT. ANN. § 22-3437 (2006) (report concerning "forensic examinations" shall be received into evidence); LA. REV. STAT. ANN. §§ 15:499-15:501 (2006) (all criminalistics laboratories, state or federal, are authorized to make proof of examinations and analyses); MICH. COMP. LAWS § 600.2167 (2006) (forensic reports permitted in preliminary and grand jury hearings); MONT. REV. 803(8) (2006) (forensic reports incorporated into Montana's codified public records are admissible); N.Y. C.P.L.R. 4518 (McKinney 2006) (state DNA test results are prima facie proof of their contents); N.Y. CRIM. PROC. LAW § 190.30 (McKinney 2006) (forensic reports admissible in grand jury hearings); OKLA. STAT. ANN. tit. 22, § 751.1 (West 2006) (DNA report from a forensic laboratory admissible as evidence of its contents); OKLA. STAT. ANN. tit. 47, § 754 (West 2006) (medical examiner's report, autopsy, or other forensic examination report is admissible as proof of its contents in DUI hearing); S.D. CODIFIED LAWS § 23-3-19.3 (2006) (copy of report of state crime lab examination is prima facie proof of its contents); TEX. CODE CRIM. PROC. ANN. art. 38.41 (Vernon 2006) (certificate of analysis made by or for a law enforcement agency is admissible in evidence); VA. CODE ANN. § 19.2-187 (2006) (forensic reports admissible in preliminary hearings); WIS. STAT. § 970.03(12)(c) (2006) (latent fingerprint reports made by the Milwaukee police laboratory shall be received into evidence at a preliminary hearing without calling the analyst who made the report).

13. As discussed in Part V, in some jurisdictions the introduction of the hearsay forensic report requires the factfinder to assume the truth of the State's forensic conclusion.

- That report conforms, in form and in substance, to the requirements of the relevant state statute;
- The State complies with any applicable pretrial notice requirements;
- At trial, the State introduces the hearsay report;
- The report proves the chain of custody for the evidence tested;
- The report proves the truth of the laboratory's forensic conclusions;
- No State witness ever testifies about the testing methodology, the testing equipment, or the error rates associated with the testing;
- No State witness ever testifies about the tester's experience, education, or work performance;
- The hearsay forensic report creates, either *de facto* or *de jure*, a presumption that the State has proved, beyond a reasonable doubt, the truth of the report's conclusions.

The desire for cheaper and quicker criminal trials drives the forensic *ipse dixit* phenomenon.<sup>14</sup> Almost universally, legislators, prosecutors, and courts offer the same justifications for the forensic *ipse dixit* procedure: the purported reliability of forensic tests;<sup>15</sup> the infrequency of defense challenges to forensic conclusions;<sup>16</sup> and the financial costs of requiring forensic examiners to appear in court.<sup>17</sup> True, governors, prosecutors, and courts now routinely acknowledge wrongful convictions that are based on faulty science or perjured

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14. See cases cited *infra* note 16.

15. See, e.g., *State v. Hancock*, 825 P.2d 648, 651 (Or. Ct. App. 1992) (explaining that Oregon enacted its forensic *ipse dixit* statute in part, because of the purported rarity of drug misidentification); *State v. Hudson*, 2002 WL 472304, at \*3 (Ohio Ct. App. Mar. 28, 2002) (discussing the courts' long-standing assumption of the "trustworthiness" of crime laboratory analyses). As I explain in Part III, reliance on forensic testing is unwarranted. The potential for erroneous or fraudulent forensic reports underscores the serious threat these statutes pose to defendants' confrontation and due process rights.

16. See, e.g., *State v. Cunningham*, 903 So.2d 1110, 1120 (2005) (discussing high volume of Orleans Parish drug cases and analogizing to other jurisdictions in which fewer than 10% of litigants challenge the state's forensic evidence); *Hancock*, 825 P.2d at 651 (explaining that Oregon enacted its statute, in part, because defendants rarely challenge forensic analyses).

17. See, e.g., *Cunningham*, 903 So.2d at 1115-16 (explaining that the criminalist statute relieves litigants of "the burden" of calling forensic witnesses to the stand); *Rice v. State*, 597 A.2d 1001, 1005 (Md. Ct. Spec. App. 1991) (describing Maryland's criminalist statute as an "evidentiary shortcut" that will "accelerate the trial of cases" (citing *Thompson v. State*, 566 A.2d 126 (Md. Ct. Spec. App. 1989))); *Miller v. State*, 472 S.E.2d 74, 76 (Ga. 1996) (stating the statute's purpose as "promot[ing] judicial economy"). For a discussion of the forensic proof *ipse dixit* phenomenon in Montana, see Nicholas J. Weilhammer, *Face to Face: The Crime Lab Exception of Rule 803(8) of the Montana Rules of Evidence and the Montana Confrontation Clause*, 60 MONT. L. REV. 167, 173-99 (1999).

forensic testimony. Nevertheless, state legislatures continue to authorize constitutional cheating in order to reduce the costs of adversarial criminal litigation.<sup>18</sup>

The forensic *ipse dixit* statutes share more than a common goal of quicker and cheaper criminal convictions; they also share common cheating tactics. They create “default waivers” of fundamental constitutional rights. In turn, those “waivers” convert the State’s partisan allegations into incontrovertible and unconstitutional presumptions.

#### A. *The Forensic Ipse Dixit Procedures*

There are four common varieties of *ipse dixit* statutes. This Article characterizes them as “notice and demand,” “notice and demand-plus,” “anticipatory demand,” and “defense subpoena” procedures.<sup>19</sup>

The most “benign” of these statutory procedures are “notice and demand” procedures.<sup>20</sup> First, the State gives “notice” of its intent to rely upon a forensic certificate to prove the chain of custody and the

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18. For example, as discussed *supra* in text accompanying notes 5-8, even as Texas closed several of its crime laboratories for gross scientific failures, the state legislature enacted a law that made government forensic analysis certificates admissible, without cross-examination, “to establish the results of a laboratory analysis . . . conducted by or for a law enforcement agency . . .” TEX. CODE CRIM. PROC. ANN. § 38.41 (Vernon 2006).

19. As discussed *infra*, state statutes may fall into more than one category; or, a state may distinguish between different types or degrees of crime. For example, Nevada’s code establishes a notice-and-demand framework in felony DUI cases and a notice-and-demand-plus framework in other DUI cases. NEV. REV. STAT. §§ 50.315; 50.320; 50.325 (2006). Accordingly, a felony defendant can elicit courtroom testimony from the analyst merely by filing a written objection to the certificate’s introduction. *Id.* § 50.315(7). On the other hand, a misdemeanor defendant must establish, to the satisfaction of the court, a “bona fide dispute regarding the facts in the affidavit or declaration . . . [and that] it is in the best interests of justice that the witness who signed the affidavit or declaration be cross examined.” *Id.* § 50.315(6).

20. Professor Paul Giannelli appears to have been the first to describe the forensic *ipse dixit* statutes as “notice and demand” procedures. See Paul C. Giannelli, *Expert Testimony and the Confrontation Clause*, 22 CAP. U. L. REV. 45, 84 (1993). In that article, Professor Giannelli encouraged states to adopt notice and demand statutes that would “ease the government’s burden” of producing forensic witnesses, while “protecting the defendants’ right of confrontation.” *Id.* at 84. Like most criminal procedure scholars, I am indebted to Professor Giannelli for his path-breaking work on scientific evidence and criminal prosecutions. See, e.g., Paul C. Giannelli, *Ake v. Oklahoma: The Right To Expert Assistance in a Post-Daubert, Post-DNA World*, 89 CORNELL L. REV. 1305, 1319-20 (2004); Paul C. Giannelli, *The “Science” of Wrongful Convictions*, 18 CRIM. JUST. 55 (2003); Paul C. Giannelli, *Admissibility of Lab Reports: the Right of Confrontation Post-Crawford*, 19 CRIM. JUST. 26 (2004); P.C. GIANNELLI & E.J. IMWINKELRIED, *SCIENTIFIC EVIDENCE* (3d ed. 1999). However, for all of the reasons set forth in this Article, I respectfully disagree with Professor Giannelli’s conclusion that notice and demand statutes adequately protect a defendant’s confrontation rights. See *infra* Part IV.

crime laboratory's forensic conclusions.<sup>21</sup> To prevent the admission of the forensic hearsay and invocation of the applicable presumptions, the defendant must timely object and "demand" that the prosecution produce the forensic witness at trial. The demand must meet relevant procedural statutory requirements including timely and proper service.<sup>22</sup> However, the demand need not include substantive allegations or specific fact-based objections. Failure to file a demand constitutes waiver of the defendant's objection to the hearsay and to its statutory consequences. Generally, this means that the forensic report proves both the chain of custody and the substantive conclusions of the forensic report. Twelve states rely on this notice and demand procedure.<sup>23</sup>

"Notice and demand-plus" statutes mimic the structure of notice and demand statutes but impose substantive requirements on the defendant's demand.<sup>24</sup> Once the prosecution provides the requisite notice, the defense must file a substantive objection with factual allegations that justify its demand that the prosecution produce its witness.<sup>25</sup> Alaska requires that a defendant "show [] cause" for

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21. Proper notice typically requires that the prosecution timely provide the defense with a copy of the report and a statement of the prosecution's intent to invoke the applicable statutory presumptions. Timely notice ranges from a mandatory forty days before trial, *see, e.g.*, ALA. CODE § 12-21-301 (2006) (notice must be provided "not less than 40 days prior to the commencement of the hearing or trial"), to an ambiguous requirement that the State provide notice "before trial," *see, e.g.*, OHIO REV. CODE ANN. § 2925.51(B) (West 2006) (State must give notice "prior to" trial). *See also* State *ex rel.* T.J., 800 So. 2d 969 (La.Ct. App. 2001) (declining to determine whether notice given the morning of trial qualifies as a "reasonable time" before trial).

22. The demand must typically be filed within a specified time after the receipt of notice or before the commencement of trial. Demand dates vary from state to state. *Compare* ALA. CODE § 12-21-302(a) (2006) (requiring the defendant to issue demand at least 30 days prior to trial) and DEL. CODE ANN. tit. 10, § 4332(a) (2006) (requiring the demand be issued at least five days prior to trial).

23. The twelve states are as follows: Delaware, DEL. CODE ANN. tit. 10, §§ 4330-4332 (2006); Illinois, 725 ILL. COMP. STAT. 5/115-15 (West 2000) (*but see* People v. McClanahan, 729 N.E.2d 470 (Ill. 2000), holding statute unconstitutional); Iowa, IOWA CODE § 691.2 (2006); Maryland; MD. CODE ANN., CTS. & JUD. PROC. § 10-914 (West 2006); MD. CODE ANN., CTS. & JUD. PROC. §§ 10-1001 to -1003 (West 2006); MD. CODE ANN., CTS. & JUD. PROC. § 10-306 (West 2006); Michigan, MICH. COMP. LAWS § 600.2167 (2006); Nevada, NEV. REV. STAT. §§ 50.315, 50.320, 50.325 (2004) (Note that § 50.315 has separate provisions for misdemeanor and felony DUI cases, and that a recent Nevada Supreme Court decision held that the statute violates the defendant's confrontation right, *see* City of Las Vegas v. Walsh, 91 P.3d 591, 595 (Nev. 2004)); Ohio, OHIO REV. CODE ANN. § 2925.51 (West 2006); Oklahoma, OKLA. STAT ANN. tit. 22, § 751.1 (West 2006); Texas, TEX. CODE CRIM. PROC. ANN. art. 38.41 (Vernon 2006); Virginia, VA. CODE ANN. §§ 19.2-187 to -187.2 (West 2006); Washington, WASH. ST. SUPER. CT. CRIM. R. 6.13 (2006).

24. It might be more accurate to characterize the "demand" as a written objection. However, since "demand" is the term consistently used in relevant statutes and scholarly literature, I use that term throughout this Article.

25. The substantive demand requirements often require the defendant to reveal part of his defense strategy in exchange for the opportunity to have the court consider permitting him to confront the State's forensic witness.

wanting to confront the witness.<sup>26</sup> Tennessee requires a defendant to support his demand with proof that he has a good faith basis for challenging the prosecution's forensic conclusions.<sup>27</sup> Alabama and Louisiana require that defense counsel affirm, under oath, that she intends to cross-examine the witness at trial.<sup>28</sup> These statutes are not self-executing; a proper pleading of the requisite allegation does not, in itself, compel the prosecution to produce its witness. Instead, the trial court reviews the defense's demand to determine whether its pleading justifies an order to produce the prosecution's witness for cross-examination.<sup>29</sup>

In "anticipatory demand" schemes, the prosecution has no notice obligation. The prosecution need never notify the defense or the court that it plans to rely on the hearsay forensic report in lieu of live testimony.<sup>30</sup> Still, a defendant must make a timely pretrial demand that the prosecution produce its witness; otherwise, the defendant is deemed to have waived any objection to the forensic *ipse dixit* procedure.<sup>31</sup> In this trial-by-ambush,<sup>32</sup> defense counsel must blindly,

26. ALASKA STAT. § 12.45.084 (LexisNexis 2006).

27. TENN. CODE ANN. § 40-35-311 (2006).

28. ALA. CODE § 12-21-302 (2006); LA. REV. STAT. ANN. § 15:501 (2006). The "good faith" demand statutes create an ethical dilemma for defense counsel. Before seeing the State present its trial case, she must affirm, under oath, that if the forensic witness appears, she will cross-examine. This creates a serious conflict of interest between lawyer and client. If, after seeing the State's direct evidence, she decides that the defendant is best-served by waiving cross-examination on the forensic evidence she faces professional sanctions. ALA. CODE § 12-21-302; LA. REV. STAT. ANN. § 15:501. However, if she protects her own interests at the cost of the defendant's most effective trial strategy, she commits the most serious of ethical violations.

29. See ALA. CODE § 12-21-302 (2006); LA. REV. STAT. ANN. § 15:501 (2006); N.J. STAT. ANN. § 2C:35-19(c) (West 2006); NEV. REV. STAT. §§ 50.315; 50.320; 50.325 (2006); TENN. CODE ANN. § 40-35-311(c)(2) (2006).

30. Fewer than half of the forensic *ipse dixit* statutes require that the prosecution give the defense formal pretrial notice of its intent to rely on the forensic report in lieu of live witness testimony. See, e.g., ARK. CODE ANN. § 12-12-313 (2006); DEL. CODE ANN. tit. 10, §§ 4330-4332 (2006); FLA. STAT. ANN. §§ 316.1934, 327.354 (West 2006); IDAHO CODE ANN. § 37-2745 (2006); IOWA CODE § 691.2 (2006); KAN. STAT. ANN. § 22-2902a (2006); KY. REV. STAT. ANN. § 189A.010 (West 2006); ME. REV. STAT. ANN. tit. 17-A, § 1112 (2006); ME. REV. STAT. ANN. tit. 29-A, § 2431 (2006); MASS. GEN. LAWS ch. 111, § 13 (2006); MASS. GEN. LAWS ch. 90, § 24 (2006); MASS. GEN. LAWS ch. 22C, §§ 39, 41 (2006); MASS. GEN. LAWS ch. 90B, § 8 (2006); MASS. GEN. LAWS ch. 94C, § 47A (2006); MICH. COMP. LAWS § 257.625a (2006); MINN. STAT. §§ 634.15-.16 (2006); MO. REV. STAT. § 577.037 (2006); NEB. REV. STAT. § 28-1439 (2006); NEV. REV. STAT. §§ 50.315, 50.320 (2006); N.H. REV. STAT. ANN. §§ 215-A:11-i, 265:92-a, 270:57 (2006); N.M. STAT. ANN. §§ 66-8-110, 66-13-11 (LexisNexis 2006); N.Y. VEH. & TRAF. LAW § 1195 (McKinney 2006); N.Y. C.P.L.R. 4518, 4520 (McKinney 2006); N.Y. CRIM. PROC. LAW § 190.30 (McKinney 2006); N.D. CENT. CODE §§ 19-03.1-37, 39-20-07 (2006); OR. REV. STAT. § 475.235 (2006); 75 PA. CONS. STAT. ANN. § 1547 (West 2006); S.D. CODIFIED LAWS § 23-3-19 (2006); TENN. CODE ANN. §§ 55-10-407, 40-35-311, 40-28-122 (2006); UTAH CODE ANN. §§ 41-6a-515, 72-10-503 (2006); VT. STAT. ANN. tit. 23, §§ 1202, 1203 (2006); VT. STAT. ANN. tit. 13, § 4816 (2006); VA. CODE ANN. §§ 18.2-268.7, 18.2-268.9, 19.2-187, 19.2-187.01, 19.2-187.02, 19.2-187.2 (2006); W. VA. CODE § 17C-5A-1 (2006).

31. See *infra* note 34 and accompanying text.

but timely, make pretrial objections to an unseen forensic report without knowing whether the prosecution intends to rely upon that report.<sup>33</sup>

Moreover, some of these anticipatory demand statutes are actually anticipatory demand-plus statutes. The defense's objection must meet a substantive threshold. The trial court considers the substance of the defense demand to determine whether the demand justifies the time and expense associated with confrontation of the State's witness.

Finally, in "defense subpoena" procedures, any forensic prosecution witness appears as a result of a defense subpoena and testifies on the defense's case. Some *ipse dixit* legislation prescribes a defense subpoena as the statutory procedure for objection and demand.<sup>34</sup> In the absence of any statutory procedure that entitles the defendant to subpoena the State's witness, the defense must subpoena the State's forensic analyst to appear on the defense's case-in-chief. Thus, to exercise his confrontation rights, the defendant must relinquish his right to rely on the government's failure of proof and exercise, instead, his right to compulsory process. Most defense subpoena procedures include a substantive demand requirement that empowers the trial court to refuse a defense request to subpoena the forensic witness.<sup>35</sup>

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32. The defendant's proper invocation of discovery rules may alleviate the "ambush" effect. Most states require that, upon request, the prosecution disclose to the defense any expert statements or reports that it plans to introduce at trial. *See, e.g.*, KAN. STAT. ANN. § 22-3212(a) (2006); NEV. REV. STAT. § 174.235(1) (2006); N.Y. CRIM. PROC. LAW § 240.20 (McKinney 2006); OR. REV. STAT. § 135.815 (2006); S.D. CODIFIED LAWS § 23A-13-4 (2006); ARK. R. CRIM. P. 17.1; FLA. R. CRIM. P. 3.22; IDAHO CRIM. R. 16(b)(5); KY R. CRIM. P. 7.24; ME. R. CRIM. P. 16(b)(1); MASS. R. CRIM. P. 14(a)(1)(A); MICH. CT. R. 6.201(A)(5); MINN. R. CRIM. P. 9.01; MO. R. CRIM. P. 25.03(A); R. SUPER. CT. ST. N.H. 98(A)(2); N.M. R. ANN. 5-501; N.D. R. CRIM. P. 16(a)(1)(D); PA. R. CRIM. P. 573(B)(1)(e); TENN. R. CRIM. P. 16; VT. R. CRIM. P. 16; VA. R. CT. 3A:11(b)(1)(ii); W.V. R. CRIM. P. 16(a)(1)(D).

33. These jurisdictions include Arkansas, Kansas, Maine, and North Carolina. *See, e.g.*, *Dodson v. State*, 934 S.W.2d 198, 203 (Ark. 1996). What constitutes a "timely" pretrial objection is generally calculated from the trial date.

34. These jurisdictions include Arkansas, the District of Columbia, Florida, Idaho, Montana, North Dakota, Oregon, and Rhode Island. *See, e.g.*, D.C. CODE ANN. § 48-905.06 (2006); MONT. REV. 803(6), (8) (2006); R.I. GEN. LAWS § 9-19-43 (2006). These laws are so far removed from the ordinary presumptions of constitutional procedure that they "grant" to the defendant, as a privilege, his unambiguous right to compulsory process. For example, Idaho's forensic report statute authorizes the defendant to subpoena the report's author at no cost to the defendant. IDAHO CODE ANN. § 37-2745(d) (2006).

35. For example, Alabama's forensic certificate statute states, "The court shall grant the request for subpoena only for good cause shown. Good cause shall not include a challenge to the findings contained in the certificate of analysis, unless the requesting party first establishes a legitimate basis for the challenge." ALA. CODE § 12-21-302(b) (2006); *see also* NEV. REV. STAT. §§ 50.315 (2006). These restrictions upon this issuance of a defense subpoena are flagrant

*B. The Reports Covered by the Ipse Dixit Procedure*

Forensic *ipse dixit* statutes may regulate a wide range of rules and conduct relating to laboratory procedures, laboratory personnel, and laboratory reports. Some statutes impose minimum accreditation requirements upon laboratory workers. Others address the question of whether the forensic declarant must be the person who actually conducted the forensic evaluation. Other *ipse dixit* statutes specify the information that must be included in the laboratory report; such as the laboratory's testing methodology, the tester's experience, and the laboratory's accreditation.

The average forensic *ipse dixit* report contains little more than the crime laboratory's conclusions. The vast majority of forensic *ipse dixit* statutes permit the State to file a forensic certificate without any mention of the analyst's education, qualifications, and experience.<sup>36</sup> In a demand-plus procedure, this effectively preempts any defense

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violations of a defendant's right to compulsory process. For an excellent overview of the right granted by the Compulsory Process Clause, see Janet C. Hoeffel, *The Sixth Amendment's Lost Clause: Unearthing Compulsory Process*, 2002 WIS. L. REV. 1275 (2002).

36. The following states require that the forensic certificate provide the tester's results but not the tester's qualifications: Alabama, ALA. CODE § 12-21-300 (2006); Arizona, ARIZ. REV. STAT. § 36-254 (LexisNexis 2006); Colorado, COLO. REV. STAT. § 16-3-309(5) (2006); Connecticut, CONN. GEN. STAT. § 21a-283(b) (2006); Delaware, DEL. CODE ANN. tit. 10, §§ 4330-4332 (2006); the District of Columbia, D.C. CODE ANN. § 48-905.06 (LexisNexis 2006); Florida, FLA. STAT. ANN. §§ 316.1934, 327.354 (West 2006); IDAHO CODE ANN. § 37-2745 (2006); Iowa, IOWA CODE § 691.2 (2006); Kentucky, KY. REV. STAT. ANN. § 189A.010 (West 2006); Louisiana, LA. REV. STAT. ANN. §§ 15:499-501, 32:662-663 (2006); Massachusetts, MASS. GEN. LAWS ch. 111, § 13 (2006), MASS. GEN. LAWS ch. 90, § 24 (2006), MASS. GEN. LAWS ch. 22C, §§ 39, 41 (2006), MASS. GEN. LAWS ch. 90B, § 8 (2006), MASS. GEN. LAWS ch. 94C, § 47A (2006); Michigan, MICH. COMP. LAWS §§ 257.625a, 600.2167 (2006); Nebraska, NEB. REV. STAT. § 28-1439 (2006); Nevada, NEV. REV. STAT. §§ 50.315, 50.320, 50.325 (2006); New Hampshire, N.H. REV. STAT. ANN. §§ 215-A:11-i, 265:92-a, 270:57 (2006); New Mexico, N.M. STAT. ANN. §§ 66-8-110, 66-13-11 (LexisNexis 2006); New York, N.Y. VEH. & TRAF. LAW § 1195 (McKinney 2006), N.Y. C.P.L.R. 4518, 4520 (McKinney 2006), N.Y. CRIM. PROC. LAW § 190.30 (McKinney 2006); North Carolina, N.C. GEN. STAT. §§ 90-95(g), 20-139.1 (2006); North Dakota, N.D. CENT. CODE §§ 19-03.1-37, 39-20-07 (2006); Oklahoma, OKLA. STAT. ANN. tit. 22, §§ 751, 751.1 (West 2006), OKLA. STAT. ANN. tit. 47, § 754 (West 2006); Oregon, OR. REV. STAT. §§ 475.235, 40.460, 40.510 (2006); Pennsylvania, 75 PA. CONS. STAT. ANN. § 1547 (West 2006); Rhode Island, R.I. GEN. LAWS § 9-19-43 (2006); Vermont, VT. STAT. ANN. tit. 23, §§ 1202, 1203 (2006), VT. STAT. ANN. tit. 13, § 4816 (2006); Virginia, VA. CODE ANN. §§ 18.2-268.7, 18.2-268.9, 19.2-187, 19.2-187.01, 19.2-187.02, 19.2-187.2 (2006); Washington, WASH. REV. CODE § 46.20.308 (2006); West Virginia, W. VA. CODE § 17C-5A-1 (2006); Wisconsin, WIS. STAT. § 970.03 (2006); Washington Court Rules, WASH. ST. SUPER. CT. CRIM. R. 6.13 (2006), WASH. ST. CRIM. R. CTS. LIM. JUR. 6.13 (2006). Several other states' statutes are silent as to whether the certificate must contain the tester's qualifications. States also impose different substantive requirements for different procedural stages and different types of forensic testing. See, e.g., KAN. STAT. ANN. §§ 22-2902a, 22-3437 (2006) (noting that the certificate is admissible at a pretrial hearing even if it does not disclose analyst qualifications or methodology; however, the certificate is admissible at trial only if it includes analyst qualifications and methodology).

demand based on concerns about the tester's qualification to perform and interpret the tests at issue. Eleven states impose minimum qualification standards on forensic testers but do not require that the forensic report allege that the attesting examiner met the state qualification requirements.<sup>37</sup> Only thirteen states require that the forensic report include certified information about the analyst's education, employment history, and testing experience.<sup>38</sup> In sum, the vast majority of the forensic *ipse dixit* statutes presume the tester's competence.<sup>39</sup>

Moreover, although forensic *ipse dixit* reports substitute for sworn trial testimony, many of these reports are not made under oath. Some jurisdictions permit the State to rely upon an unsworn report that is "certified" as an authentic copy of the analyst's unsworn report.<sup>40</sup> Fourteen jurisdictions have forensic *ipse dixit* statutes that

37. Alaska, ALASKA STAT. § 12.45.084 (LexisNexis 2006); Delaware, DEL. CODE ANN. tit. 10, §§ 4330-4332 (2006); Illinois, 725 ILL. COMP. STAT. ANN. 5/115-15 (West 2000) (*but see* People v. McClanahan, 729 N.E.2d 470, 478 (Ill. 2000), holding the statute unconstitutional); Iowa, IOWA CODE § 691.2 (2004); Louisiana, LA. REV. STAT. ANN. §§ 15:499-501, 32:662-663 (West 2006); Maryland, MD. CODE ANN., CTS. & JUD. PROC. §§ 10-914, -1001 to -1003 (West 2006); North Carolina, N.C. GEN. STAT. §§ 90-95(g), 20-139.1 (2006); Oregon, OR. REV. STAT. §§ 475.235, 40.460, 40.510 (2006); Pennsylvania, 75 PA. CONS. STAT. ANN. § 1547 (West 2006); Vermont, VT. STAT. ANN. tit. 23, §§ 1202, 1203 (2006), VT. STAT. ANN. tit. 13, § 4816 (2006); Virginia, VA. CODE ANN. §§ 18.2-268.7, 18.2-268.9, 19.2-187, 19.2-187.01, 19.2-187.02, 19.2-187.2 (2006).

38. Examples include: Florida, §§ 10-914, -1001 to -1003 (West 2006); Minnesota, MINN. STAT. §§ 634.15-16 (2006); Missouri, MO. REV. STAT. §§ 577.020, 577.037 (2006); Nevada, NEV. REV. STAT. §§ 50.315, 50.320, 50.325 (2006); New Jersey, N.J. STAT. ANN. § 2C:35-19 (West 2006); Ohio, OHIO REV. CODE ANN. § 2925.51 (West 2006); Tennessee, TENN. CODE ANN. §§ 55-10-407, 40-35-311, 40-28-122 (2006); Texas, TEX. CODE CRIM. PROC. ANN. art. 38.41 (Vernon 2006); Washington, WASH. REV. CODE § 46.20.308 (2006).

39. See generally Christopher Slobogin, *The Structure of Expertise in Criminal Cases*, 34 SETON HALL L. REV. 105, 116 (2003). See also ARIZ. REV. STAT. § 36-254 (LexisNexis 2006); ARK. CODE ANN. §§ 5-64-707, 12-12-313 (2006); COLO. REV. STAT. § 16-3-309(5) (2006); D.C. CODE ANN. § 48-905.06 (LexisNexis 2006); IDAHO CODE ANN. § 37-2745 (2006); KAN. STAT. ANN. §§ 22-2902a, 22-3437 (2006); KY. REV. STAT. ANN. § 189A.010 (West 2006); LA. REV. STAT. ANN. §§ 15:499-501, 32:662-663 (2006); ME. REV. STAT. ANN. tit. 17-A, § 1112 (2006); ME. REV. STAT. ANN. tit. 5, § 9057 (2006); ME. REV. STAT. ANN. tit. 6, § 205 (2006); ME. REV. STAT. ANN. tit. 29-A, § 2431 (2006); MASS. GEN. LAWS ch. 111, § 13 (2006); MASS. GEN. LAWS ch. 90, § 24 (2006); MASS. GEN. LAWS ch. 22C, §§ 39, 41 (2006); MASS. GEN. LAWS ch. 90B, § 8 (2006); MASS. GEN. LAWS ch. 94C, § 47A (2006); MICH. COMP. LAWS §§ 257.625a, 600.2167 (2006); NEB. REV. STAT. § 28-1439 (2006); NEV. REV. STAT. §§ 50.315, 50.320, 50.325 (2006); N.H. REV. STAT. ANN. §§ 215-A:11-i, 265:92-a, 270:57 (2006); N.M. STAT. ANN. §§ 66-8-110, 66-13-11 (LexisNexis 2006); N.Y. VEH. & TRAF. LAW § 1195 (McKinney 2006); N.Y. C.P.L.R. 4518, 4520 (McKinney 2006); N.Y. CRIM. PROC. LAW § 190.30 (McKinney 2006); N.C. GEN. STAT. §§ 90-95(g), 20-139.1 (2006); N.D. CENT. CODE §§ 19-03.1-37, 39-20-07 (2006); OKLA. STAT. ANN. tit. 22, §§ 751, 751.1 (West 2006), OKLA. STAT. ANN. tit. 47, § 754 (West 2006); R.I. GEN. LAWS § 9-19-43 (2006); S.D. CODIFIED LAWS §§ 23-3-19, 1-49-6 (2006); UTAH CODE ANN. §§ 41-6a-515, 72-10-503 (2006); VA. CODE ANN. §§ 18.2-268.7, 18.2-268.9, 19.2-187, 19.2-187.01, 19.2-187.02, 19.2-187.2 (2006); W. VA. CODE § 17C-5A-1 (2006); WIS. STAT. § 970.03 (2006).

40. Thus the document is certified, but no one has sworn to the accuracy or truth of its contents. See, e.g., CONN. GEN. STAT. § 21a-283(b) (2006); DEL. CODE ANN. tit. 10, §§ 4330-32

permit the prosecution to rely on forensic certificates that are unsigned, unsworn, or uncertified.<sup>41</sup>

Many of these reports are prepared and signed by a laboratory employee who never tested the substance. Only twelve jurisdictions require that the person who conducted the scientific analysis attest to the forensic report.<sup>42</sup> Other jurisdictions admit reports that are certified by any authorized laboratory employee, regardless of the certifying employee's familiarity with the particular test or the general testing procedure.<sup>43</sup>

Finally, many statutes authorize reliance on forensic *ipse dixit* procedures without requiring the State to reveal the methods and procedures underlying the analyst's forensic conclusion.<sup>44</sup> These

(2006); D.C. CODE ANN. § 48-905.06 (LexisNexis 2006); LA. REV. STAT. ANN. §§ 15:499-501, 32:662-63 (2006); MICH. COMP. LAWS §§ 257.625a, 600.2167 (2006); MINN. STAT. §§ 634.15-16 (2006); OHIO REV. CODE ANN. § 2925.51 (West 2006); OKLA. STAT. ANN. tit. 22, §§ 751, 751.1 (West 2006); OKLA. STAT. ANN. tit. 47, § 754 (West 2006); S.D. CODIFIED LAWS §§ 23-3-19, 1-49-6 (2006). Virginia provides for the admission of forensic certificates that are not sworn, but are "signed," "attested to," "certified," or "authenticated" by the analyst. VA. CODE ANN. §§ 18.2-268.7, 18.2-268.9, 19.2-187, 19.2-187.01, 19.2-187.02, 19.2-187.2 (2006). Indiana and Illinois allow the admission of notarized copies of forensic reports.

41. These jurisdictions include: Colorado, COLO. REV. STAT. § 16-3-309(5) (2006); Florida, FLA. STAT. ANN. §§ 316.1934, 327.354 (West 2006); Iowa, IOWA CODE § 691.2 (2006); Kentucky, KY. REV. STAT. ANN. § 189A.010 (West 2006); Missouri, MO. REV. STAT. §§ 577.020, 577.037 (2006); Nebraska, NEB. REV. STAT. § 28-1439 (2006); Nevada, NEV. REV. STAT. §§ 50.315, 50.320, 50.325 (2006); New Hampshire, N.H. REV. STAT. ANN. §§ 215-A:11-i, 265:92-a, 270:57 (2006); New Mexico, N.M. STAT. ANN. §§ 66-8-110, 66-13-11 (LexisNexis 2006); New York, N.Y. VEH. & TRAF. LAW § 1195 (McKinney 2006), N.Y. C.P.L.R. 4518, 4520 (McKinney 2006), N.Y. CRIM. PROC. LAW § 190.30 (McKinney 2006); Pennsylvania, 75 PA. CONS. STAT. ANN. § 1547 (West 2006); Utah, UTAH CODE ANN. §§ 41-6a-515, 72-10-503 (2006); Vermont, VT. STAT. ANN. tit. 23, §§ 1202, 1203 (2006), VT. STAT. ANN. tit. 13, § 4816 (2006).

42. Examples of these jurisdictions include: Alabama, ALA. CODE § 12-21-300 (2006); Alaska, ALASKA STAT. § 12.45.084 (Michie 2006); Kansas, KAN. STAT. ANN. §§ 22-2902a, 22-3437 (2006); Maine, ME. REV. STAT. ANN. tit. 17-A, § 1112 (2006), ME. REV. STAT. ANN. tit. 5, § 9057 (2006), ME. REV. STAT. ANN. tit. 6, § 205 (2006), ME. REV. STAT. ANN. tit. 29-A, § 2431 (2006); Massachusetts, MASS. GEN. LAWS ch. 111, § 13 (2006), MASS. GEN. LAWS ch. 90, § 24 (2006), MASS. GEN. LAWS ch. 22C, §§ 39, 41 (2006), MASS. GEN. LAWS ch. 90B, § 8 (2006), MASS. GEN. LAWS ch. 94C, § 47A (2006); New Jersey, N.J. STAT. ANN. § 2C:35-19 (West 2006); North Carolina, N.C. GEN. STAT. §§ 90-95(g), 20-139.1 (2006); Rhode Island, R.I. GEN. LAWS § 9-19-43 (2006); Tennessee, TENN. CODE ANN. §§ 55-10-407, 40-35-311, 40-28-122 (2006); Texas, TEX. CODE CRIM. PROC. ANN. art. 38.41 (Vernon 2006); Washington, WASH. REV. CODE § 46.20.308 (2006); West Virginia, W. VA. CODE § 17C-5A-1 (2006). For a general discussion of the difference between examining a proponent of the report and the forensic examiner(s) who conducted the tests and made the forensic conclusions, see Giannelli, *supra* note 20, at 55-59.

43. This type of rule is in place in Arkansas, ARK. CODE ANN. § 5-64-707 (2006), North Dakota, N.D. CENT. CODE §§ 19-03.1-37, 39-20-07 (2006), Oregon, OR. REV. STAT. §§ 475.235, 40.460, 40.510 (2006), and Wisconsin, WIS. STAT. § 970.03 (2006). Oregon's statute offers the State the alternative of having the report certified by either the analyst who performed the test or by the director of the state police forensic laboratory.

44. Examples include: Alabama, ALA. CODE § 12-21-300 (2006); Alaska, ALASKA STAT. § 12.45.084 (2006); Arizona, ARIZ. REV. STAT. ANN. § 36-254 (2006); Arkansas, ARK. CODE ANN.

“naked” reports do not indicate whether the declarant relied solely on outcomes of scientific tests *actually* performed, or whether he considered information supplied by the police or by other sources.<sup>45</sup>

Few states impose forensic standards that regulate laboratory testing procedures.<sup>46</sup> Only sixteen states require that the forensic

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§ 5-64-707 (2006); ARK. CODE ANN. § 12-12-313 (2006); Colorado, COLO. REV. STAT. § 16-3-309(5) (2006); Connecticut, CONN. GEN. STAT. § 21a-283(b) (2006); Delaware, DEL. CODE ANN. tit. 10, §§ 4330-4332 (2006); District of Columbia, D.C. CODE ANN. § 48-905.06 (LexisNexis 2006); Florida, FLA. STAT. ANN. §§ 316.1934, 327.354 (West 2006); Idaho, IDAHO CODE ANN. § 37-2745 (2006); Iowa, IOWA CODE § 691.2 (2006); Kansas, KAN. STAT. ANN. §§ 22-2902a, 22-3437 (2006); Kentucky, KY. REV. STAT. ANN. § 189A.010 (West 2006); Louisiana, LA. REV. STAT. ANN. §§ 15:499-15:501, 32:662-32:663 (2006); Maine, ME. REV. STAT. ANN. tit. 17-A, § 1112 (2006), ME. REV. STAT. ANN. tit. 5, § 9057 (2006), ME. REV. STAT. ANN. tit. 6, § 205 (2006), ME. REV. STAT. ANN. tit. 29-A, § 2431 (2006); Massachusetts, MASS. GEN. LAWS ch. 111 § 13 (2006), MASS. GEN. LAWS ch. 90 § 24 (2006), MASS. GEN. LAWS ch. 22C, §§ 39, 41 (2006), MASS. GEN. LAWS ch. 90B, § 8 (2006), MASS. GEN. LAWS ch. 94C, § 47A (2006); Michigan, MICH. COMP. LAWS §§ 257.625a, 600.2167 (2006); Minnesota, MINN. STAT. §§ 634.15-16 (2006); Missouri, MO. REV. STAT. §§ 577.020, 577.037 (2006); Nebraska, NEB. REV. STAT. § 28-1439 (2006); Nevada, NEV. REV. STAT. §§ 50.315, 50.320, 50.325 (2006); New Mexico, N.M. STAT. ANN. §§ 66-8-110, 66-13-11 (LexisNexis 2006); New York, N.Y. VEH. & TRAF. LAW § 1195 (McKinney 2006), N.Y. C.P.L.R. 4518, 4520 (McKinney 2006), N.Y. CRIM. PROC. LAW § 190.30 (McKinney 2006); North Carolina, N.C. GEN. STAT. §§ 90-95(g), 20-139.1 (2006); North Dakota, N.D. CENT. CODE §§ 19-03.1-37, 39-20-07 (2006); Oklahoma, OKLA. STAT. ANN. tit. 22, §§ 751, 751.1 (West 2006), OKLA. STAT. ANN. tit. 47, § 754 (West 2006); Oregon, OR. REV. STAT. §§ 475.235, 40.460, 40.510 (2006); Pennsylvania, 75 PA. CONS. STAT. ANN. § 1547 (West 2006); Rhode Island, R.I. GEN. LAWS § 9-19-43 (2006); South Dakota, S.D. CODIFIED LAWS §§ 23-3-19, 1-49-6 (2006); Vermont, VT. STAT. ANN. tit. 23, §§ 1202, 1203 (2006), VT. STAT. ANN. tit. 13, § 4816 (2006); Virginia, VA. CODE ANN. §§ 18.2-268.7, 18.2-268.9, 19.2-187, 19.2-187.01, 19.2-187.02, 19.2-187.2 (2006); Washington, WASH. REV. CODE § 46.20.308 (2006); West Virginia, W. VA. CODE § 17C-5A-1 (2006); Wisconsin, WIS. STAT. § 970.03 (2006).

45. For a discussion of confirmatory bias that accompanies forensic outcomes obtained with knowledge of extrinsic facts, see *infra* Part III and text accompanying notes 86-100.

46. The following jurisdictions have no forensic standards that regulate laboratory procedures: Arizona, ARIZ. REV. STAT. ANN. § 36-254 (2006); Arkansas, ARK. CODE ANN. § 5-64-707 (2006), ARK. CODE ANN. § 12-12-313 (2006); Colorado, COLO. REV. STAT. § 16-3-309(5) (2006); District of Columbia, D.C. CODE ANN. § 48-905.06 (LexisNexis 2006); Idaho, IDAHO CODE ANN. § 37-2745 (2006); Iowa, IOWA CODE § 691.2 (2006); Kansas, KAN. STAT. ANN. §§ 22-2902a, 22-3437 (2006); Kentucky, KY. REV. STAT. ANN. § 189A.010 (West 2006); Louisiana, LA. REV. STAT. ANN. §§ 15:499-15:501, 32:662-32:663 (2006); Massachusetts, MASS. GEN. LAWS ch. 111 § 13 (2006), MASS. GEN. LAWS ch. 90 § 24 (2006), MASS. GEN. LAWS ch. 22C, §§ 39, 41 (2006), MASS. GEN. LAWS ch. 90B, § 8 (2006), MASS. GEN. LAWS ch. 94C, § 47A (2006); Michigan, MICH. COMP. LAWS §§ 257.625a, 600.2167 (2006); Nebraska, NEB. REV. STAT. § 28-1439 (2006); Nevada, NEV. REV. STAT. §§ 50.315, 50.320, 50.325 (2006); New Hampshire, N.H. REV. STAT. ANN. §§ 215-A:11-i, 265:92-a, 270:57 (2006); New Jersey, N.J. STAT. ANN. § 2C:35-19 (West 2006); New Mexico, N.M. STAT. ANN. §§ 66-8-110, 66-13-11 (LexisNexis 2006); New York, N.Y. VEH. & TRAF. LAW § 1195 (McKinney 2006), N.Y. C.P.L.R. 4518, 4520 (McKinney 2006), N.Y. CRIM. PROC. LAW § 190.30 (McKinney 2006); North Carolina, N.C. GEN. STAT. §§ 90-95(g), 20-139.1 (2006); North Dakota, N.D. CENT. CODE §§ 19-03.1-37, 39-20-07 (2006); Oklahoma, OKLA. STAT. ANN. tit. 22, §§ 751, 751.1 (West 2006), OKLA. STAT. ANN. tit. 47, § 754 (West 2006); Rhode Island, R.I. GEN. LAWS § 9-19-43 (2006); Utah, UTAH CODE ANN. §§ 41-6a-515, 72-10-503 (2006); Virginia, VA. CODE ANN. §§ 18.2-268.7, 18.2-268.9, 19.2-187, 19.2-187.01, 19.2-187.02, 19.2-187.2 (2006); Washington, WASH. REV. CODE § 46.20.308 (2006); West Virginia, W. VA. CODE § 17C-5A-1 (2006); Wisconsin, WIS. STAT. § 970.03 (2006).

report disclose the forensic methodology that the laboratory used.<sup>47</sup> Eleven states prescribe the testing methodology but do not require that the report include any affirmation that the laboratory actually used that methodology.<sup>48</sup>

Thus, most forensic *ipse dixit* statutes virtually eliminate judicial inquiry into the reliability of the general scientific methodology or the particular scientific test.<sup>49</sup> Only five jurisdictions impose a “trifecta” of stringent requirements upon the forensic certificates: disclosure of the analyst’s qualifications and experience; identification of the applicable testing methodology; and verification of the report, made by the forensic examiner, under oath and subject to the penalty of perjury.<sup>50</sup> The remainders of the forensic *ipse dixit* statutes tread heavily on the toes of a defendant’s due process right to have the jury hear only reliable expert testimony.

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47. Alabama, ALA. CODE § 12-21-300 (2006); Connecticut, CONN. GEN. STAT. § 21a-283(b) (2006); Florida, FLA. STAT. ANN. §§ 316.1934, 327.354 (West 2006); Kansas, KAN. STAT. ANN. §§ 22-2902a, 22-3437 (2006); Louisiana, LA. REV. STAT. ANN. §§ 15:499-15:501, 32:662 -32:663 (2006); Maine, ME. REV. STAT. ANN. tit. 6, § 205 (2006); Maryland, MD. CODE ANN., CTS. & JUD. PROC. §§ 10-914, -1001 to -1003 (West 2006); Minnesota, MINN. STAT. §§ 634.15-16 (2006); Missouri, MO. REV. STAT. §§ 577.020, 577.037 (2006); Nevada, NEV. REV. STAT. §§ 50.315, 50.320, 50.325 (2006); New Jersey, N.J. STAT. ANN. § 2C:35-19 (West 2006); Ohio, OHIO REV. CODE ANN. § 2925.51 (West 2006); South Dakota, S.D. CODIFIED LAWS §§ 23-3-19, 1-49-6 (2006); Tennessee, TENN. CODE ANN. §§ 40-35-311, 40-28-122 (2006); Texas, TEX. CODE CRIM. PROC. ANN. art. 38.41 (Vernon 2004); South Carolina, S.C. R. CRIM. PRO. 6 (2006).

48. Alaska, ALASKA STAT. § 12.45.084 (2006); Delaware, DEL. CODE ANN. tit. 10, §§ 4330-4332 (2006); Illinois, 725 ILL. COMP. STAT. ANN. 5/115-15 (West 2000) (*but see* *People v. McClanahan*, 729 N.E.2d 470, 478 (Ill. 2000), holding the statute unconstitutional); Louisiana, LA. REV. STAT. ANN. §§ 15:499-15:501, 32:662 -32:663 (2006); Maryland, MD. CODE ANN., CTS. & JUD. PROC. §§ 10-914, -1001 to -1003 (West 2006); North Carolina, N.C. GEN. STAT. §§ 90-95(g), 20-139.1 (2006); North Dakota, N.D. CENT. CODE §§ 19-03.1-37, 39-20-07 (2006); Oregon, OR. REV. STAT. §§ 475.235, 40.460, 40.510 (2006); Pennsylvania, 75 PA. CONS. STAT. ANN. § 1547 (West 2006); Vermont, VT. STAT. ANN. tit. 23, §§ 1202, 1203 (2006), VT. STAT. ANN. tit. 13, § 4816 (2006); Virginia, VA. CODE ANN. §§ 18.2-268.7, 18.2-268.9, 19.2-187, 19.2-187.01, 19.2-187.02, 19.2-187.2 (2006). When the forensic report states the tester’s conclusions, but does not provide the underlying data, a rigorous scientific approach would presume the incompetence of the results. As one commentator has explained: “For a report from a crime laboratory to be deemed competent, I think most scientists would require it to contain a minimum of three elements: (a) a description of the analytical techniques used in the test requested by the government or other party, (b) the quantitative or qualitative results with any appropriate qualifications concerning the degree of certainty surrounding them, and (c) an explanation of any necessary presumptions or inferences that were needed to reach the conclusions.” *Symposium on Science and the Rules of Legal Procedure*, 101 F.R.D. 599, 632 (William A. Thomas ed., 1984).

49. This is true under both the *Daubert* test, 509 U.S. 579 (1993), and the *Frye* test, 293 F. 1013, 1014 (1923). Whether legislatures can require judges and juries to make specific factual findings is a subject that has been, and will continue to be, debated by scholars. Full exploration of this question is beyond the scope of this Article.

50. Kansas, KAN. STAT. ANN. §§ 22-2902a, 22-3437 (2006); Maine, ME. REV. STAT. ANN. tit. 6, § 205 (2006); New Jersey, N.J. STAT. ANN. § 2C:35-19 (West 2006); Texas, TEX. CODE CRIM. PROC. ANN. art. 38.41 (Vernon 2006); and Tennessee, TENN. CODE ANN. §§ 40-35-311, 40-28-122 (2006).

In many states, admission of hearsay forensic reports has become the prosecution's primary means of establishing forensic proof. Twenty-three states make a forensic report *de jure* or *de facto*, *prima facie* evidence of its contents.<sup>51</sup>

Finally, legislatures add a wide variety of incentives to discourage anyone from actually haling a state forensic examiner into court. Some incentives sweeten the pot for prosecutors by affecting trial-outcome. For example, in a controlled substance case, forensic proof is an element of the charged crime. Reliance on a forensic certificate rewards the State with a *prima facie* presumption that the prosecution has proven the truth of the report. This relieves the prosecution of its burden of proving this essential 'substance' element.<sup>52</sup> Thus, these statutes actively reward the cheating prosecutor. In contrast, if the prosecutor plays by the constitutional rules and introduces live witness testimony, the presumption evaporates.

Other state practices reward defendants who let the cheaters slide by and punish defendants who enforce the constitutional rules. Some state statutes impose formal sanctions on defendants who exercise their constitutional rights. In Alabama,<sup>53</sup> Alaska,<sup>54</sup> the

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51. See, e.g., ALASKA STAT. § 12.45.084 (Michie 2006); ARIZ. REV. STAT. § 36-254 (LexisNexis 2006); ARK. CODE ANN. § 5-64-707 (2006); CONN. GEN. STAT. § 21a-283(b) (2006); DEL. CODE ANN. tit. 10, §§ 4330-32 (2006); FLA. STAT. ANN. §§ 316.1934, 327.354 (West 2006); IDAHO CODE ANN. § 37-2745(e) (2006); IOWA CODE § 691.2 (2006); LA. REV. STAT. ANN. § 15:500 (2006); ME. REV. STAT. ANN. tit. 5, § 9057 (2006) (*prima facie* proof that the test was done correctly); MD. CODE ANN., CTS. & JUD. PROC. §§ 10-914, -1002 (West 2006); MASS. GEN. LAWS ch. 111, § 13 (2006); MASS. GEN. LAWS ch. 90, § 24 (2006); MASS. GEN. LAWS ch. 22C, §§ 39, 41 (2006); MINN. STAT. § 634.16 (2006); NEB. REV. STAT. § 28-1439 (2006); N.Y. C.P.L.R. 4518, 4520 (McKinney 2006); N.C. GEN. STAT. § 20-139.1 (2006); N.D. CENT. CODE § 39-20-07 (2006); OHIO REV. CODE ANN. § 2925.51 (West 2006); OR. REV. STAT. § 475.235 (2006); S.D. CODIFIED LAWS § 23-3-19 (2006); VT. STAT. ANN. tit. 23, §§ 1202, 1203 (2006); VA. CODE ANN. § 19.2-187 (2006); WASH. ST. SUPER. CT. CRIM. R. 6.13 (2006); WASH. ST. CRIM. R. CTS. LIM. JUR. 6.13 (2006).

52. For example, Delaware's Controlled Substance Act criminalizes the knowing or intentional possession, use or consumption of a controlled substance. DEL. CODE ANN. tit. 16, § 4753 (2006). A forensic certificate of analysis offered under DEL. CODE ANN. tit. 10, § 4330 establishes *prima facie* proof that the forensic conclusion is true. However, if the forensic examiner testifies, the report is no longer *prima facie* evidence of its contents. DEL. CODE ANN. tit. 10, §§ 4332(1), (2) (2006). While this is sensible from the perspective of traditional evidentiary law prohibiting a party from bolstering its own witness's testimony, it also creates an institutional prosecutorial preference for the use of a certificate in lieu of a live witness. See also LA. REV. STAT. ANN. § 15:501(B)(1) (2006) (noting that when the forensic examiner testifies, "the certificate shall not be *prima facie* proof of its contents or of proper custody").

53. ALA. CODE §§ 12-21-300 to -302 (2006) ("If the request for subpoena is granted, and the requesting party subsequently fails to conduct the cross-examination previously certified to, the court shall assess against the requesting party, all necessary and reasonable expenses incurred for the attendance in court of the certifying witness.").

54. ALASKA STAT. § 12.45.084 (LexisNexis 2006).

District of Columbia,<sup>55</sup> Louisiana,<sup>56</sup> Montana,<sup>57</sup> New Jersey,<sup>58</sup> North Dakota,<sup>59</sup> Rhode Island,<sup>60</sup> and Tennessee,<sup>61</sup> a defendant who requires the government to produce the forensic witness but, at trial, waives cross-examination, pays the costs associated with the witness's appearance.<sup>62</sup>

Informally, defendants who insist on confronting the forensic witness may experience an extra "trial penalty," in excess of whatever sentencing increase typically is imposed upon the defendant who goes to trial. After all, these statutes promote a normative expectation that, even in those few cases that proceed to trial, judges need not spend their time listening to, and ruling on, evidence about forensic testing. Thus, defendants who go to trial and challenge forensic analyses receive not only the usual trial penalty informally imposed on "difficult" defendants, but also an additional sentencing bump imposed by an impatient judge who cannot understand why the defendant insisted on challenging the forensic conclusions when "everyone knows these tests are reliable."

### III. CHALLENGING THE MYTH OF RELIABILITY

The legal community now concedes, with varying degrees of urgency, that our system produces erroneous convictions based on discredited forensics.<sup>63</sup> The renowned Innocence Project of Cardozo Law School has demonstrated that forensic fraud, forensic error, and "bad science" were significant factors in the first seventy wrongful

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55. D.C. CODE ANN. § 48-905.06 (LexisNexis 2006).

56. LA. REV. STAT. ANN. §§ 15:499-501 (2006).

57. MT. ST. REV. 803(6), (8) (2006).

58. N.J. STAT. ANN. § 2C:35-19 (West 2006).

59. N.D. CENT. CODE. § 19-03.1-37 (2006).

60. R.I. GEN. LAWS § 9-19-43 (2006).

61. TENN. CODE ANN. § 40-35-311 (2006).

62. As discussed *supra* in note 28, these statutes may also create a conflict of interest between defendants and their counsel.

63. See, e.g., EDWARD CONNORS ET AL., U.S. DEPT' OF JUSTICE, CONVICTED BY JURIES, EXONERATED BY SCIENCE: CASE STUDIES IN THE USE OF DNA EVIDENCE TO ESTABLISH INNOCENCE AFTER TRIAL 33-76 (1996) (discussing the first 28 DNA exonerations); Craig M. Cooley, *Reforming the Forensic Science Community to Avert the Ultimate Injustice*, 15 STAN. L. & POL'Y REV. 381, 387-408 (2004) ("[T]he forensic science community is having difficulty establishing its competence and proficiency."); Paul C. Giannelli, *The Abuse of Scientific Evidence in Criminal Cases: The Need for Independent Crime Laboratories*, 4 VA. J. SOC. POL'Y & L. 439, 441-69 (1997) ("[M]ajor abuses in the use of scientific evidence have surfaced, including perjury by expert witnesses, faked laboratory reports, and testimony based on unproven techniques."); Innocence Project, <http://www.innocenceproject.org> (last visited Jan. 26, 2006) ("a non-profit legal clinic and criminal justice resource center . . . [which] work[s] to exonerate the wrongfully convicted through post-conviction DNA testing").

convictions that were reversed when the Innocence Project used DNA to exonerate those innocent persons.<sup>64</sup>

Possible sources of error abound. The scientific methodology may be unsound. The testing equipment may malfunction. The testing specimen may be contaminated, either deliberately or inadvertently. The chain of custody may be broken, so that substances are linked to the wrong defendants. The tester may err in conducting the forensic examination or in interpreting the test results. Clerical errors may occur in the transcription and recording of forensic test results, and tester dishonesty may produce deliberate misrepresentation of test results. Yet, the purported reliability of state forensic testing has long been used as a justification for the forensic *ipse dixit* legislation.<sup>65</sup>

Two core assumptions lead legislatures and courts to treat state forensic laboratory evidence as reliable. Others have written eloquently and with great scientific precision about the vices of these assumptions as applied to specific types of forensic testing.<sup>66</sup> However,

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64. See Innocence Project, About the Innocence Project, <http://www.innocenceproject.org> (last visited Jan. 26, 2006) (discussing the use of DNA to exonerate innocent persons); see also CONNORS, *supra* note 63, at 33-76 (discussing the first 28 DNA exonerations); JIM DWYER ET AL., ACTUAL INNOCENCE: FIVE DAYS TO EXECUTION AND OTHER DISPATCHES FROM THE WRONGLY CONVICTED 244-52 (2000) ("Forensic scientists shade their conclusions or skip the tests altogether, to accommodate a presumption of guilt.")

65. See, e.g., Sherman v. Scott, 62 F.3d 136, 142 (5th Cir. 1995) ("cross-examination of the chemists who prepared the report would have been of little use"); Minner v. Kerby, 30 F.3d 1311, 1314-15 (10th Cir. 1994) (asserting that the laboratory notes were trustworthy because, *inter alia*, they "concern mechanically objective tests," "were taken contemporaneously with the performance of the tests," and the chemist appeared to have followed standard laboratory procedures); United States v. Baker, 855 F.2d 1353, 1360 (8th Cir. 1988), *cert. denied*, 490 U.S. 1069 (1989); Reardon v. Manson, 806 F.2d 39 (2d. Cir. 1986), *cert. denied*, 481 U.S. 1020 (1987) (asserting that laboratory reports were sufficiently reliable to obviate need for cross-examination where the chemists analyzed thousands of compounds each year); Brown v. United States, 627 A.2d 499, 507 (D.C. 1993) (deeming the state-generated laboratory report "inherently reliable"); see also State v. Hudson, No. 79010, 2002 WL 472304, at \*3 (Ohio Ct. App. Mar. 28, 2002) ("The trustworthiness of such analyses has long been recognized by the courts."); State v. Hancock, 825 P.2d 648, 651 (Or. Ct. App. 1992) (referring to legislative findings that "representatives from the Oregon State Police and the Oregon District Attorneys' Association testified that they could not recall any cases of drugs being misidentified by laboratory analysis," and that "the accuracy of the chemical analysis of an alleged controlled substance by the laboratory is almost never challenged"); Howard v. United States, 473 A.2d 835, 839 (D.C. 1984) ("[T]he fact sought to be established through admission of the DEA [chemist] reports, is determined by a well recognized chemical procedure. Thus, the reports contained objective facts rather than expressions of opinion."). *But see* Hudson, 2002 WL 472304, at \*10 (Karpinski, J., dissenting) ("This last year, newspapers have reported instances across the nation of technicians falsifying chemical lab reports. How trustworthy is a report if the person who prepared it has [not] . . . testified under oath at a trial? A major test of reliability is that oath.")

66. See, e.g., Alfred Biasotti & John Murdock, *The Scientific Basis of Firearms and Toolmark Identification: Areas of Scientific Disagreement*, in 3 MODERN SCIENTIFIC EVIDENCE: THE LAW AND SCIENCE OF EXPERT TESTIMONY § 29-2.3 (David L. Faigman et al. eds., 2002); C.

in order to contextualize the concept of constitutional cheating, this Article briefly discusses why these assumptions are unwarranted.

Common human experiences remind us that “science” changes with human progress. Scientific analyses are not static and neither are the substances, both legal and illegal, that laboratories are asked to test. For example, during the 1970s and 1980s the standard forensic tests for determining the identity of a controlled substance were the “color test” and the “crystal test”. Both were routinely used by forensic analysts, and the forensic results were routinely cited as proof that a tested specimen contained a controlled substance. As drug testing science evolved, however, it became clear that the color and crystal tests produced an unacceptably high number of false positives.<sup>67</sup>

State forensic examiners then turned to thin layer and gas liquid chromatography.<sup>68</sup> However, these methods also proved undesirable and are now considered unacceptably prone to operator error in both test performance and data interpretation.<sup>69</sup> In early 2005, infrared and mass spectrometry are the favored diagnostic methods among knowledgeable analysts.<sup>70</sup> Even spectrometry, however, can be unreliable as street drug technology outstrips laboratory testing knowledge and legislative prohibitions. When used to analyze street drugs on the street market, the spectrometry methodology can only identify those drugs that are 90 to 95 percent pure.<sup>71</sup> Since most street drugs are cut with substances that increase

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Michael Bowers, *Identification from Bitemarks: Proficiency Testing of Board Certified Odontologists*, in 3 MODERN SCIENTIFIC EVIDENCE: THE LAW AND SCIENCE OF EXPERT TESTIMONY § 30-2.1.3 (David L. Faigman et al. eds., 2002); Tamara F. Lawson, *Can Fingerprints Lie?: Reweighing Fingerprint Evidence in Criminal Jury Trials*, 31 AM. J. CRIM. L. 1, 37-48 (2003); Richard Lempert, *After the DNA Wars: Skirmishing with NRC II*, 37 JURIMETRICS J. 439, 465-68 (1997) (“DNA evidence is routinely evaluated and presented in court in ways that risk substantially overstating its incriminating power.”); Michael J. Saks, *The Legal and Scientific Evaluation of Forensic Science (Especially Fingerprint Expert Testimony)*, 33 SETON HALL L. REV. 1167, 1170-86 (2003).

67. Some laboratories produced false positives in as many as 20 to 30 percent of the color and crystal tests they performed. PAUL C. GIANNELLI & EDWARD J. IMWINKELRIED, 2 SCIENTIFIC EVIDENCE § 23-2(B), at 355 (3d ed. 1999).

68. See James M. Shellow, *The End of a Confidence Game: A Possible Defense to the Impossible Drug Prosecution*, THE CHAMPION, Aug./Sept. 2000, at 22, 23. For an explanation of this testing methodology and an assessment of its associated error rate, see 2 DAVID BERNHEIM, DEFENSE OF NARCOTICS CASES § 4.08 (2001).

69. BERNHEIM, *supra* note 68, § 4.08[4]-[5].

70. Shellow, *supra* note 68, at 23-24. For a detailed explanation of these testing processes, see BERNHEIM, *supra* note 68, § 4.13.

71. GIANNELLI & IMWINKELRIED, *supra* note 67, § 23-3(A), at 390.

the drug's volume and decrease drug's purity, this poses a significant and ongoing obstacle to accurate forensic identification.<sup>72</sup>

Moreover, laboratory error and operator error exist even with the most well-established or unassailable scientific method.<sup>73</sup> Many courts naïvely assume that laboratory workers are professionals with a great deal of training and little motive to falsify their reports.<sup>74</sup> To the contrary, forensic accuracy is limited by "the limitations of the technician."<sup>75</sup> Untold numbers of laboratory workers do not have any professional training in the science or technology that they use.<sup>76</sup> According to the American Society of Crime Laboratory Directors, of the 400-500 laboratories conducting forensic examinations for criminal trials, only 283 are accredited.<sup>77</sup>

Moreover, laboratory employees who prepare forensic *ipse dixit* certifications often lack the education or experience that would be necessary for them to testify, as experts, about the scientific results they have certified.<sup>78</sup> If these testers cannot accurately read and report the forensic data, their truthfulness is irrelevant. The results

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72. For example, the Wisconsin State Crime Laboratory has mistakenly identified anti-ulcer medication as heroin. Shellow, *supra* note 68, at 22, n.6 (citing XXVIII MICROGRAM 2 (Jan. 1995)).

73. For example, in *California v. Trombetta*, 467 U.S. 479 (1984), the Supreme Court touted the reliability of the Intoxilyzer, stating that "[o]nce the Intoxilyzer indicate[s] that respondents were legally drunk, breath samples [preserved for retesting by the defendants are] much more likely to provide inculpatory than exculpatory evidence." *Id.* at 489. Yet the Court insisted that "as to operator error, the defendant retains the right to cross-examine the law enforcement officer who administered [the scientific test], and to attempt to raise doubts in the mind of the factfinder whether the test was properly administered." *Id.* at 490.

74. See, e.g., *United States v. Curtis*, 755 A.2d 1011, 1016 (D.C. 2000) (Drug Enforcement Agency "chemists who conduct such analyses do so routinely and generally do not have an interest in the outcome of trials. In fact, as employees and scientists, they are under a duty to make accurate reports. It is difficult to perceive any motive or opportunity for the chemists to falsify." (quoting *Howard v. United States*, 473 A.2d 835, 839 (D.C. 1984)) (quotations omitted).

75. Shellow, *supra* note 68, at 24.

76. One commentator has noted that "[w]e suffer from a shortage of truly competent experts and facilities and an equally important shortage of independent means to evaluate the competency of individuals and facilities. Too many individuals who testify in court offer their services purely as self-professed experts. [ . . . ] In spite of being a firm advocate of forensic science, I must acknowledge that a disturbingly high percentage of laboratories are not performing routine tests competently, as shown by our proficiency testing." *Symposium on Science and the Rules of Legal Procedure*, *supra* note 48, at 645 (quoting Professor Joseph Peterson).

77. For a list of ASCLD accredited labs, see American Society of Crime Laboratory Directors, Laboratory Accreditation Board, <http://www.ascl-d-lab.org/legacy/asclablegacylaboratories.html> (last visited Jan. 26, 2006).

78. See, e.g., Shellow, *supra* note 68, at 22 ("Few analysts have even a rudimentary understanding of the scientific method."); accord David A. Stony, *A Medical Model for Criminalistics Education*, 33 J. FORENSIC SCI. 1086, 1088 (1988) ("What are the entry requirements [to forensic science]? Employment and function. One joins the profession when one is hired by a crime laboratory and when one begins to write reports and to testify in court.").

are disastrous.<sup>79</sup> For example, in Baltimore, Maryland, 480 criminal convictions had to be reexamined when investigators discovered that crime laboratory chemist, Concepcion Bacasnot, “did not understand the science of her forensic tests,” and therefore produced serology results that were sometimes “worthless.”<sup>80</sup> Similarly, an audit in Arizona showed that technicians at the Phoenix Crime Lab used incorrect mathematical computations in calculating the likelihood that DNA samples matched the charged defendants.<sup>81</sup>

No one should assume that these errors plague only some states, or that particular laboratories or particular law enforcement agencies produce presumptively reliable forensic results. The Federal Bureau of Investigation often analyzes evidence that has been gathered and stored by state crime laboratories. The accuracy of FBI testing therefore depends, in part, upon state quality control procedures. When the collecting laboratory contaminates samples or fails to accurately identify and store testing samples, the subsequent forensic inquiry lacks scientific integrity.<sup>82</sup> Although recent examples of this type of “link in the chain” forensic error abound, the most startling have been observed in Texas. Because of gross state laboratory failures, the FBI no longer collects database DNA samples from forensic laboratories in Dallas, Forth Worth, or Houston.<sup>83</sup>

Failures to follow laboratory protocol cause other forensic errors. Even knowledgeable laboratory workers sometimes engage in sloppy laboratory work or cut corners on important confirmatory tests. For example, in Florida, a routine quality assurance check caught a laboratory technician falsifying DNA evidence rather than performing confirmation tests.<sup>84</sup> Police and prosecutors may also pressure

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79. William C. Thompson, *Review of DNA Evidence in State v. Josiah Sutton*, SCIENTIFIC TESTIMONY, Feb. 6, 2003, at 1-2, available at <http://www.scientific.org/archive/Thompson%20Report.PDF>.

80. Stephanie Hanes, *Chemist Quit Crime Lab Job After Hearing, Papers Show; She Acknowledged Report Was “Worthless” in 1987*, BALT. SUN, Mar. 19, 2003, at 1B.

81. See Carlos Miller, *Phoenix Police Lab Errs on DNA: 9 Cases Under Review After Mistakes Found*, ARIZONA REPUBLIC, May 6, 2003, at B1.

82. Obviously the failure to follow chain of custody procedures also renders evidence inaccurate or irrelevant.

83. The DNA department of the Houston Crime Laboratory was shut down indefinitely in December 2003 due to an internal audit that discovered “widespread problems with personnel, procedures and facilities.” Roma Khanna & Steve McVicker, *State Might Overhaul Crime Labs; Legislators Look at Oversight Panel, Regional Facilities*, HOUSTON CHRONICLE, Feb. 20, 2005, at B1. “According to the audit, lab workers were insufficiently trained, did not follow standard scientific protocols and gave trial testimony based on questionable lab results.” Armando Villafranca, *Crime Lab Probe Looks Beyond Harris County; Evidence in 14 Outside Cases Was Tested at Houston Facility*, HOUSTON CHRONICLE, April 16, 2003, at A27.

84. Rene Stutzman, *State DNA Analyst’s Data Forgeries Could Result in New Trial for Rapist*, ORLANDO SENTINEL, July 25, 2002, A1.

laboratory workers to produce quick results. The pressure may discourage full compliance with laboratory protocol, leading to shoddy performance and inaccurate results.<sup>85</sup>

Ignorance, error, and laziness are not the only reason that laboratory results may lack reliability. Bias plays an important role. Conscious or subconscious tester bias may slant the interpretation and conclusion drawn from a forensic test. While crime laboratory workers may be less personally invested in a case than are police investigators, laboratory workers may nevertheless have a similar pro-prosecution bias.<sup>86</sup> After all, they are either state employees or employees of a state contractor, working in a laboratory that exists “in large part to facilitate the investigation and prosecution of crimes.”<sup>87</sup> When state crime laboratory workers generate forensic reports they act “as an arm of the State in assisting it to prevail in litigation and secure a conviction of the defendant.”<sup>88</sup> These laboratory workers devote themselves almost exclusively to analysis of samples submitted by law enforcement.<sup>89</sup> “They inevitably become part of the effort to bring an offender to justice” and share a “viewpoint colored brightly with prosecutorial bias.”<sup>90</sup> Indeed, in many cases “forensic scientists have exaggerated positive results in favor of the prosecution and downplayed negative results.”<sup>91</sup>

Forensic examiners are also keenly aware that police investigators have hand-picked the particular samples and substances that the police want to have tested. The forensic team is, in turn,

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85. See Ruth Teichroeb, *Rare Look Inside State Crime Labs Reveals Recurring Problems: 23 Cases in 3 Years Had DNA Test Errors*, SEATTLE POST-INTELLIGENCER, July 22, 2004, at A1. According to an internal investigation launched in response to revelations of laboratory negligence, analysts “rushed [their] work in order to satisfy police.” *Id.* The report noted that “[t]he quality of interpretations and data review should not be compromised under pressure from the submitting agencies to prematurely release results.” *Id.*

86. See D. Michael Risinger et al., *The Daubert/Kumho Implications of Observer Effects in Forensic Science: Hidden Problems of Expectation and Suggestion*, 90 CAL. L. REV. 1, 19 (2002).

87. *State v. Williams*, 644 N.W. 2d 919, 931 (Wis. 2002). Many courts overlook this institutional loyalty when they evaluate the reliability of state laboratory reports. As discussed previously, the failure to treat laboratory workers as part of the prosecution team has led some courts and legislatures to treat state laboratory reports like business records or public records that are exempted from the usual hearsay rules. See *supra* note 65.

88. *Williams*, 644 N.W. 2d at 931.

89. Risinger et al., *supra* note 86, at 19 (quoting James E. Starrs, *The Ethical Obligations of the Forensic Scientist in the Criminal Justice System*, 54 J. ASS'N OFFICIAL ANALYTICAL CHEMISTS 906, 910 (1971)).

90. *Id.*

91. Myrna Raeder, *What Does Innocence Have To Do With It?: A Commentary on Wrongful Convictions and Rationality*, 2003 MICH. ST. L. REV. 1315, 1319 (citing D. Michael Risinger & Michael J. Saks, *Rationality, Research and Leviathan: Law Enforcement-Sponsored Research and the Criminal Process*, 2003 MICH. ST. L. REV. 1023, 1042).

likely to rely upon a confirmation bias that inclines them to affirm the hypothesis inherent in sample submission: the crime scene sample matches the “target” sample.<sup>92</sup> Thus, “the seeds for erroneous convictions are sown in the investigative stage.”<sup>93</sup> Convinced of their hypothesis about guilt and the correlative forensic outcomes that would prove a defendant’s guilt, “officers and prosecutors either don’t realize the significance or accuracy of exculpatory evidence or on occasion affirmatively conceal it because they are convinced of the suspect’s guilt.”<sup>94</sup> This phenomenon increases the likelihood that an examiner will only observe inculpatory results.<sup>95</sup> When investigators drop hints about the nature of the sample or its forensic origins, the likelihood of an inculpatory conclusion again increases.<sup>96</sup> The submission of a sample is often itself a message from the investigator to the examiner, which may influence the conclusions of even the most honest examiner.<sup>97</sup> Some laboratories even permit investigators to communicate directly with forensic workers, informing them of the investigator’s hypothesis about the crime.<sup>98</sup>

Prosecutors also play a part in biasing forensic outcomes. A recent study commissioned by the Federal Bureau of Investigation noted that prosecutors sometimes pressure examiners to “push the envelope” in assessing and reporting test results.<sup>99</sup> Laboratory

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92. Risinger et al., *supra* note 86, at 7 n.22 (citing ARTHUR S. REBER, THE PENGUIN DICTIONARY OF PSYCHOLOGY 151 (2d ed. 1995) (defining confirmation bias as “[t]he tendency to seek and interpret information that confirms existing beliefs”).

93. Raeder, *supra* note 91, at 1327.

94. *Id.* (citing Michael J. Saks & D. Michael Risinger, *Baselines, The Presumption of Guilt, Admissibility Rulings, and Erroneous Convictions*, 2003 MICH. ST. L. REV. 1051, 1056-57). Saks and Risinger argue for a requirement that investigators search for evidence that contradicts the guilt hypothesis.

95. Saks & Risinger, *supra* note 94, at 1058.

96. *Id.* For a particularly egregious example of how investigator-examiner communications affect outcomes, see Giannelli, *Admissibility of Lab Reports: The Right of Confrontation Post-Crawford*, *supra* note 20, at 31. Professor Giannelli points to the case of *Stevens v. Bordenkircher*, 746 F.2d 342 (6th Cir. 1984), in which the state introduced an autopsy report that specified that the cause of death was a gunshot wound. An evidentiary hearing revealed that the coroner never conducted an autopsy and could not independently determine the cause of death. *Id.* at 345-46. The autopsy “report” was based entirely upon the police investigator’s statements to the examiner to the effect that the deceased had been shot. *Id.*

97. For a discussion of scientific observer errors and the absence of adequate control measures, see Risinger et al., *supra* note 86, at 27-56.

98. *Id.* at 32.

99. COMM. ON SCIENTIFIC ASSESSMENT OF BULLET LEAD ELEMENTAL COMPOSITION COMPARISON, NAT’L RESEARCH COUNCIL, FORENSIC ANALYSIS: WEIGHING BULLET LEAD EVIDENCE 106 (2004) [hereinafter WEIGHING BULLET LEAD EVIDENCE]. Of course, ethical rules prohibit this type of prosecutorial misconduct. See generally AM. BAR ASS’N, STANDARDS FOR CRIMINAL JUSTICE 3-3.3(a) (3d ed. 1993) (“A prosecutor who engages an expert for an opinion

workers respond by producing accordingly. False-positive matches are “classic error[s] that [reflect] a bias on the part of the analyst wanting to make a match.”<sup>100</sup>

Even the laboratory report itself may contribute to inaccurate case outcomes. Laboratory reports are often deceptively straightforward. This type of evidentiary simplification seems to require “a measure of falsification.”<sup>101</sup> Nowhere is this more true than in the simplification of scientific conclusions.

First, testing outcomes are often less straightforward than the forensic conclusions advanced in the laboratory report. Squeezing forensic science into a criminal trial framework encourages examiners to reduce a complex forensic outcome into a “yes or no” answer to a forensic question.<sup>102</sup> Regardless of the declarant’s intent, a report that provides forensic “outcomes” may well exaggerate forensic reliability or conceal forensic ambiguities.<sup>103</sup> For example, in 2004, at the FBI’s request, the prestigious National Research Council reviewed the scientific evidence used in criminal cases involving ballistics. The report concluded that experts sometimes exaggerated the scientific reliability and relevance of their test results.<sup>104</sup> For instance, although “[d]etailed patterns of the distribution of ammunition are unknown,” experts often drafted laboratory reports indicating that they had “matched” ammunition found at the crime scene to ammunition connected to the defendant.<sup>105</sup>

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should respect the independence of the expert and should not seek to dictate the formation of the expert’s opinion on the subject.”).

100. Teichroeb, *supra* note 85 (quoting Janine Arvizu, the auditor in charge of the investigation). One analyst whose work was called into question responded that she “frankly had a brain fart.” *Id.* Forensic scientist Denise Olson explained, “We’re all human . . . . I tried not to let [police bias] influence me. But I can’t say it never does.” *Id.*

101. *Lee v. Illinois*, 476 U.S. 530, 544 n.4 (1986) (quoting E. MCCLEARY, MCCORMICK ON EVIDENCE § 246, at 584 (2d ed. 1972)).

102. In cases involving forensic evidence, “probabilistic evidence is becoming increasingly common and important at trial.” Raeder, *supra* note 91, at 1318. Forensic *ipse dixit* procedures further exacerbate this problem since the “conclusion” required by a forensic report requires the expert to draw “a line or threshold that presumes or determines the answer” to a complex and probabilistic factual issue. 4 AM. JUR. 3D *Proof of Facts* § 24 (2005). Moreover, many wrongful convictions “occur in cases where experts present forensic evidence, much of it in probabilistic form” as is required by the nature of the science itself. Raeder, *supra* note 91, at 1319.

103. As a result, the NRC urged that “a further explanatory comment should accompany the laboratory conclusions to readily portray the limitations of the evidence.” WEIGHING BULLET LEAD EVIDENCE, *supra* note 99, at 110.

104. *Id.* at 7 (“[Compositional analysis of bullet lead] does not, however, have the unique specificity of techniques such as DNA typing to be used as stand-alone evidence. It is important that criminal justice professionals and juries understand . . . the significant limitations of this forensic technique.”).

105. *Id.*

Slanted reports are not the worst examples of abuses by forensic examiners. The case of West Virginia State Trooper Fred Zain illustrates how state crime laboratory workers can, and do, engage in long-term, systematic, and deliberate falsification of evidence in criminal cases.<sup>106</sup> From 1979 to 1989, Zain worked as a forensic serologist in the West Virginia Department of Public Safety. In 1990, Zain became the chief of physical evidence for the medical examiner in Bexar County, Texas.

During his tenure as serologist for the West Virginia State Police, Zain performed, and drafted reports on, over one hundred forensic tests.<sup>107</sup> He also disregarded laboratory procedures, altered laboratory records, and deliberately misreported testing outcomes.<sup>108</sup> Because Zain's testing results and his expert courtroom testimony were often "scientifically inaccurate, invalid, or false,"<sup>109</sup> a specially-appointed habeas court concluded that, "as a matter of law, any testimonial or documentary evidence offered by Zain at any time in any criminal prosecution should be deemed invalid, unreliable, and inadmissible."<sup>110</sup>

There is little reason to view Zain's downfall as evidence that "the system is working" in rooting out careless, lazy, and dishonest laboratory workers. Deficient laboratory procedures "undoubtedly contribut[ed] to an environment in which Zain's misconduct escaped detection."<sup>111</sup> Those types of deficiencies make all forensic outcomes fair game for adversarial inquiry.<sup>112</sup> Institutional management

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106. *In re W. Va. State Police Crime Lab., Serology Div.*, 438 S.E.2d 501, 503-04 (W. Va. 1993). West Virginia's forensic *ipse dixit* statute applies only to DUI cases. One wonders whether Zain's misconduct would have been uncovered if West Virginia had had a forensic *ipse dixit* procedure for proving toxicology and serology outcomes.

107. *Id.* at 511.

108. *Id.* at 503. A report by the Laboratory Accreditation Board of the American Society of Crime Laboratory Directors (ASCLD/LAB) concludes that Zain's misconduct included: "(1) overstating the strength of results; (2) overstating the frequency of genetic matches on individual pieces of evidence; (3) misreporting the frequency of genetic matches on multiple pieces of evidence; (4) reporting that multiple items had been tested, when only a single item had been tested; (5) reporting inconclusive results as conclusive; (6) repeatedly altering laboratory results; (7) grouping results to create the erroneous impression that genetic markers had been obtained from all samples tested; (8) failing to report conflicting results; (9) failing to conduct or to report conducting additional testing to resolve conflicting results; (10) implying a match with a suspect when testing supported only a match with the victim; and (11) reporting scientifically impossible or improbable results." *Id.*

109. *Id.*

110. *Id.* at 520.

111. *Id.* at 504.

112. These procedural deficiencies included: "(1) no written documentation of testing methodology; (2) no written quality assurance program; (3) no written internal or external auditing procedures; (4) no routine proficiency testing of laboratory technicians; (5) no technical review of work product; (6) no written documentation of instrument maintenance and

failures, like those of Zain's supervisors, who "may have ignored or concealed complaints of his misconduct," produce institutional outcome failures.<sup>113</sup> Thus, Zain, and others like him, may represent the tip of the forensic inaccuracy iceberg.

#### IV. CONFRONTATION

The forensic *ipse dixit* statutes swindle defendants out of the Confrontation Clause's "bedrock procedural guarantee."<sup>114</sup> As discussed *supra*, for nearly thirty years, state legislatures have routinely stacked the deck, dealing the state a hand that virtually guarantees the admission of untested forensic reports. The justification has been reliability; the goal has been systemic economy. Despite the prosecution of thousands upon thousands of cases in which the state has had the advantage of presenting forensic hearsay, few defendants have successfully challenged the deprivation of the confrontation right.

*Crawford v. Washington* may have forced courts to reexamine this constitutional legerdemain. After all, confrontation is "an essential and fundamental requirement for the kind of fair trial which is this country's constitutional goal."<sup>115</sup> But, even as some courts strike down forensic *ipse dixit* statutes, legislatures and prosecutors promote new versions of the constitutional con game.<sup>116</sup>

This Part reviews the central premise of the Supreme Court's Confrontation Clause jurisprudence and the analysis that courts must perform under the *Crawford* decision. Straight-forward application of *Crawford* demonstrates that the forensic *ipse dixit* statutes are unconstitutional.<sup>117</sup>

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calibration; (7) no written testing procedures manual; (8) failure to follow generally-accepted scientific standards with respect to certain tests; (9) inadequate record-keeping; and, (10) failure to conduct collateral testing." *Id.* at 504 (quoting ASCLD/LAB report).

113. *Id.* Even the much-vaunted FBI laboratory suffers from human error and malfeasance. Recently FBI Ballistics Examiner Kathleen Lundy made false forensic allegations at the 2002 trial of Shane Ragland, who was convicted of killing University of Kentucky football player Trent DiGiuro. Maurice Possley, *Study Shoots Holes in Bullet Analyses by FBI*, CHI. TRIB., Feb. 11, 2004, at C14.

114. *Crawford v. Washington*, 541 U.S. 36, 42 (2004).

115. *Pointer v. Texas*, 380 U.S. 400, 405 (1965).

116. For example, spurred by successful defense challenges to state forensic claims about blood alcohol levels, the Washington state legislature enacted a statute requiring trial courts to accept, as true, forensic conclusions by the state regarding blood alcohol levels. I am grateful to the crimprof list serve correspondents for their insightful comments about this statute (e-mails on file with author).

117. Of course, as discussed in Part VI.A., a defendant always has the option of stipulating to the contents of the forensic report. The precise constitutional requirements necessary to demonstrate a constitutionally valid agreement to forgo cross-examination is a subject beyond

Practitioners and academics generally agree that the primary goal of the Confrontation Clause is to ensure the reliability of evidence. The procedural means to that substantive end are trial processes that permit the jury to watch accuser and accused face each other: the accuser makes her claims in the defendant's presence, and the accused tests the accuser in the "crucible of cross-examination."<sup>118</sup>

Each aspect of this procedure advances the search for reliability. First, the witness "stand[s] face to face with the jury in order that they may look at him, and judge by his demeanor upon the stand and the manner in which he gives his testimony whether he is worthy of belief."<sup>119</sup> Second, the cross-examination permits the defense to test the witness's recollection and to "sift[] the conscience of the witness."<sup>120</sup> Witnessing cross-examination helps "the jury to unmask false accusers."<sup>121</sup> Another, less frequently identified function of the Confrontation Clause is its deterrent effect upon falsification of records and reports, and its corresponding encouragement of careful recordkeeping and documentation of evidence.<sup>122</sup> Measured against any of these functions, the forensic *ipse dixit* statutes fail to serve the constitutional goals of the Confrontation Clause.

In *Crawford*, the Supreme Court reaffirmed its commitment to an historical-functionalist view of the Confrontation Clause.<sup>123</sup> The Confrontation Clause must be interpreted in a manner that permits it to guard against the evils the Framers sought to avoid.<sup>124</sup> The Confrontation Clause thus seeks to eliminate the use of "ex parte examinations as evidence against the accused."<sup>125</sup> Those ex parte and

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the scope of this Article. However, as discussed in Part IV.E., the "demand waiver" doctrine employed in the forensic proof-by-affidavit statutes fails constitutional muster.

118. *Crawford*, 541 U.S. at 60.

119. *Barbier v. Page*, 390 U.S. 719, 721 (1968) (quoting *Mattox v. United States*, 156 U.S. 237, 242-43 (1895)).

120. *Id.*

121. Carol A. Chase, *The Five Faces of the Confrontation Clause*, 40 HOUS. L. REV. 1003, 1012 (2003).

122. For example, almost all state employees who may be called to testify in criminal trials receive training in techniques of trial testimony. Their training also includes preemptive tactics to be used in recordkeeping and documentation of the chain of custody, in order to forestall successful cross-examination or impeachment.

123. *Crawford*, 541 U.S. at 50-61; see *Lee v. Illinois*, 476 U.S. 530, 540 (1985) (holding that the "right to confront and cross-examine witnesses is primarily a functional right").

124. *Crawford*, 541 U.S. at 42-43; accord *Kentucky v. Stincer*, 482 U.S. 730, 737 (1987) (asserting that the Confrontation Clause creates "a 'functional' right designed to promote reliability in the truth-finding functions of a criminal trial"). For a discussion of a similar functionalist approach to other important Sixth Amendment guarantees, see Pamela R. Metzger, *Beyond the Bright-Line: A Contemporary Right to Counsel Doctrine*, 97 NW. U. L. REV. 1635, 1689-99 (2003).

125. *Crawford*, 541 U.S. at 50.

unexamined modes of evidence are the principal evil that animated the Framers' enactment of the Confrontation Clause.<sup>126</sup>

*Crawford* stressed that the Confrontation Clause applies to all “*ex parte* in-court testimony or its functional equivalent—that is, material such as affidavits, custodial examinations, prior testimony that the defendant was unable to cross-examine”—that is offered to prove a fact at trial.<sup>127</sup> The Court noted that the “Framers would not have allowed admission of testimonial statements of a witness who did not appear at trial unless he was unavailable to testify, and the defendant had had a prior opportunity for cross-examination.”<sup>128</sup> Those same restrictions now protect modern-day criminal defendants.<sup>129</sup>

The *Crawford* decision changed the analytic structure of confrontation jurisprudence, reversing nearly twenty-five years of case law generated by *Ohio v. Roberts*.<sup>130</sup> *Ohio v. Roberts* “condition[ed] the admissibility of all hearsay evidence on whether it [fell] under a ‘firmly rooted hearsay exception’ or [bore] ‘particularized guarantees

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126. *Id.*

127. *Id.* at 51.

128. *Id.* at 53-54.

129. The *Crawford* Court considered, and rejected, a strict textual analysis of the Confrontation Clause. 541 U.S. at 42-43 (“The Constitution’s text does not alone resolve this case. One could plausibly read ‘witnesses against’ a defendant to mean those who actually testify at trial, those whose statements are offered at trial, or something in-between.”) (internal citations omitted). Instead the Court considered the history of the Confrontation Clause. *Id.* at 43-50. The Court reviewed the constitutional debates and noted that Federalists and Anti-Federalists alike abhorred the use of *ex parte* statements. *Id.* at 48-50. The Court quoted early constitutional debates comparing the use of uncross-examined statements with the Spanish Inquisition and quoted, with approval, the Federal Farmer’s assessment of written evidence: “written evidence . . . [is] almost useless; it must be frequently taken *ex parte*, and but very seldom leads to the proper discovery of truth.” *Id.* at 49 (quoting R. LEE, LETTER IV BY THE FEDERAL FARMER (OCT. 15, 1787), reprinted in 1 THE BILL OF RIGHTS: A DOCUMENTARY HISTORY 469, 473 (Bernard Schwartz ed., 1971)). The Court attributed these rationales to the First Congress’s inclusion of “the Confrontation Clause in the proposal that became the Sixth Amendment.” *Id.*

130. *Ohio v. Roberts*, 448 U.S. 56, 67-73 (1990). This may be an overstatement, since the Court made clear that the Confrontation Clause is primarily directed at testimonial statements. It remains unclear whether, and to what extent, the *Ohio v. Roberts* test governs the admission of nontestimonial hearsay offered against a criminal defendant. *Crawford* dictates that the testimonial nature of an out-of-court statement triggers the Confrontation Clause analysis. 541 U.S. at 53-54. For a preliminary assessment of the viability of the *Ohio v. Roberts* doctrine, see Chris Hutton, *Sir Walter Raleigh Revived: The Supreme Court Re-vamps Two Decades of Confrontation Clause Precedent with Crawford v. Washington*, 50 S.D. L. REV. 41, 45-50 (2004); Miguel A. Mendez, *Crawford v. Washington: A Critique*, 57 STAN. L. REV. 569, 572-78 (2005); Thomas J. Reed, *Crawford v. Washington and the Irretrievable Breakdown of a Union: Separating the Confrontation Clause from the Hearsay Rule*, 56 S.C. L. REV. 185, 199-211 (2004).

of trustworthiness.”<sup>131</sup> Under *Roberts*, “upon a mere finding of reliability” by the court, the State could prove its case using untested *ex parte* statements.<sup>132</sup> Under *Crawford*, the first step in assessing whether the Constitution permits the admission of an out-of-court statement is determining whether the statement is testimonial.<sup>133</sup> If the statement is testimonial, “the Sixth Amendment demands what the common law required.”<sup>134</sup> Either the declarant must testify (in which case the Confrontation Clause places no limit upon the introduction of the declarant’s out-of-court statements), or the prosecution must prove that the witness is unavailable and that the defendant has had a prior opportunity for cross-examination.<sup>135</sup>

The *Crawford* Court left “for another day [the] effort to spell out a comprehensive definition of ‘testimonial.’”<sup>136</sup> However, the Court shed significant light on the matter by identifying the category of witnesses whose testimony must be cross-examined. First, the Court defined a “witness” as “one who bears testimony” against an accused.<sup>137</sup>

The Court then defined the requisite “testimony” as a “solemn declaration or affirmation made for the purpose of establishing or proving some fact.”<sup>138</sup> By way of example, the Court stated that an out-of-court statement is testimonial if the declarant reasonably expected that the statement would be used prosecutorially.<sup>139</sup>

131. *Crawford*, 541 U.S. at 60. The *Crawford* Court criticized the *Roberts* test as both “too broad” and “too narrow” inasmuch as it applied “the same mode of analysis whether or not the hearsay consists of *ex parte* testimony.” *Id.*

132. *Id.* In this regard, the critique of *Roberts* reflects the Court’s ongoing preoccupation with the proper allocation of fact-finding responsibilities. The tenor of the *Crawford* opinion suggests that the *Roberts* rule misallocated responsibility for the assessment of reliability. Under *Roberts* the trial court’s judicial fact-finding (that the statement was trustworthy or reliable) preempted the jury’s power to assess the reliability of evidence. 448 U.S. at 66. While most jury instructions advise the jury that it can disregard any evidence it deems incredible, the absence of confrontation makes this power perfunctory rather than meaningful.

133. *Crawford*, 541 U.S. at 61. The inquiry is framed differently if a court considers the admissibility of a laboratory report when the report’s author testifies. Since *Crawford* places no limits on the use of an out-of-court statement made by a testifying declarant, state hearsay laws would be the starting point for an admissibility inquiry. For an analysis of post-*Crawford* admissibility of laboratory reports, see Giannelli, *Admissibility of Laboratory Reports: The Right of Confrontation Post-Crawford*, *supra* note 20, at 26.

134. *Crawford*, 541 U.S. at 68.

135. *Id.*

136. *Id.*

137. *Id.* at 51 (citing NOAH WEBSTER, AN AMERICAN DICTIONARY OF THE ENGLISH LANGUAGE (1828)).

138. *Id.* (citing WEBSTER, *supra* note 137).

139. *Id.* (“An accuser who makes a formal statement to a government officer bears testimony in a sense that a person who makes a casual remark to an acquaintance does not.”).

The Court provided a non-exhaustive list of testimonial statements.<sup>140</sup> Among those statements that are clearly testimonial are “extrajudicial statements” that are the “functional equivalent” of in-court testimony.<sup>141</sup> These include “formalized testimonial materials” such as affidavits, depositions, grand jury statements, preliminary hearing testimony, confessions, custodial examinations, and prior testimony.<sup>142</sup> “[S]imilar pretrial statements that declarant would reasonably expect to be used prosecutorially” are testimonial, as are statements “made under circumstances which would lead an objective witness reasonably to believe that the statement would be available for use at a later trial.”<sup>143</sup>

In this functional analysis of the confrontation guarantee, it is difficult to imagine statements that are more paradigmatically testimonial than forensic certifications by police laboratory workers.<sup>144</sup> Forensic affidavits are “made under circumstances which would lead an objective witness reasonably to believe that the statement would be available for use at a later trial.”<sup>145</sup> Any objective (or marginally competent) crime lab employee knows that the results of forensic analysis will be available for use at a later trial. Indeed, most of the forensic *ipse dixit* statutes are specifically addressed to the criminal prosecutions.<sup>146</sup>

Crime laboratory reports are out-of-court statements designed to prove a fact (often an essential element) in a criminal case. Law enforcement gathers, tests, and reports on the sample, solely with the intent of using the test results in a criminal prosecution. Thus, the forensic *ipse dixit* reports exemplify the accusatory statements targeted by the Confrontation Clause, and admission of the reports is the admission of testimony produced by “government officers. . . with an eye toward trial.”<sup>147</sup> Presented at trial, these police crime laboratory reports have “unique potential for prosecutorial abuse—a

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140. *Id.* at 51-52.

141. *Id.* at 51.

142. *Id.* at 51-52.

143. *Id.*

144. As discussed *infra* in the text accompanying notes 169-76, this is true whether the certificate in question proves only the contents of the report, or also the chain of custody for the tested substance.

145. *Crawford*, 541 U.S. at 52.

146. *See, e.g.*, LA. REV. STAT. ANN. §§ 15:499-501 (1992) (explaining that Louisiana’s forensic *ipse dixit* statute is designed “to provide for proof of certain matters in criminal cases . . . by certif[y]ing . . . result[s] of [a] laboratory examination of physical evidence”).

147. *Crawford*, 541 U.S. at 56-57 n.7.

fact borne out time and again throughout a history with which the Framers were keenly familiar.”<sup>148</sup>

Under the *Roberts* and *Crawford* tests, however, courts have strained the bounds of logic in order to hold that admission of an ex parte forensic report does not violate the Confrontation Clause. The Supreme Court has long required that the government prove the declarant’s unavailability as a prerequisite to the ex parte admission of certain out-of-court statements. Yet, there is a long-standing line of cases that illustrates the oft-employed judicial fiction that the unavailability requirement simply does not apply to state crime laboratory workers.<sup>149</sup> The assertion seems to be that the actual examiner would recall little about the particular chemical test at issue.<sup>150</sup> Accordingly, the argument goes, cross-examination of the actual examiner is not necessary.<sup>151</sup> This argument is bolstered by a volume-equals-accuracy argument: because the examiners perform so many tests, those tests are highly reliable.<sup>152</sup>

Nor can there be any meaningful claim that the forensic examiners are, in fact, unilaterally unavailable. The forensic witnesses are available; they simply do not want to travel to court, wait in court, testify in court, or return from court if the parties announce a last-minute stipulation. State budget crises and prospective laboratory efficiencies do not make the examiner unavailable. Moreover, while crowded court dockets move more smoothly when fewer witnesses testify, court dockets do not make witnesses unavailable. The “increased funding of the State Crime Lab” can enable laboratory employees “to fulfill their laboratorial duties as well as their duty to provide in-court expert testimony.”<sup>153</sup> The claim of unavailability is nothing more than a fraud.

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148. *Id.* As was discussed in Part III, it is unnecessary to speculate about the “potential for abuse” in government-initiated forensic evidence. There is nearly universal agreement that unscrutinized forensic testing facilitates poor science, faulty laboratory protocols, operator error, and outright falsification of evidence.

149. *See, e.g.,* Manocchio v. Moran, 919 F.2d 770, 775 (1st Cir. 1990) (arguing that the medical examiner is independently reliable and therefore does not need to testify).

150. *See, e.g., id.* (proposing that in-court testimony is not likely to be based on independent recollection, but rather on the report already submitted into evidence).

151. *See, e.g., id.* at 775-76 (holding that the Confrontation Clause was not violated when the court admitted an autopsy report without any showing that the examiner was unavailable).

152. *See, e.g., id.* at 775 (holding that an autopsy report is routine and standardized because of the high-volume of autopsies performed); Reardon v. Manson, 806 F.2d 39, 41 (2d Cir. 1986) (arguing that the high volume of analyses performed by laboratory mitigates in favor of ignoring the unavailability requirement).

153. *Miller v. State*, 472 S.E.2d 74, 79 (Ga. 1996) (“[I]ncreased work demands do not make the expert analysts ‘unavailable’ to testify.”).

Setting aside the unavailability issue, pre- and post-*Crawford*, courts have used specious arguments to justify the forensic *ipse dixit* procedure. Prior to *Crawford*, courts articulated four basic justifications for permitting an ex parte accusation via the State's forensic report: the reliability of the report, the report's identity as a business record; the "legitimate" state interest in conserving laboratory resources; and the defendant's access to the forensic witness via his compulsory process right.<sup>154</sup> To the extent that, even after *Crawford*, courts still cling to these rationales, I discuss their post-*Crawford* use and viability.

### A. Reliability Justifications

Confrontation is one way our system poses for the jury the question of whether a particular witness's testimony is, in fact, reliable. While reliability is the goal of the Confrontation Clause, that goal is achieved when the evidence in question is tested "in the crucible of cross-examination."<sup>155</sup> "The Clause thus reflects a judgment, not only about the desirability of reliable evidence . . . but about how reliability can best be determined."<sup>156</sup> Under the *Roberts* test, the out-of-court statements of an unavailable witness could be offered for their truth, if the court found that the evidence had "particularized guarantees of trustworthiness" or reliability.<sup>157</sup>

Justifying the admission of "untested testimonial statements" by their purported trustworthiness and reliability adds insult to constitutional injury. Yet, both before and after *Crawford*, courts have held that forensic affidavits are reliable *because* they are created by law enforcement employees in laboratories whose primary function is to assist the prosecution in proving forensic 'facts' at trial.<sup>158</sup> As

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154. Of course, if one concludes that the forensic reports are not testimonial, at most their admission is limited by the *Roberts* rule; or, it may be that the Confrontation Clause does not apply at all to those statements.

155. *Crawford v. Washington*, 541 U.S. 36, 61 (2004).

156. *Id.*

157. *Ohio v. Roberts*, 448 U.S. 56, 66 (1990).

158. *See, e.g., United States v. Curtis*, 755 A.2d 1011, 1016 (D.C. Cir. 2000) ("[Drug Enforcement Agency] chemists who conduct such analyses do so routinely and generally do not have an interest in the outcome of trials. In fact, as employees and scientists, they are under a duty to make accurate reports. It is difficult to perceive any motive or opportunity for the chemists to falsify." (quoting *Howard v. United States*, 473 A.2d 835, 839-40 (D.C. Cir. 1984)) (internal citations omitted)); *Sherman v. Scott*, 62 F.3d 136, 142 (5th Cir. 1995) (holding that the "cross-examination of the chemists who prepared report would have been of little use"); *Minner v. Kerby*, 30 F.3d 1311, 1314-15 (10th Cir. 1994) (stating that laboratory notes are trustworthy because, *inter alia*, they "concern mechanically objective tests," "were taken contemporaneously with the performance of the tests," and the chemist appears to have followed standard laboratory

Justice Scalia explained in *Crawford*, this inverts the Confrontation Clause's inquiry: "the very factors that *make* the statements testimonial," thereby requiring confrontation, are used instead to conclude that the statements are reliable.<sup>159</sup>

Forensic certifications offer "nothing more than the vague assurances of the prosecuting authority's own employee that proper testing was done and that the employee is qualified to do the testing."<sup>160</sup> As discussed in Part III, *supra*, there is no reason to presume that scientific testing, crime laboratories, technical equipment, or forensic operators are trustworthy. Yet, courts have routinely held that the reports are inherently trustworthy.

Some courts have admitted hearsay forensic affidavits simply because the declarant has certified, under oath, that the report reflects the declarant's forensic conclusions. A declarant's oath, however, is not proof of the declarant's honesty or reliability.<sup>161</sup> Moreover, as demonstrated by Justice Scalia's exhaustive review of the history of the Confrontation Clause, the Framers intended to prevent the oath from being used as a proxy for confrontation.<sup>162</sup> In short, "[d]ispensing with confrontation because testimony is obviously reliable is akin to dispensing with jury trial because a defendant is obviously guilty."<sup>163</sup> Similarly, dispensing with confrontation because the testimony was produced by a state's examiner is akin to

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procedures); *Brown v. United States*, 627 A.2d 499, 507 (D.C. Cir.1993) (finding state-generated laboratory report "inherently reliable"); *United States v. Baker*, 855 F.2d 1353, 1360 (8th Cir. 1988) (holding that the business records exception to the hearsay rule is "firmly rooted"); *Reardon v. Manson*, 806 F.2d 39, 41 (2d Cir. 1986) (holding that, because chemists analyzed thousands of compounds each year, the resultant laboratory reports are sufficiently reliable to obviate the need for cross-examination); *see also* *Howard v. United States*, 473 A.2d 835, 839 (D.C. Cir. 1984) ("[T]he fact sought to be established through admission of the DEA [chemist] reports . . . is determined by a well recognized chemical procedure. Thus, the reports contained objective facts rather than expressions of opinion."); *State v. Hudson*, No. 79010, 2002 WL 472304, at \*3 (Ohio Ct. App. Mar. 28, 2002) (holding that "the trustworthiness of such analyses has long been recognized by the courts"); *State v. Hancock*, 825 P.2d 648, 651 (Or. Ct. App. 1992) (referring to legislative findings that "representatives from the Oregon State Police and the Oregon District Attorney's Association testified that they could not recall any cases of drugs being misidentified by laboratory analysis," and that "the accuracy of the chemical analysis of an alleged controlled substance by the laboratory is almost never challenged").

159. *Crawford*, 541 U.S. at 65.

160. *People v. McClanahan*, 729 N.E.2d 470, 475 (Ill. 2000). The report does not contain, as the court pointed out, "any information as to how the tests are conducted, what the accepted scientific procedures are, and what qualifications and training crime lab employees must have." *Id.*

161. *See Crawford*, 541 U.S. at 52 (The "absence of oath [is] not dispositive.").

162. *See id.* at 43-53 (reviewing the origins of the Confrontation Clause and the evils it was designed to guard against).

163. *Id.* at 62.

dispensing with the trial because the State's accusation proves the offense.

*B. The Business Records Rationale*

One common judicial sleight of hand is to treat crime laboratory reports as business or public records.<sup>164</sup> Prior to *Crawford*, many courts used the *Roberts* test to conclude first that police laboratory reports were business or public records, and second that they were therefore admissible, without confrontation, under *Roberts's* "well-rooted hearsay exception" test.<sup>165</sup>

After *Crawford*, courts have come to the same erroneous conclusion using a slightly different analysis. First, they use the extant hearsay rules to define the crime laboratory reports as business or public records; second, they rely on *Crawford* to argue that business and public records are never testimonial. Accordingly, these courts have held that the crime laboratory reports are nontestimonial and therefore admissible without confrontation. Dictum in the *Crawford* opinion provides the initial ammunition for this assault on a defendant's right to confront the forensic declarant. Justice Scalia's observation that business records are "by their nature not testimonial" has encouraged courts to reason from the ends desired (proof by affidavit) to the justification (the nontestimonial nature of business records). This self-serving analysis misapprehends both *Crawford's* rule and its reasoning.

As a preliminary matter, state crime laboratory reports are neither business nor public records as those terms are used in evidentiary codes. The business records exception is generally

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164. See, e.g., *Howard v. United States*, 473 A.2d 835, 838 (D.C. Cir. 1984) (finding that the forensic *ipse dixit* statute is "supported by the 'business records' exception to the hearsay rule" (citing COUNCIL OF THE DISTRICT OF COLUMBIA, REPORT OF THE COMMITTEE ON THE JUDICIARY, DISTRICT OF COLUMBIA UNIFORM CONTROLLED SUBSTANCES ACT OF 1981 (April 8, 1981))); *Johnson v. Renico*, 314 F.2d 700, 707 (E.D. Mich. 2004) (stating, in dicta, that booking statements are business records and therefore not testimonial); *Smith v. Alabama*, 898 So.2d 907, 916 (Ala. Crim. App. 2004) (reaching the conclusion that autopsy reports are business records and therefore not testimonial). Some states, such as Louisiana, exclude law enforcement generated records from the business records exception. See, e.g., LA. CODE EVID. ANN. ART. 803 (2006).

165. *Ohio v. Roberts*, 448 U.S. 56, 57 (1990). See, e.g., *Murray City v. Hall*, 663 P.2d 1314, 1319 (Utah 1983) (holding that a statute authorizing the introduction of breathalyzer certificate, in lieu of live testimony, to prove breathalyzer results "is a valid exception to the hearsay rule and does not deny the appellant his right of confrontation"). The *Murray* opinion also suggests some reliance on a public interest balancing test in which legitimate governmental interests justified the intrusion upon the confrontation right. *Id.* at 21-22; see *infra* note 176 and accompanying text.

assumed to exclude documents prepared in anticipation of litigation.<sup>166</sup> Similarly, the typical public records hearsay rule excludes any record offered against the accused in a criminal case.<sup>167</sup> Business and public records are presumed to be reliable in part because they are generated routinely, by record keepers without any “axe to grind.” In contrast, records prepared in anticipation of litigation are subject to the types of abuses inherent in any testimony that is generated, *ex parte*, in advance of trial. In contrast, crime laboratory reports are prepared as accusatory documents to be used in prosecuting a particular defendant.<sup>168</sup>

Moreover, even if these laboratory reports could be properly categorized as business or public records, they are nevertheless testimonial documents. *Crawford* untethered the Confrontation Clause from the rules of evidence. Henceforth, we no longer consider hearsay rules to determine whether forensic certificates are business reports. Rather, we ask whether they are *testimonial* and therefore subject to confrontation.

Thus, what is “testimonial” will often depend upon its relevance in a particular case.<sup>169</sup> The mere fortuity that these testimonial documents can be squeezed into some definition of a public or business record does not negate the defendant’s constitutional right to confrontation if the statement is used to prove an essential element of the crime.

Yet an insistence upon ignoring context is precisely how some courts cheat *Crawford*’s constitutional command. They simply categorize the crime laboratory reports as business or public records and then unilaterally proclaim that they are not testimonial.<sup>170</sup>

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166. MCCORMICK ON EVIDENCE § 289 (John W. Strong et al. eds., 4th ed. 1992); *see also* *Palmer v. Hoffman*, 318 U.S. 109, 113-15 (1943) (finding that a railroad accident report was not a business record because its primary purpose was in litigation); *People v. McClanahan*, 729 N.E.2d 470, 473 (Ill. 2000) (citing 725 ILL. COMP. STAT. 5/115-15(c) (1998)) (holding a state statute that admits laboratory reports as evidence unconstitutional without particularized guarantees of trustworthiness); *People v. Smith*, 565 N.E.2d 900, 912-14 (Ill. 1990) (holding a prison incident report inadmissible under the business records exception to the hearsay rule). One might distinguish between mechanical maintenance records confirming routine equipment tune-ups and particular tests run on particular pieces of evidence connected with particular crimes.

167. MCCORMICK ON EVIDENCE, *supra* note 166, § 296.

168. *Miller v. Georgia*, 472 S.E.2d 74, 78 (Ga. 1996) (citing *Kesler v. State*, 291 S.E.2d 497 (Ga. 1982)) (holding that the conclusory nature of a laboratory report makes it inadmissible as a business record).

169. Thomas J. Reed, *Crawford v. Washington and the Irretrievable Breakdown of a Union: Separating the Confrontation Clause from the Hearsay Rule*, 56 S.C. L. REV. 185, 225 (2004).

170. Of course, some judicial discomfort in separating the confrontation analysis from the hearsay rules is understandable. For many years, the Supreme Court held that “statements squarely within established hearsay exceptions possess ‘the imprimatur of judicial and

The misapprehension about the testimonial nature of the crime laboratory reports seems to be this: because the affidavits are “provided according to scientific procedures and analysis,” they are not testimonial.<sup>171</sup> However, neither *Crawford* nor the Confrontation Clause privileges scientific evidence over other categories.<sup>172</sup> Rather, the Confrontation Clause considers only whether the statement is testimonial: whether it is an out-of-court declaration that is offered as a substitute for in-court proof, and that “identifies the perpetrator of the offense, or directly proves an element of any offense charged in the indictment.”<sup>173</sup> A state crime laboratory report is clearly intended to substitute for in-court proof of an essential element of the offense. Moreover, these reports are generated under circumstances that would “lead an objective witness reasonably to believe that the statement would be available for use at a later trial.”<sup>174</sup> Indeed, in

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legislative experience’ and that fact [weighed] heavily in [judicial] assessment of their reliability for constitutional purposes.” *Lee v. Illinois*, 476 U.S. 530, 551-52 (1986) (Blackmun, J., dissenting) (internal citations omitted).

171. See, e.g., Appellant’s Brief at 3, *State v. Cunningham*, 903 So.2d 1110 (La. 2005) (No. 04-KA-2200).

172. See *White v. Illinois*, 502 U.S. 346, 363 (1992) (Thomas J., concurring in part and dissenting in part) (“[It does not] seem likely that the drafters of the Sixth Amendment intended to permit a defendant to be tried on the basis of *ex parte* affidavits found to be reliable.”).

173. Reed, *supra* note 169, at 224.

174. Ross Andrew Oliver, *Testimonial Hearsay as the Basis for Expert Opinion: The Intersection of the Confrontation Clause and Federal Rule of Evidence 703 after Crawford v. Washington*, 55 HASTINGS L.J. 1539, 1545 (2004). The out-of-court declarant’s assertion about testing results should be distinguished from in-court testimony of an expert that she relied upon out-of-court statements to reach her expert conclusion. The Confrontation Clause is generally satisfied by an opportunity to cross-examine the testifying expert; “the expert’s opinion—not the facts that the expert considered—is in evidence, and the defendant has a full opportunity to test the soundness of that evidence by cross-examining the expert.” *Id.* at 1555; accord *Delaware v. Fensterer*, 474 U.S. 15, 22 (1985) (“[T]he Confrontation Clause is generally satisfied when the defense is given a full and fair opportunity to probe and expose . . . infirmities through cross-examination, thereby calling to the attention of the factfinder the reasons for giving scant weight to the witness’ testimony.”). For example, a government psychiatrist reviews prior out-of-court statements, made by a number of declarants, in order to assess whether the defendant was insane at the time of the crime. That psychiatrist then prepares a written psychiatric diagnosis and evaluation. The psychiatrist’s report and evaluation is testimonial because it was made with an eye toward trial and with the intention of proving a particular fact (i.e., the defendant’s psychiatric condition). However, the underlying records upon which she based her opinion are probably not testimonial. See, e.g., *People v. Goldstein*, 786 N.Y.S.2d 428, 432 (N.Y. App. Div. 2004) (holding that a psychiatrist’s use of background records to draw conclusions is not testimonial). See generally, Oliver, *supra*, at 1550 (noting that Federal Rule of Evidence 703 allows “an expert to base his opinion on facts that are inadmissible in evidence, if they are of a type reasonably relied upon by experts”). The applicability of *Crawford* to these expert-foundation questions may turn on whether the out-of-court statement, on which the expert predicates her opinion, was made with the expectation that it might be used in litigation. In *United States v. Stone*, 222 F.R.D. 334 (E.D. Tenn. 2004), a civil IRS agent conducted tax audit interviews while she “served in [an] assisting or cooperating capacity” to criminal investigators. *Id.* at 339. At a subsequent criminal tax trial, she testified as a government expert and relied

general the forensic *ipse dixit* reports are “prepared solely for the prosecution’s use at trial.”<sup>175</sup> There can be no question that forensic laboratory reports are testimonial.<sup>176</sup>

### C. Legitimate State Interests Rationale

Some courts conduct a balancing test, weighing the expense to the public and the inconvenience to the declarant, against the defendant’s interests in cross-examination. The justification for these balancing tests seems to be a direct or indirect reliance on the Court’s compromise ruling in *Maryland v. Craig*,<sup>177</sup> which found that a legitimate public interest could justify denying the defendant an opportunity for face-to-face confrontation. As explained below, however, the narrow “public interest” exception carved out in *Craig* is wholly inapplicable to the forensic *ipse dixit* statutes.<sup>178</sup>

In *Craig*, the Court considered the constitutionality of a Maryland statute that authorized the trial court, in child abuse cases, to take the testimony of the alleged victim outside the presence of the defendant, via one-way closed circuit television.<sup>179</sup> The defendant, Sandra Craig, argued that the absence of face-to-face confrontation violated her Sixth Amendment rights.<sup>180</sup> A divided Supreme Court granted the request for certiorari and established a detailed test for

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upon the audit interviews to reach her conclusions. *Id.* at 336. The defense argued that the audit interviews were testimonial and that the admission of the interviewees’ out-of-court statements violated the Confrontation Clause. *Id.* The trial court disagreed. *Id.* at 339. I submit that the *Stone* court erred; the interviews should have been treated as testimonial statements since they were clearly conducted with the expectation of prosecutorial use. For a collection of cases addressing this issue, see Oliver, *supra*, at 1555-57 nn.101-12 and accompanying text.

175. *City of Las Vegas v. Walsh*, 91 P.3d 591, 595 (Nev. 2004).

176. Post-*Crawford*, some courts concede the testimonial nature of state crime laboratory reports. See, e.g., *Walsh*, 91 P.3d at 595 (finding that blood alcohol testing documents are testimonial because they are produced specifically for use in a criminal case); *People v. Rogers*, 780 N.Y.S.2d 383, 397 (N.Y. App. Div. 2004) (holding that a forensic report is testimonial where it is “initiated by the prosecution and generated by the desire to discover evidence against defendant”); see also Richard D. Friedman, *Adjusting to Crawford: High Court Decision Restores Confrontation Clause Protection*, CRIM. JUST., Summer 2004, at 4, 11 (“In most circumstances, the lab report should probably be considered testimonial. Therefore, the lab technician who made the report should testify at trial if available to do so.”); John F. Yetter, *Wrestling with Crawford v. Washington and the New Constitutional Law of Confrontation*, FLA. B.J., Oct. 2004, at 26, 34 n.22 (“After *Crawford*, the safe prosecutorial practice is to call the [laboratory technician] as a witness. [Laboratory] affidavits look to be within the core concern of *Crawford*.”).

176. *Maryland v. Craig*, 497 U.S. 836 (1990).

178. It is unclear whether *Maryland v. Craig* survives *Crawford*; if it does, it is not clear whether it would apply to testimonial, as well as nontestimonial, statements.

179. *Craig*, 497 U.S. at 842.

180. *Id.*

determining when the Confrontation Clause authorizes prosecution witnesses to testify outside the presence of the defendant.<sup>181</sup>

The *Craig* majority refused to recognize an absolute right to face-to-face confrontation.<sup>182</sup> Instead, five Justices held that the Confrontation Clause expressed a mere “preference” for face-to-face confrontation, “a preference that ‘must occasionally give way to considerations of public policy and the necessities of the case.’”<sup>183</sup> The *Craig* Court concluded that “if the State makes an adequate showing of necessity, the state interest in protecting child witnesses from the trauma of testifying in a child abuse case is sufficiently important” to justify a procedure that avoids face-to-face confrontation between accuser and accused.<sup>184</sup>

The *Craig* Court required a “case-specific” finding of necessity.<sup>185</sup> Before eliminating the traditional face-to-face confrontation, the trial court must find (1) that the procedure is “necessary to protect the welfare of the particular child witness who seeks to testify;”<sup>186</sup> (2) that the child witness’s trauma would stem from the defendant’s presence, and not simply from the courtroom setting;<sup>187</sup> and (3) that the emotional distress that the child would suffer in a face-to-face confrontation is more than “mere nervousness or excitement or some reluctance to testify.”<sup>188</sup>

Justices Scalia, Brennan, Marshall, and Stevens dissented, arguing that the majority had utterly overlooked the purposive nature of the Confrontation Clause.<sup>189</sup> In a dissent that foreshadowed his *Crawford* opinion, Justice Scalia argued that face-to-face confrontation is “not a preference ‘reflected’ by the Confrontation Clause; it is a constitutional right unqualifiedly guaranteed.”<sup>190</sup> Moreover, he asserted that the discomfort or distress associated with face-to-face confrontation is precisely the reason that the Constitution requires witness confrontation.<sup>191</sup> Face-to-face confrontation promotes reliable trial outcomes by “helping the jury to unmask false

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181. *Id.* at 843-50. Note that *Craig* clarifies the Court’s earlier opinion in *Coy v. Iowa*. See *Coy*, 487 U.S. 1012, 1020-22 (1988) (holding that the use of a screen to shield a child witness from the defendant violates the Confrontation Clause).

182. *Craig*, 497 U.S. at 844.

183. *Id.* at 849 (internal citations omitted).

184. *Id.* at 855.

185. *Id.*

186. *Id.*

187. *Id.* at 856.

188. *Id.* (quoting *Wildermuth v. State*, 530 A.2d 275, 289 (Md. 1987)).

189. *Id.* at 860-70 (Scalia, J., dissenting).

190. *Id.* at 863 (Scalia, J., dissenting).

191. *Id.* at 866 (Scalia, J., dissenting).

accusers.”<sup>192</sup> First, face-to-face confrontation inhibits false statements, as it is “always more difficult to tell a lie about a person ‘to his face’ than ‘behind his back.’”<sup>193</sup> Second, a lie told to the defendant’s face “will often be told less convincingly” than it would have been outside the defendant’s presence.<sup>194</sup> Finally, the demeanor of a lying witness who is forced to confront the accused may demonstrate the witness’s cupidity.<sup>195</sup>

Courts often invoke the “legitimate public interest” analysis as a way of justifying the otherwise impermissible intrusion upon the Confrontation Clause.<sup>196</sup> However, *Craig* does not apply to the forensic certificate statutes.

The *Craig* opinion considered the extent to which the Constitution permits in-court procedures that vary from the traditional face-to-face confrontation imagined by the Framers.<sup>197</sup> The forensic *ipse dixit* statutes require that courts consider “what requirements the Confrontation Clause imposes as a predicate for the introduction of out-of-court declarations.”<sup>198</sup> Thus, *Craig* does not authorize a general public interest exception to the broad right of confrontation. Rather, it authorizes the trial court to restrict the manner in which the cross-examination occurs,<sup>199</sup> replacing the face-to-face confrontation with confrontation via closed-circuit televisions. In contrast, the forensic *ipse dixit* statutes eliminate the right to cross-examination which would otherwise devolve upon the defendant as soon as the State attempted to use the declarant’s out-of-court statement.<sup>200</sup>

*Craig* cannot be read to carve out a general public interest exception to any aspect of the Confrontation Clause. Rather, *Craig*’s acknowledgement of a narrow exception to the confrontation right rule

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192. Carol A. Chase, *The Five Faces of the Confrontation Clause*, 40 HOUS. L. REV. 1003, 1012 (2003).

193. *Coy v. Iowa*, 487 U.S. 1012, 1019 (1988).

194. *Id.*

195. *Id.* at 1020. For example, the witness may avoid looking at the defendant or may display, in his demeanor, a discomfort associated with the making of untrue statements.

196. *See, e.g., Chambers v. Mississippi*, 410 U.S. 284, 295 (1973) (“Of course, the right to confront and to cross-examine is not absolute and may, in appropriate cases, bow to accommodate other legitimate interests in the criminal trial process.”).

197. *Maryland v. Craig*, 497 U.S. 836, 849-50 (1990); *see also White v. Illinois*, 502 U.S. 346, 358 (1992) (“*Craig* involved only the question of what *in-court* procedures are constitutionally required to guarantee a defendant’s confrontation right once a witness is testifying.”).

198. *White*, 502 U.S. at 358.

199. *Craig*, 497 U.S. at 849.

200. In view of Justice Scalia’s strong belief in the importance of face-to-face confrontation, it seems unlikely that the Court would permit forensic cross-examination via closed-circuit television.

was based on fact-specific harms that might devolve upon the particular victim in an alleged child abuse case. Thus, *Craig* requires a case-by-case assessment both of the legitimate public interest at stake and of the particular harm that would follow from cross-examination. In contrast, the forensic *ipse dixit* statutes present public interests that are neither fact-specific nor compelling. They do not address the permanent psychological harm that might befall a child victim; rather, they address the general public interest in conserving funds.<sup>201</sup> The statutes are blanket, legislative assessments that the public interest is best served by reducing the costs of criminal prosecutions.

The public interest rationale is often accompanied by an expression of judicial confidence in the defendant's ability to vindicate his rights through the Compulsory Process Clause. According to this rationale, compulsory process offers the defendant an "alternative means" to cross-examine the witness,<sup>202</sup> thus curing any violation of the Confrontation Clause. As discussed below, this rationale is unsound.

#### *D. Compulsory Process Rationale*

The Compulsory Process Clause is a constitutional entitlement, not a safety valve that legitimizes otherwise unconstitutional violations of the Confrontation Clause.<sup>203</sup> Yet, some courts have claimed that the compulsory process power moots any confrontation violation created by the forensic certificate statutes.<sup>204</sup> According to

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201. *State v. Crow*, 974 P.2d 100, 111 (Kan. 1999) ("[T]he Kansas legislature determined the public has a significant interest in avoiding the unnecessary expense of insuring the presence of laboratory technicians at trials where the content of their testimony will not be challenged by defendants.").

202. *Murray City v. Hall*, 663 P.2d 1314, 1321-22 (Utah 1983); *see also Crampton v. State*, 525 A.2d 1087, 1089 (Md. App. 1987) (stating that the notice and demand statute being challenged, which was characterized as a business records exception, "diminishes" the confrontation right but "does not completely abolish that right").

203. *U.S. v. Nixon*, 418 U.S. 683, 709 (1974); *Washington v. Texas*, 388 U.S. 14, 19 (1967); *Chambers v. Mississippi*, 410 U.S. 284, 302 (1973).

204. *See, e.g., Murray City*, 663 P.2d at 1322 (holding that a statute relieving the state of the burden of calling, as a witness in every DUI case, the public officer responsible for testing the accuracy of the breathalyzer created "a very limited intrusion upon an accused's right of confrontation"); *Manocchio v. Moran*, 919 F.2d 770, 775 (1st Cir. 1990) (holding that the introduction into evidence of an autopsy report, without live testimony, did not violate the defendant's right to confrontation because of the availability of compulsory process); *Reardon v. Manson*, 806 F.2d 39, 41-42 (2d Cir. 1986) (holding that since there would have been little utility in requiring the State to produce both the assisting chemists and the lead chemist, the defendant's ability to subpoena the assisting chemists adequately protected the defendant's right to confrontation).

this argument, the defendant can subpoena the declarant to appear at trial and can examine the declarant as a hostile witness on the defendant's case-in-chief.<sup>205</sup>

If this is true there is no reason to limit the compulsory-process-as-confrontation-cure to forensic proof. Rather, taken to its logical extension, this argument means that the State could introduce all of its trial by affidavit, since the defendant retains the power to subpoena the witnesses to court.<sup>206</sup> This result would be patently absurd. The "principal evil at which the [Confrontation] Clause was directed was . . . the civil-law mode of criminal procedure, particularly the . . . use of *ex parte* examinations as evidence against the accused."<sup>207</sup> The Compulsory Process Clause does not make the Confrontation Clause mere surplusage. Rather, the Confrontation Clause and the Compulsory Process Clause serve two different and unique procedural functions.<sup>208</sup>

A defendant's right to confront the State's witnesses is "designed to restrain the prosecution by regulating the procedures by which it presents its case against the accused."<sup>209</sup> This confrontation right applies "in every case, whether or not the defendant seeks to rebut the case against him or to present a case of his own."<sup>210</sup> In contrast, the right to compulsory process "comes into play at the close of the prosecution's case" and "operates exclusively at the defendant's initiative."<sup>211</sup>

Some forensic *ipse dixit* statutes explicitly "grant" the defendant a right to compulsory process as a "cure" for any confrontation violation that arises upon admission of the certificate without live testimony.<sup>212</sup> Some courts have agreed.<sup>213</sup> The very

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205. *But see* *People v. McClanahan*, 729 N.E.2d 470, 477 (Ill. 2000) (holding that securing the author of a lab report sought to be introduced into evidence is a "mandatory constitutional obligation of the prosecuting authority"). The Illinois Supreme Court noted that the grammatical construction of the Sixth Amendment does not say "that the accused has a right to confront the witnesses against him." *Id.* Rather, it says that "the accused has a right *to be confronted* with witnesses against him." *Id.* (citing U.S. CONST. amend. VI; ILL. CONST. of 1970, art. I, § 8).

206. *McClanahan*, 729 N.E.2d at 477 (pointing out that "[t]rial by affidavit is the primary evil that the confrontation clause was designed to prevent").

207. *Crawford v. Washington*, 541 U.S. 36, 36 (2004).

208. *See generally* Janet C. Hoeffel, *The Sixth Amendment's Lost Clause: Unearthing Compulsory Process*, 2002 WIS. L. REV. 1275 (2002) (discussing the history and purpose of the Compulsory Process Clause).

209. *Taylor v. Illinois*, 484 U.S. 400, 410 n.14 (1988) (quoting with approval Peter Westen, *The Compulsory Process Clause*, 73 MICH. L. REV. 71, 74 (1974)).

210. Westen, *supra* note 209, at 74.

211. *Id.*

212. Since the Compulsory Process Clause is part of the federal Constitution, a statutory right to compulsory process is hardly a boon.

phrasing of these statutes reflects how deeply legislators have bought into the notion that compulsory process and confrontation are but two sides of the same coin.

Compulsory process, however, is not an antidote to the confrontation violation. As the Supreme Court has explained, the compulsory process right “is dependent entirely upon the defendant’s initiative.”<sup>214</sup> In contrast, most other “Sixth Amendment rights arise automatically on the initiation of the adversary process and no action by the defendant is necessary to make them active in his or her case.”<sup>215</sup> When a defendant invokes the Compulsory Process Clause, he gives up his right to rely on the government’s failure of proof. Instead, he must present a case to the jury, using a hostile State witness, who knows that she has been called to testify so that the defense can impeach her.<sup>216</sup> In short, even if the Constitution permitted legislatures to ration constitutional entitlements as an “either or” proposition, compulsory process is not an adequate substitute for confrontation.<sup>217</sup>

### *E. The Demand-Waiver Feint*

In *Crawford*’s wake, we can anticipate that the confrontation debate will turn to the validity of procedural mechanisms that decrease the likelihood that a defendant will actually confront the forensic examiner. Chief among these mechanisms is the demand-waiver doctrine aggressively enforced in the forensic *ipse dixit* statutes.<sup>218</sup>

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213. *State v. Pearson*, 633 N.W.2d 81, 84-85 (Minn. App. 2001) (holding that a state statute which allowed a blood analysis report to be admitted in evidence without live witness by the person who administered the blood test did not violate the state constitution because “a defendant in a criminal case may challenge the accuracy or reliability of the test” through a subpoena).

214. *Taylor*, 484 U.S. at 410.

215. *Id.*

216. *See State v. Clark*, 964 P.2d 766, 772-73 (Mont. 1998) (pointing out that a state *ipse dixit* statute “effectively required [the defendant] to subpoena and produce the State’s expert in order to rightfully take advantage of the protection afforded him under the Confrontation Clause”).

217. *See, e.g., Wigglesworth v. Oregon*, 49 F.3d 578, 581 (9th Cir. 1995) (concluding that Oregon’s forensic *ipse dixit* statute was unconstitutional, even though the defendant had a compulsory process right to subpoena the state crime laboratory worker).

218. *Johnson v. State*, 792 S.W.2d 863, 867 (Ark. 1990) (concluding that the defendant’s failure to notify “the State to bring the witness to trial” constitutes waiver of the right to confront that witness); *State v. Crow*, 974 P.2d 100, 102-03 (Kan. 1999) (holding a demand-waiver statute constitutional because the “accused has the right to determine whether the contents of a report concerning forensic examinations will be contested at trial”).

The Supreme Court has already considered, and rejected, the application of a constitutional demand-waiver doctrine in the speedy trial context. In a demand-waiver procedure, “a prior demand is a necessary condition to the consideration” of the constitutional right.<sup>219</sup> The demand-waiver doctrine also holds that a defendant waives any consideration of a right as to which he has not made a pretrial demand.<sup>220</sup> In a demand-waiver schema, it is irrelevant why the defense did not file a demand. There are no distinctions made between the overworked public defender, the lawyer who learns something new and important at trial, or the inevitable oversights that occur in the most careful of law offices. Failure to demand constitutes a “waiver” of the right.

In the forensic *ipse dixit* context, failure to demand that the State prove its case by live witnesses forever forecloses the defendant from confronting and cross-examining crucial State witnesses. Silence becomes waiver.

The United States Supreme Court, however, has firmly rejected the suggestion that a court may presume the “waiver of a fundamental right from inaction.”<sup>221</sup> A demand-waiver policy is wholly “inconsistent with [the Supreme] Court’s pronouncements on waiver of constitutional rights.”<sup>222</sup> Waiver is “an intentional relinquishment or abandonment of a known right or privilege.”<sup>223</sup> Silence is not “acquiescence” to the “loss of fundamental rights.”<sup>224</sup>

In the speedy trial context, as in the forensic certificate cases, courts and prosecutors have argued that waiver of the right in question advantaged, rather than disadvantaged, the criminal defendant. However, the Court declined to burden the defendant with the responsibility of invoking his Sixth Amendment right: “A defendant has no duty to bring himself to trial; the State has that duty as well as the duty of insuring that the trial is consistent with due process.”<sup>225</sup>

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219. *Barker v. Wingo*, 407 U.S. 514, 525 (1972).

220. *Id.* at 524-25.

221. *Id.* at 525.

222. *Id.*

223. *Id.* (quoting *Johnson v. Zerbst*, 304 U.S. 458, 464 (1938)).

224. *Id.* at 526 (quoting *Ohio Bell Tel. Co. v. Pub. Utils. Comm’n*, 301 U.S. 292, 307 (1937)).

225. *Barker v. Wingo*, 407 U.S. 514, 527 (1972). The Supreme Court did hold that the defendant’s assertion of his speedy trial right was one of four factors to be considered in any assessment of the constitutionality of delay. *Id.* at 528-30. However, this reflected the Court’s view that the speedy trial right is *sui generis* inasmuch as it protects both a defendant and the public. *Id.*

The Court also criticized the demand-waiver doctrine for placing defense counsel in an “awkward position.”<sup>226</sup> Unless counsel demands the right, counsel is in danger of frustrating his client’s right to a speedy trial.<sup>227</sup> The Court explained that, in practice, a demand-waiver rule would produce “either an automatic, pro forma demand made immediately after appointment of counsel or delays which, but for the demand-waiver rule, would not be tolerated.”<sup>228</sup> The same is true of the forensic *ipse dixit* statutes, particularly those which require counsel to guess whether the State will introduce a forensic affidavit, or those which require counsel to make affirmative representations about the defense prior to the government’s presentation of its case in chief. Under these statutes, the results are not “consistent with the interests of defendants, society, or the Constitution.”<sup>229</sup>

In the anticipatory demand statutes, application of the demand-waiver doctrine is particularly absurd. As the American Bar Association argued in a passage cited favorably by the Supreme Court, “there are a number of situations, such as where the defendant is unaware of the charge or where the defendant is without counsel, in which it is unfair to require a demand” to his Sixth Amendment right to a speedy trial.<sup>230</sup> Similarly, if a defendant does not know whether the government will rely on forensic hearsay, is it not nonsensical and unfair to require him to demand to confront the declarant?

## V. DUE PROCESS

One consistent feature of our constitutional criminal procedure system is its use of procedural rules to effectuate constitutional values. The forensic *ipse dixit* statutes are a perversion of this process; they use procedural rules to undermine constitutional values. As I explain below, the forensic *ipse dixit* gambit converts a partisan crime laboratory report into proof of an essential element, violating the reasonable doubt rule and cheating the Constitution.

The Due Process Clause of the United States Constitution guarantees a “fundamental right that protects ‘the accused against conviction except upon proof beyond a reasonable doubt of every fact

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226. *Id.* at 527.

227. *Id.* at 528.

228. *Id.*

229. *Id.*

230. *Id.* at 528 n.28 (quoting AMERICAN BAR ASSOCIATION, PROJECT ON STANDARDS FOR CRIMINAL JUSTICE, SPEEDY TRIAL 17 (Approved Draft 1968)).

necessary to constitute the crime with which he is charged.”<sup>231</sup> This is the reasonable doubt rule.<sup>232</sup> The Constitution’s criminal procedures enforce this rule by requiring that “proof burdens and rules of evidence. . . bias the outcome against erroneous conviction and toward erroneous acquittal.”<sup>233</sup> This bias in favor of acquittal is a core constitutional value. Procedures and presumptions that undermine the reasonable doubt rule, and flout the acquittal bias, violate the Constitution.

Of course, the forensic *ipse dixit* statutes are often little more than a deliberate attempt to roll back the reasonable doubt rule by relieving the prosecution of its burden of proof as to an essential element. The primary mechanism for this constitutional cheat is the legislative sleight-of-hand that makes a properly prepared forensic report *prima facie* proof of its contents. Regardless of their consequences for confrontation, these forensic *prima facie* statutes create unconstitutional mandatory presumptions.<sup>234</sup>

The forensic proof con game conflates the State’s burden of production and the State’s burden of persuasion. Production of the requisite evidence satisfies the burden of persuasion and simultaneously “establishes” the fact for which the evidence is offered.<sup>235</sup> Thus, production of a crime laboratory report is *prima facie*

231. *Lego v. Twomey*, 404 U.S. 477, 486 (1972) (quoting *In re Winship*, 397 U.S. 358, 364 (1970)). The Supreme Court did not formally announce this rule until its opinion in *Winship* in 1970. For nearly 200 years prior to *Winship*, however, courts and commentators had assumed that due process required that the prosecution prove each element of the charged offense by proof beyond a reasonable doubt. *In re Winship*, 397 U.S. at 362 (citing Supreme Court cases dating back to 1881).

232. The reasonable doubt standard occupies a prominent place in our civic mythology. *Coffin v. United States*, 156 U.S. 432, 453 (1895) (“The principle that there is a presumption of innocence in favor of the accused is the undoubted law, axiomatic and elementary, and its enforcement lies at the foundation of the administration of our criminal law.”). However, *Winship*’s promise is rarely realized; the vast majority of defendants plead guilty. While there are many reasons to allow and even promote plea bargains, the absence of any adversary testing of proof plagues our criminal justice system. As a result, scholars, judges, and practitioners have argued that our plea bargaining system renders *Winship* moot. The reasonable doubt standard affects the criminal justice system only in those few cases that go to trial and in those unusual cases in which the reasonable doubt standard deters the prosecution from bringing charges.

233. Donald A. Dripps, *The Constitutional Status of the Reasonable Doubt Rule*, 75 CAL. L. REV. 1665, 1690 (1987).

234. While the term *prima facie* is subject to definition by state rules and interpretation by individual judges, there are common understandings that guide an inquiry into the role of *prima facie* evidence. “The term ‘*prima facie* evidence’ denotes evidence which, if unexplained or uncontradicted, is sufficient in a jury case to carry the case to the jury and to sustain a verdict in favor of the issue which it supports, but which may be contradicted by other evidence.” 29 AM. JUR. 2D *Evidence* § 4 (1994). Black’s Law Dictionary defines *prima facie* evidence as “[e]vidence that will establish a fact or sustain a judgment unless contradictory evidence is produced.” BLACK’S LAW DICTIONARY 598 (8th ed. 2004).

235. See sources cited *supra* note 234.

or per se persuasion that the State has proven, beyond a reasonable doubt, the truth of the laboratory's conclusions.<sup>236</sup>

Consider, for example, a drug possession case. The State produces, in the required form, a crime laboratory certificate claiming that the laboratory tests demonstrate that evidence seized from the defendant contains an illegal controlled substance.<sup>237</sup> Relying on the forensic prima facie statute, the trial court then instructs the jury that the State has proven that the substance in question was, in fact, an illegal controlled substance. Thus, the forensic *ipse dixit* process converts the crime laboratory report into proof of an essential element.<sup>238</sup> The statute removes an element from the jury's consideration.

### A. *The Reasonable Doubt Rule*

Scholars generally agree that the reasonable doubt rule serves three basic purposes.<sup>239</sup> First, the reasonable doubt rule creates a concrete procedural structure in which to house the presumption of innocence.<sup>240</sup> This "high standard of proof" is generally thought to be "necessary. . . to ensure against unjust convictions by giving substance to the presumption of innocence."<sup>241</sup> The difficulty involved in meeting the standard serves as a "prime instrument for reducing the risk of convictions resting on factual error."<sup>242</sup>

Second, the reasonable doubt rule enforces a constitutional bias in favor of erroneous acquittals and against erroneous convictions. In Justice Harlan's words, the reasonable doubt standard reflects "a fundamental value determination of our society that it is far worse to convict an innocent man than to let a guilty man go free."<sup>243</sup>

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236. See sources cited *supra* note 234.

237. See, e.g., *In re J.W.*, 597 So.2d 1056, 1058-59 (La. Ct. App. 1992) (asserting that the State must prove that the substance recovered from the defendant is indeed illegal).

238. See, e.g., *State v. Clark*, 964 P.2d 766, 771-72 (Mont. 1998) (detailing the forensic *ipse dixit* process). As discussed *infra* Part V.B.2, whether, and to what extent, the legislature can take "legislative notice" of facts and deem them proven upon production of a particularized predicate is the subject of much scholarly debate. See *infra* notes 250-60 and accompanying text.

239. Note, *Winship on Rough Waters: The Erosion of the Reasonable Doubt Standard*, 106 HARV. L. REV. 1093, 1094 (1993).

240. *In re Winship*, 397 U.S. 358, 364 (1970).

241. *Lego v. Twomey*, 404 U.S. 477, 486-87 (1972).

242. *Winship*, 397 U.S. at 363. "Every shift in the burden of proof from the government to the defendant increases 'the risk of convictions resting on factual error.'" Nancy J. King & Susan B. Klein, *Essential Elements*, 54 VAND. L. REV. 1467, 1535 (2001) (quoting *Winship*, 397 U.S. at 363).

243. *Winship*, 397 U.S. at 372 (Harlan, J., concurring).

Third, the reasonable doubt standard helps adjust a playing field that is tilted toward the prosecution.<sup>244</sup> In part, the rule recognizes that many defense attorneys will be unable to conduct a thorough investigation<sup>245</sup> or trial preparation. Accordingly, many defendants will be inadequately represented. The reasonable doubt rule helps compensate for the unequal distribution of legal resources.

### *B. Understanding Presumptions and Burdens of Proof*

While the reasonable doubt rule allocates the burden of proof and restricts the use of presumptions, presumptions are not inherently unconstitutional. Rather, the reasonable doubt rule forbids only those presumptions that lessen the prosecution's burden of proof or that improperly shift the burden of proof to the defendant. Such a presumption is unconstitutional when the presumed fact constitutes an element of the offense that "must be either proved or presumed" as a precondition to conviction.<sup>246</sup> A proper understanding of this aspect of the reasonable doubt rule requires a brief review of burdens and presumptions.

#### 1. The Burden of Proof

The generic term "burden of proof" can be broken into three component parts: the burden of production, the burden of persuasion, and the standard of proof. The burden of production requires a party to properly raise an issue to put that issue into play. The burden of persuasion requires a party to meet a designated standard of proof as to the issues at play; if a party cannot meet its burden of proof, the finder of fact must find against that party.<sup>247</sup> The standard of proof refers to the quantum of proof required to sustain the burden of persuasion.<sup>248</sup> Thus, in a criminal case, the prosecution bears the burden of production as to all elements of the offense. It also bears

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244. For a discussion of a functionalist approach to the Sixth Amendment counsel guarantee as a means of leveling the playing field, see Pamela R. Metzger, *Beyond the Bright Line: A Contemporary Right-to-Counsel Doctrine*, 97 NW. U. L. REV. 1635 (2003).

245. *Winship on Rough Waters*, *supra* note 239, at 1095 n.14.

246. *Francis v. Franklin*, 471 U.S. 307, 317 (1985) (quoting *Patterson v. New York*, 432 U.S. 197, 215 (1977)).

247. Lawrence Solum, *You Prove It! Why Should I?*, 17 HARV. J. L. & PUB. POL'Y 691, 691 (1994). Professor Solum uses slightly different terminology. He divides burdens into two parts: the burden of persuasion and the burden of production. He further subdivides the burden of persuasion into two parts: the risk of nonpersuasion, which I call the burden of persuasion; and, the standard of proof. *Id.*

248. *Id.* at 691-92.

the burden of persuasion as to all elements of the offense. The standard of proof is proof beyond reasonable doubt.

Because the prosecution must prove all elements of a crime, a failure as to one element is tantamount to a failure as to all elements. This bundling of the burden of proof as an “all or nothing” package is deceptively simple; affirmative defenses, lesser-included offenses, and evidentiary presumptions make matters much more complicated.

The reasonable doubt burden of proof does not mean that the legislature cannot enact any presumptions. However, it does prohibit “the State from using evidentiary presumptions. . . that have the effect of relieving the State of its burden of persuasion beyond a reasonable doubt of every essential element of a crime.”<sup>249</sup> This prohibition on burden-relief is based, in part, on the risk that presumptions may result in “erroneous factual determination.”<sup>250</sup> Scholars, practitioners, and courts grapple with the proper application of *Winship*’s rule to evidentiary presumptions and affirmative defenses.<sup>251</sup> Indeed, one reason states have been so successful in their burden-shifting cheat is that it is difficult to understand, and even harder to enforce, the constitutional limits of presumptions.<sup>252</sup>

## 2. Presumptions

Presumptions fall into two general categories: permissive presumptions and mandatory presumptions. A permissive presumption “leaves the trier of fact free to credit or reject” the presumption and leaves the burden of proof squarely upon the prosecution.<sup>253</sup> A permissive presumption violates due process only if, under the particular facts of a particular case, no rational trier of fact could find, by proof beyond a reasonable doubt, that the basic fact proves (via the presumption) the elemental fact.<sup>254</sup> Thus, to successfully challenge a permissive presumption, a defendant must

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249. *Francis*, 471 U.S. at 313.

250. *County Court of Ulster County, N.Y. v. Allen*, 442 U.S. 157 (1979).

251. The complexity of these aspects of the reasonable doubt rule facilitates constitutional cheating by disguising operation of the three component parts of the burden of proof.

252. Moreover, there has been substantial criticism of the *Winship* doctrine as it has been applied in cases such as *Wilbur*. One of the most common critiques is the positivist argument that the legislature, which has the power to define crimes and defenses, must surely also have the power to shift the burden of proof as to defenses and, perhaps, as to matters that might be considered elements of the offense. For further discussion of the rationality of the Supreme Court’s reasonable doubt jurisprudence, see Matt Nichols, *Victor v. Nebraska: The ‘Reasonable Doubt’ Dilemma*, 73 N.C. L. REV. 1709 (1995).

253. *Ulster County*, 442 U.S. at 157 (citations omitted).

254. *Id.*

demonstrate that the presumption is invalid *as applied* to his or her case.<sup>255</sup>

In contrast, a mandatory presumption *requires* the trier of fact to find the elemental fact once the prosecutor proves the basic fact. Mandatory presumptions are always unconstitutional.<sup>256</sup> As the Supreme Court has explained, “the trial court may not withdraw or prejudge the issue” on trial.<sup>257</sup> Neither the legislature nor the court may “invade [the] fact finding function” which belongs solely to the trier of fact.<sup>258</sup>

There are two categories of mandatory presumptions: mandatory *conclusive* presumptions and mandatory *rebuttable* presumptions. A mandatory *conclusive* presumption removes “the presumed element from the case entirely if the State proves the predicate facts.”<sup>259</sup> Once the State proves the basic fact, the conclusive presumption prevents the jury from making an independent determination about the presumed element.<sup>260</sup> Production of the basic

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255. *Id.*

256. *Sandstrom v. Montana*, 442 U.S. 510, 522 (1979).

257. *Id.* (quoting *Morissette v. United States*, 342 U.S. 246, 274 (1952)). Similarly, when the trial court’s instructions amount to a directed verdict on one or more elements of the offense, the court has relieved the State of its burden of proof. *See, e.g., State v. Jackman*, 104 P.3d 686, 690 (Wash. Ct. App. 2004).

258. *Sandstrom*, 442 U.S. at 523. The legislature might, in some circumstances, lawfully craft a new substantive offense that did not depend upon the element to be proved by presumption. *See State v. Rotax*, 497 A.2d 378, 380 (Vt. 1985) (noting that the legislature eliminated the intent element from a low-level offense). However, there may also be constitutional limits on the legislative ability to eliminate certain core substantive elements from the definition of crimes. Justice Scalia’s concurrence in *Carella* suggests an alternative interpretation of the Supreme Court’s stance on clarifying and strengthening the standard of proof as to the elements of an offense. As Justice Scalia explained, the Supreme Court “has disapproved the use of mandatory conclusive presumptions not merely because it “conflict[s] with the overriding presumption of innocence with which the law endows the accused,” but also because it “invade[s] [the] fact-finding function’ which in a criminal case the law assigns solely to the jury.” *Carella v. California*, 491 U.S. 263, 268 (1989) (internal citations omitted). In that regard, the Supreme Court regards the reasonable doubt standard as a structural protection.

259. *Francis v. Franklin*, 471 U.S. 307, 317 (1985); *see also Yates v. Evatt*, 500 U.S. 391, 406 n.10 (1991) (“[T]he terms of a conclusive presumption tend to deter a jury from considering any evidence for the presumed fact beyond the predicate evidence.”). McCormick’s treatise on evidence offers an alternative characterization of mandatory conclusive presumptions: “[I]f it is proven that a child is under seven years of age, the courts have stated that it is conclusively presumed that she could not have committed a felony. In so doing, the courts are not stating a presumption at all, but simply expressing the rule of law that someone under seven years old cannot legally be convicted of a felony.” MCCORMICK ON EVIDENCE § 342, at 519 (John W. Strong ed., 5th ed. 1999).

260. John M.M. Greabe, *Spelling Guilty Out of a Record? Harmless-Error Review of Conclusive Mandatory Presumptions and Elemental Misdescriptions*, 74 B.U. L. REV. 819, 834 (1994).

fact is successful persuasion as to the elemental fact. By definition, a defendant can *never* rebut a mandatory *conclusive* presumption.<sup>261</sup>

In contrast, a mandatory rebuttable presumption does not irrevocably remove the presumed element from the jury's consideration. Rather, the rebuttable presumption requires the jury to find the presumed element *unless* the defendant persuades the jury that such a finding is unwarranted.<sup>262</sup> If the defendant does not "come forward with some evidence to rebut the presumed connection between the two facts," the trial court will instruct the jury that the prosecution has met its burden of proof with regard to the presumed element.<sup>263</sup> Thus, a mandatory rebuttable presumption both (1) relieves the prosecution of the burden of production and persuasion as to the presumed elemental fact; and (2) reallocates the burden of production, and sometimes the burden of proof, to the defendant to rebut the presumed elemental fact.<sup>264</sup>

Both of these mandatory presumptions are unconstitutional. Both impermissibly invade the jury's function and relieve the prosecution of its burden of proof. However, a conclusive mandatory presumption *precludes* further consideration of the presumed element; a rebuttable mandatory presumption permits further consideration of that element but shifts the burden of proof to the defendant to rebut the presumption.

### C. Presumptions and the Forensic Ipse Dixit Statutes

To understand how the forensic prima facie statutes circumvent the reasonable doubt rule, it is helpful to consider their actual application in a simple notice and demand DUI statute that makes a state laboratory report prima facie proof of the level of narcotics in a defendant's blood. Our hypothetical defendant is alleged to have had an illegal percentage of narcotics present in his blood stream. How does the forensic *ipse dixit* statute shift the burden of proof?

First, the statute makes the prosecution's forensic report admissible proof of the chain of custody. This means that the report proves two basic facts: (1) the state crime laboratory tested a blood sample actually taken from the accused; and (2) the report issued

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261. MCCORMICK ON EVIDENCE, *supra* note 259, § 342; *see also Sandstrom*, 442 U.S. at 522-23 (stating that a mandatory conclusive presumption directs a jury to find against a defendant on a particular fact or element once the State establishes certain facts).

262. *Francis*, 471 U.S. at 317.

263. *County Court of Ulster County, N.Y. v. Allen*, 442 U.S. 140, 157 (1979).

264. *Id.* at 157 n.16.

about the defendant's blood sample *claims* that a forensic analysis revealed the presence of an illegal narcotic substance. Second, the statute makes the forensic report prima facie proof that the contents of the report are true. Third, the *prima facie* presumption converts the crime laboratory report (an ex parte accusation) into an elemental fact, unless the defendant rebuts the connection between the basic fact (the forensic examiner's claim: tests *showed* narcotics were in the defendant's blood stream) and the essential fact (narcotics *were, in fact*, in the defendant's blood stream).

For example, Ohio's pattern jury instructions define "prima facie" evidence as evidence that "may be sufficient evidence to establish [the presumed fact], unless contradicted or explained away by other evidence of equal or greater weight."<sup>265</sup> This language avoids the prohibited "mandatory conclusive presumption" but shifts the burden of proof to the defendant, thereby creating a mandatory rebuttable presumption.

Of course, as discussed in Part IV, the forensic proof statutes prevent the defendant from cross-examining any State forensic witness. Since no knowledgeable forensic witness will testify on the State's case, the defendant has no witness to cross-examine to challenge either the accuracy of the test or the integrity of the tester. Thus, the presumption of the elemental fact is rebuttable if, and only if, the defendant puts on a case.<sup>266</sup> This is classic burden shifting in defiance of the Constitution.

#### *D. How Courts Justify the Presumption*

In an effort to insulate unconstitutional presumption from successful constitutional challenges, state courts legislate from the bench by asserting that they have instructed on a permissive presumption, rather than on a mandatory presumption.<sup>267</sup> Setting aside the question of whether sound policy favors a rule under which individual trial courts rewrite unconstitutional laws, a technically correct jury instruction cannot cure the unconstitutionality inherent in the *ipse dixit* forensic proof process.

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265. OHIO JURY INSTRUCTIONS § 5.15(2) (2002).

266. Although, in theory, a defendant might attempt to rebut the State's forensic claim through cross-examination of other witnesses, this tactic is unlikely to succeed.

267. This is consistent with the Supreme Court jurisprudence holding that jury instructions which properly allocate the burden of proof can save statutes that would otherwise violate the prohibition against mandatory presumptions. Of course, this presents another easy opportunity for constitutional cheating. If a proper jury charge will cure an otherwise unconstitutional statute that shifts the burden of proof, a rational legislature has no motivation, other than good conscience, to restrict itself to enacting constitutional presumptions.

Yet reviewing courts have justified these unconstitutional presumptions by pointing the finger at the defendant. Since the defendant cannot show “that forcing him to call the chemist during his own case caused him any prejudice,”<sup>268</sup> courts simply ignore the consequences of the constitutional cheat and claim that it is inconsequential whether a defendant has been forced to rebut the State’s proof on his own case-in-chief.

The forensic *ipse dixit* statutes portend tragic consequences for the constitutional integrity of our criminal procedure. The reasonable doubt rule is a bedrock foundation of our adversary system, and it is intended to guard against erroneous convictions by biasing fact-finders toward acquittal. Mandatory presumptions permit the legislature to usurp the fact finding function reserved for a jury, thereby eliminating the acquittal bias. If legislatures can “obliterate the procedural protections in the Bill of Rights,” then our “constitutional criminal procedural guarantees [become] largely meaningless.”<sup>269</sup>

In addition, there are basic burden-shifting consequences to this constitutional cheat. Forcing a defendant to subpoena the state chemist necessarily means the defendant cannot challenge the State’s forensic report until after the government rests its case.<sup>270</sup> Some courts trivialize this constitutional violation as routine, claiming that “[e]very defendant who presents a defense” experiences this prejudice.<sup>271</sup> But the constitutional issue is not whether a defendant takes risks when he chooses to present a case, but whether the legislature has *forced* the defendant to put on a case in order to bring an essential element of the offense within the ordinary decisionmaking power of the jury.

When the State must meet its burden on the State’s case-in-chief, the defendant has choices beyond a simple decision about whether to put on a defense. He can rely entirely upon the

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268. *Brown v. United States*, 627 A.2d 499, 507 (D.C. Cir. 1993).

269. King & Klein, *supra* note 242, at 1496. For an alternative view, see, e.g., Douglas Laycock, *Due Process and Separation of Powers: The Effort to Make the Due Process Clause Nonjusticiable*, 60 TEX. L. REV. 875, 890 (1982) (noting that some commentators, though not Laycock, argue that the legislature controls both substance and process, and that the Due Process Clause is nonjusticiable).

270. See, e.g., *Brown*, 627 A.2d at 507 n.13 (noting that the defendant argued his constitutional rights had been violated since he had an “immediate right to confront the witness,” but was instead “forced to wait until the government rested”). The defendant in that case also claimed that “by challenging the evidence he risked bolstering it.” *Id.* Of course, the general rule is that one must have a direct examination in order to cross-examine a government witness.

271. *Id.*

presumption of innocence and exercise his constitutional right to do nothing. He can exercise his right to cross-examine the State's forensic witness and can challenge the chain of custody, the tester's credentials, the accuracy of the scientific methodology, or the laboratory protocols. Or, the defendant can insist that the State bargain for the proof-benefit the State hopes to acquire and stipulate to the forensic element in exchange for some benefit.

In addition, a defendant who subpoenas the state laboratory worker to challenge the elemental fact necessarily presents his defense through a hostile witness employed by the prosecution. When the proof by affidavit is authorized by an evidentiary rule, any damaging statements elicited from the prosecution's forensic declarant go to the *credibility* of the facts contained in the report and not to the admissibility of the report itself.<sup>272</sup> In essence, "[b]y the time the defendant is allowed to begin the race, the state has already crossed the finish line."<sup>273</sup>

Finally, even if a court strictly construes a forensic *ipse dixit* statute as creating a permissive presumption, the *ipse dixit* statute nevertheless operates, de facto, as a mandatory presumption. The *ipse dixit* statutes are designed to excuse the State from calling, and to prevent the defense from cross-examining, any forensic witness. When the *ipse dixit* statute operates to keep forensic witnesses off of the witness stand, a defendant can rebut the permissive presumption only by presenting a defense case.<sup>274</sup> If the defendant does not call any witnesses, and cannot elicit relevant cross-examination, the defendant cannot rebut the presumption; he can only hope that the jury will conclude that the State has not met its burden. Even when the legislature's words create a permissive presumption, the Confrontation Clause violation morphs that permissive presumption into a mandatory presumption. After all, absent confrontation, the defense stands little chance of discrediting the forensic report. The elimination of cross-examination reveals the legislature's true intent: ex parte accusations made by police laboratories are readily and routinely converted into proof, beyond a reasonable doubt, of an essential element of the crime.

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272. *State v. Smith*, 323 S.E.2d 316, 333 (N.C. 1984).

273. *Id.*

274. Of course, there are cases in which other extrinsic, non-forensic evidence might justify a conviction.

VI. WHAT THE FORENSIC *IPSE DIXIT* PHENOMENON REVEALS

Why should we believe that constitutional cheats like the forensic *ipse dixit* statutes reveal something deeper and more profound than a general distaste for expensive criminal trials and an often-correct assumption that the accused are guilty? Certainly we could try to understand the forensic *ipse dixit* phenomenon as a unique result of the war on drugs that has dragged other forensic issues along in its wake. This would be a serious error.

True, drug-war hysteria may have provided the impetus for the initial forensic *ipse dixit* rules.<sup>275</sup> However, the drug war alone cannot explain why state legislatures fight back by cheating the Constitution. Nor can the drug war explain the startling uniformity of the cheating methodology, or the jurisprudential gymnastics that rationalize the legality of these statutes.<sup>276</sup> Something deeper is afoot.

A. *Assuming and Preferring Adversary Failure*

The forensic *ipse dixit* procedures illustrate a fundamental legislative assumption of system failure. Lawmakers assume that the criminal justice system minimizes costs and maximizes efficiency when defense counsel must initiate adversary procedures by filing labor and fact-intensive claims of entitlement.<sup>277</sup> In deference to this assumption, legislators structure forensic proof rules to require that

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275. Legislators have described the narcotics trade as a matter of national security. As a result, for nearly 35 years, heightened enforcement has been both “straining resources and serving as a justification for the dilution for traditional procedures of law enforcement and criminal prosecution.” Michael D. Blanchard & Gabriel J. Chin, *Identifying the Enemy in the War on Drugs: A Critique of the Developing Rule Permitting Visual Identification of Indescript White Powder in Narcotics Prosecutions*, 47 AM. U. L. REV. 557, 559 (1998). During 2000 there were 1,579,566 arrests for drug offenses. RYAN S. KING & MARC MAUER, DISTORTED PRIORITIES: DRUG OFFENDERS IN STATE PRISONS 1 (2002) (citing FEDERAL BUREAU OF INVESTIGATION, CRIME IN THE UNITED STATES: UNIFORM CRIME REPORTS (2000)). This number represents a threefold increase from only twenty years before when, in 1980, there were 580,900 drug arrests. *Id.* “There is little doubt that the perceived exigencies of the drug war impact evidentiary decisions on narcotics prosecutions.” Blanchard & Chin, *supra*, at 559-60.

276. According to Professor Dripps, “process-oriented theories of judicial review would suggest that unconstitutional legislation will rarely be confined to a single jurisdiction [because] the political pressures that produce its adoption in one place are likely to operate more broadly.” Dripps, *supra* note 233, at 1692.

277. In this regard, constitutional cheats are more likely to succeed when they are fact-intensive, rather than pro forma, invocations of constitutional rights. See, e.g., William J. Stuntz, *The Uneasy Relationship between Criminal Procedure and Criminal Justice*, 107 YALE L.J. 1, 38-40 (1997) (discussing why defense attorneys are more likely to make suppression motions than engage in other, more affirmative, discovery, investigation, motions, and trial defenses).

the defense take affirmative steps to initiate the (resource-intensive) exercise of constitutional rights.<sup>278</sup>

To confirm that a presumption of defense failure undergirds the structure of the forensic cheating statutes, we need only consider the other possible procedures that legislatures might have enacted to conserve forensic resources. After all, there is no abstract, structural reason to assume that the *ipse dixit* statutes would best meet this cost-savings goal. Presume, for a moment, that we credit the legislative justification for these statutes: the testing is reliable and defense counsel rarely choose to challenge the crime laboratory witness.<sup>279</sup> Why, then, do legislators universally prefer forensic *ipse dixit* rules over other, less burdensome procedural structures? Had legislators simply intended to make forensic-based prosecutions cheaper, there are many ways to do so without bypassing the Constitution.

For example, a legislature might enact criminal codes that use simple, old-fashioned housekeeping to conserve forensic resources. Each regional courthouse could be required to have a regular schedule of days on which the judges would hear motions and sit at trials that require the appearance of forensic witnesses. This would enable state crime laboratory workers to consolidate their court appearances, thereby limiting the amount of time they spend out of the laboratory, traveling to court, and testifying. So long as this schedule does not create Sixth Amendment speedy trial issues, or violate state speedy trial provisions, the system would gain efficiency without sacrificing rules that promote accuracy and fairness.

Another method of gaining efficiency would be to rely upon stipulations. A statute that requires prosecutors to offer to stipulate to the crime laboratory report would, in theory, serve the same function as the *ipse dixit* statutes. Consider the following hypothetical statute:

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278. It is axiomatic that responsible defense counsel must request and review the chain-of-custody and laboratory records in order to make an informed decision about the defense strategy. However, most forensic *ipse dixit* statutes do not provide information about underlying data or chain-of-custody records. See *supra* notes 43-44 and accompanying text. Of course, fear of sentencing consequences might discourage an effective and zealous defense attorney from pursuing forensic discovery, particularly if the client indicates a belief that the laboratory results are substantially correct. See Margareth Etienne, *Remorse, Responsibility, and Regulating Advocacy: Making Defendants Pay for the Sins of Their Lawyers*, 78 N.Y.U. L. REV. 2103, 2111-12 (2003) (asserting that judges use the “acceptance of responsibility” provision of the federal sentencing guidelines to penalize defendants whose lawyers over-zealously represent them. “Lawyers . . . play a game of all-or-nothing by balancing the chance that zealous advocacy will result in acquittal against the potential negative consequences for their clients if it does not.”).

279. See *supra* notes 14-15 and accompanying text.

In every criminal case in which the State plans to introduce proof concerning evidence gathered, stored, or analyzed by the State Crime Laboratory:

- (1) The prosecution shall offer to the defense, by no less than 20 days before trial
  - (a) copies of any and all forensic reports, tests, and analyses that support forensic conclusions that the State intends to prove at trial; together with
  - (b) a written offer to stipulate to the results of those reports, tests, and analyses;
- (2) However,
  - (a) upon oral or written representation, by a State prosecutor, to the trial court, that the effective presentation of the State's trial case requires live testimony from forensic witnesses, the prosecution shall not be required to offer to stipulate to the forensic evidence;
  - (b) if this representation is made after a stipulation has already been entered, then, upon request of the defense, the trial court shall grant a continuance of no less than 20 days so that the defense can prepare to cross-examine about the forensic evidence and retain, if necessary, expert forensic assistance;
- (3) In order to be effective, the stipulation must be signed by the defendant and by defense counsel. If either the defendant or defense counsel declines to stipulate, the prosecution shall proceed with the presentation of live testimony, as required by the United States Constitution, the State Constitution, and the applicable statutes and rules of the State.

In theory, this procedure means less work for all parties than the typical demand-oriented *ipse dixit* procedure. The State uses a generic stipulation (probably a computer template) and inserts particular forensic information already prepared by the crime laboratory. Either party can opt out of the stipulation process with relatively little effort. The prosecution can make an oral representation that stipulation would interfere with its case presentation. The defense can simply decline to sign the stipulation without making extensive written submissions that “justify” the insistence on full adversary testing of the State's evidence.<sup>280</sup>

So, why do lawmakers choose the *ipse dixit* procedure over the stipulation statute? The answer lies in the assumption of defense inaction and its consequence for default outcomes under these alternative statutes. Legislative drafters assume, probably correctly, that the average, overworked public defender is more likely to do

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280. The procedure also levels the playing field by empowering the defense to bargain away rights in exchange for benefits. The prosecutor asks the defense to waive a right, in this case, the right to confront and cross-examine the forensic witness and the right to have the government prove the forensic test results. The defense can, in turn, request some concession from the prosecution. Whether the bargain is struck will depend on how much each side values its respective interest in litigating, or agreeing to, the forensic proof.

nothing than something.<sup>281</sup> Legislators rely on this defense failure to help prosecutors get cheaper convictions.

In the *ipse dixit* model, when the defense does nothing, law enforcement, prosecutors, and judges do less work. In the stipulation model, when the defense does nothing, law enforcement, prosecutors, and judges do more work. In the *ipse dixit* model, the default outcome reduces adversarial scrutiny. In the stipulation model, the default outcome maintains the constitutional status quo: proof, beyond a reasonable doubt, established through the testimony of state witnesses who are confronted and cross-examined by the defense.

This is a powerful structural incentive. An adversarial adjudication is costlier and riskier for the prosecution than an *ipse dixit* rule that converts law enforcement claims into unadjudicable facts.<sup>282</sup> Moreover, in the *ipse dixit* procedures, the defense bears the transactional costs of invoking adversary procedures. Since defense attorneys often lack the time and money to support these transaction costs, the defense foregoes, or fails to even consider pursuit of the process.<sup>283</sup> In short, the forensic *ipse dixit* procedures conserve resources by relying upon defense passivity and by creating structural disincentives for defense counsel to act.

### B. Discouraging Public Discourse About Criminal Justice Policy

Constitutional cheating also has an important anti-democratic cost. When the legislature hides the cost of prosecution and bets on defense failures to maintain the cover, prosecutors avoid hard choices: resource-based decisions about which cases to prosecute. In turn, reducing the cost of prosecution helps legislators avoid difficult determinations about which conduct ought to be criminalized.

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281. Bureau of Justice statistics indicate that, in the country's 75 largest counties, approximately 82 percent of felony defendants in state courts rely upon public defenders or appointed legal counsel. DEP'T. OF JUSTICE, BUREAU OF JUSTICE STATISTICS, DEFENSE COUNSEL IN CRIMINAL CASES 1 (2000).

282. See King & Klein, *supra* note 242, at 1488 ("Trial-like adjudication is more costly, more time-consuming, and riskier for the government than judicial determinations at less formal hearings."). Thus, when prosecutors lobby the legislature about adjudicative rules, they lobby for rules that minimize cost, time, and risk. Professor Ron Wright suggests that prosecutors wield less power in the lobbying process when they seek adjudicative changes than they do when they seek increased punishment. Ronald F. Wright, *Parity of Resources for Defense Council and the Reach of Public Choice Theory*, 90 IOWA L. REV. 219, 258-59 (2004). This may reflect an honest belief that the general public is best served by "better funding and more reliable results" in the criminal justice system. *Id.* at 259.

283. See *id.* at 231 (asserting that differences in salary, workload, and support services "combine to produce an overall gap in spending between the prosecution and defense functions").

Instead, they simply legislate away some of the (constitutional) costs of prosecution.

Ordinarily, a state's decision to prosecute an offense necessarily implies its willingness to bear the associated costs of prosecution: "Governments, both state and federal, quite properly spend vast sums of money to establish machinery to try defendants accused of crimes."<sup>284</sup> A necessary corollary is that state funds will support the defendant in his effort to defend himself.<sup>285</sup> If states can not or will not bear the cost of providing expert testimony in all of the cases that prosecutors charge, let alone provide expert assistance to individual defendants, then prosecutors and legislators must reconsider how they wish to allocate their resources.

When legislatures, instead, cheat the Constitution to compensate for underfunding crime laboratories and public defenders, the subterfuge conceals the resource deficiency. This, in turn, stifles public debate about how the legislative and executive branches should allocate scarce resources.

Constitutional cheating not only disguises resource crises, but it breaks faith with the presumption of constitutional compliance. For example, the *ipse dixit* statutes help relieve prosecutors of their traditional obligation to exercise prosecutorial discretion within constitutional limits. Resource scarcity is one of the primary factors driving the exercise of prosecutorial discretion. Since prosecutors lack the time (and the motivation) to pursue, with equal vigor, all criminal violations, they routinely make policy decisions that prioritize a wide variety of goals. A prosecutor might decide to devote scarce prosecutorial and law enforcement resources to prosecuting child abusers instead of pot smokers. In the alternative, a prosecutor might choose to prosecute cases based on their prospective deterrent effect rather than upon their particular immorality. However, when constitutional cheating lessens resource constraints, providing prosecutors with a bargain-basement price for proving forensic elements, there is almost no incentive for prosecutors *not* to prosecute.

Prosecutorial discretion is checked by constitutional limits, legislative repeals, and electoral politics. If the public dislikes a prosecutor's choices, the public can vote the prosecutor out of office.<sup>286</sup>

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284. *Gideon v. Wainwright*, 372 U.S. 335, 344 (1963).

285. *Id.* However, *Ake*, which authorizes the appointment of experts to assist the defense, has been read quite narrowly by courts. See Carlton Bailey, *Ake v. Oklahoma and an Indigent Defendant's 'Right' to an Expert Witness: A Promise Denied or Imagined?*, 10 WM. & MARY BILL RTS. J. 401, 452-58 (2002).

286. In the federal context, this requires voting the President out of office since the Attorney General is appointed by the Chief Executive.

If the legislature dislikes a prosecutor's choices, it can change the substantive or procedural laws in a way that restricts those prosecutorial choices.<sup>287</sup> And, if the prosecution dislikes legislative funding choices, the prosecution can lobby the legislature, or appeal to the public. Thus, constitutional cheating disguises resource scarcity, discourages careful weighing of charging consequences, and breaks faith with the presumption of public participation in prosecutorial policy choices.

These institutional resource allocation questions have traditionally been at the core of both our constitutional criminal procedure and of the Supreme Court's constitutional analysis.<sup>288</sup> Indeed, these are precisely the sorts of political and institutional checks and balances that should occur in the criminal justice system. Thus, the system as a whole suffers when legislatures legislate away constitutional protections in exchange for efficiency.

### *C. Promoting and Reinforcing Anti-Constitutional Practice Norms*

Constitutional cheating dismantles a procedural architecture that expresses core constitutional criminal procedure values. Consider, for example, the due process principle that the prosecution bears the burden of proof in a criminal case by proof beyond a reasonable doubt. In accordance with that principle, criminal trials are ordered so that the prosecution presents its case first. This is not merely a cosmetic organization of a case, nor a sympathetic nod to the party that bears the burden of proof. Rather, this procedural ordering of evidence is a functional structuring of proof that gives life to the reasonable doubt standard. Similarly, the prosecution is required to rest its case—that is, say “we’re done for now”—before any defense case begins. Judges can thereby consider the prosecution's case, standing alone, weighed against the presumption of innocence.

When constitutional cheating reverses this procedural ordering of evidence, it reverses normative expectations about allocation of the burden of proof. This, in turn, promotes anti-constitutional expectations and marginalizes those defendants who enforce their

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287. *But see* *Inmates of Attica Corr. Facility v. Rockefeller*, 477 F.2d 375, 381 (2d Cir. 1973) (suggesting that the legislature can preclude, but not compel, prosecutorial choices). That is, the legislature can decriminalize certain conduct, thereby eliminating the possibility of prosecution. However, a legislative choice to criminalize conduct does not have the corresponding effect of forcing prosecution to charge those who may have engaged in that conduct.

288. *See* *Wayte v. United States*, 470 U.S. 598, 607-08 (1985) (noting that the government has broad, though not unfettered, discretion in deciding whom to prosecute; this allows the government to consider factors such as law enforcement priorities, resource conservation, and case strength when deciding which cases to pursue).

rights. For example, as discussed in Parts IV and V, the forensic *ipse dixit* statutes make defendants responsible for earning the erstwhile entitlement to cross-examination, and shift to defendants the burden of rebutting the prosecution's forensic claims.

This, in turn, creates and promotes the perception that adjudicative costs are created by the "difficult" defendant rather than by prosecutorial choices to charge, and legislative choices to criminalize and punish. For example, the purported reliability of forensic tests is often invoked as a justification of the constitutional cheating.<sup>289</sup> The suggestion is that cross-examination would have been useless, so the constitutional cheating is inconsequential.<sup>290</sup> The trivialization of fact-based focus on the State's proof also illustrates an underlying hostility to acquittals based upon something other than moral guilt. The elemental inquiry about the component parts of a criminal offense: "can the prosecution prove each element?" becomes subsidiary to the moral and factual inquiry: "did the defendant do it?" regardless of whether the State can prove it.<sup>291</sup>

Moreover, the constitutional cheating has systemic consequences that undermine structural constitutional incentives for careful and honest police work. Practitioners and police officers know that the likelihood of cross-examination provides an incentive for law enforcement to keep careful and accurate records that support prosecutorial claims. Thus, a system that focuses strongly on proof of all elements, for example, by requiring stringent forensic proof, deters sloppy or dishonest forensic work. However, when law enforcement

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289. *State v. Hancock*, 825 P.2d 648, 651 (Or. Ct. App. 1992) (citations omitted) (noting that the statute was enacted, in part, because of rarity of misidentification during drug testing).

290. *See Sherman v. Scott*, 62 F.3d 136, 142 (5th Cir. 1995) (concluding that because field tests indicated that the substance was cocaine, the laboratory test was cumulative and not a "critical" piece of evidence; therefore, admission of the report in lieu of live testimony "would not warrant habeas relief"); *Minner v. Kerby*, 30 F.3d 1311, 1314-15 (10th Cir. 1994) (concluding that the laboratory notes were trustworthy because they "concern[ed] mechanically objective tests . . . and were taken contemporaneously with the performance of the tests," because the police chemist's supervisor testified that he checked the chemist's computation and that chemist appeared to have followed standard lab procedures, and because the second police chemist claimed to have verified the results); *Reardon v. Manson*, 806 F.2d 39, 41-42 (2d Cir. 1986), *cert. denied*, 481 U.S. 1020 (1987) (stating that there is little utility in cross-examination because the chemists analyzed thousands of compounds each year and were unlikely to have independent memory of any particular test; moreover, "production of the chemist who performed the test 'rarely leads to any admissions helpful to the party'" (quoting *United States v. Bell*, 785 F.2d 640, 643 (8th Cir. 1986))); *accord* *United States v. McCormick*, 54 F.3d 214, 224 (5th Cir. 1995) ("We cannot fathom what additional, enlightening information the district court could have gleaned had [the parolee] been permitted to cross-examine the laboratory technicians.").

291. As discussed *supra* note 258 and accompanying text, this raises the question of whether and to what extent legislators can 'dumb down' the definition of substantive crimes to facilitate easier convictions.

understands that the system is structured to reduce the focus on proof of forensic evidence, it also understands that there will be few costs to forensic corner-cutting and even fewer opportunities for forensic frauds to be discovered.

*D. Limiting Institutional Opportunities to Proctor Constitutional Cheats*

Constitutional cheating also illustrates our systemic overdependence upon individual defendants and their attorneys to proctor the criminal justice system. Our criminal justice system's error-protecting features "depend for their enforcement on an adequate level of litigation by defendants, meaning in practice by defense counsel."<sup>292</sup> The criminal "defendant's rights are really the system's rules, rules that regulate the conduct of the various actors who take part in the process by which some criminal defendants are convicted and punished."<sup>293</sup>

Structural aspects of our criminal justice system, however, limit the extent to which defense attorneys can actually enforce constitutional protections and proctor constitutional cheating. First, constitutional rules are almost impossible to enforce when, in the vast majority of cases, the accusation is resolved by guilty plea. However, in the 95 percent of cases that resolve by way of plea bargain, the *ipse dixit* statutes ensure that the parties bargain under the normative assumption that the defendant cannot meaningfully hope to challenge the State's forensic evidence.

Second, a fundamental tenet of the attorney-client relationship is that counsel acts on behalf of the individual client and not on behalf of future defendants or the system as whole. This results in both parties to a criminal case preferring an individual resolution rather than a litigated solution that affects the entire system.

When defense counsel catches the government cheating, her responsibility is to leverage the identification of that cheat into a positive outcome for her client. Prosecutors have an institutional obligation to be sure that one remarkable defense case does not create a litigated outcome that fundamentally alters procedural rules that affect a large class of defendants. Accordingly, prosecutors have a

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292. Stuntz, *supra* note 277, at 12. However, some of the most significant rights-enforcing criminal procedure cases began as pro se litigations. *See, e.g.,* Gideon v. Wainwright, 372 U.S. 335, 337 (1963) (describing how petitioner originally represented himself). In the forensic *ipse dixit* context, some of the appellate and post-conviction litigation arises out of an allegation that counsel failed to consult the client about the decision not to challenge the forensic evidence.

293. Stuntz, *supra* note 277, at 12.

strong incentive to forego litigation of constitutional cheats in individual cases: the institutional costs associated with an adverse appellate ruling are simply too high. Smart prosecutors will agree to follow constitutional norms in a limited number of individual cases, rather than risk an appellate ruling that precludes all future use of the constitutional cheat at issue.<sup>294</sup> This reality reduces the likelihood that one attorney's identification and enforcement of a constitutional right will have a significant systemic enforcement effect.<sup>295</sup>

Even if one attorney successfully raises the constitutional issues, there are jurisprudential barriers to deterring future legislative cheats. For example, the prohibition against mandatory presumptions reflects a policy concern that the legislative branch must be restrained from substituting its legislative judgment for "the factfinder's responsibility at trial. . . to find the ultimate facts beyond a reasonable doubt."<sup>296</sup> As discussed earlier, the Supreme Court looks to the language of the actual jury charge, rather than the language of the statute, to determine whether a particular case presents a violation of the rule against mandatory presumptions.<sup>297</sup> Whether a presumption is permissive or mandatory depends upon "the *words actually spoken to the jury*."<sup>298</sup> Thus, regardless of how egregiously a statute violates the rule against mandatory presumptions, whether a court will strike down a statute as violative of the Due Process Clause depends entirely on "the way in which *a reasonable juror* could have interpreted" the presumption instruction actually given to a jury.<sup>299</sup>

The "actual language" rule creates a tree-falling-in-the-forest puzzle: is an unconstitutional statute unconstitutional if no court ever says so?<sup>300</sup> For example, assume a defendant pleads guilty based, in

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294. In the alternative, a smart prosecutor might offer plea-bargaining concessions responsive to the defendant's particular complaint.

295. While better information-sharing among defense attorneys might improve this problem, perhaps the individual nature of the defense attorney's role necessitates an institutional response that grants standing to someone responsible for litigating these issues outside of the traditional adversary system. Indeed, courts have resisted the idea that an individual defendant can seek to enforce a constitutional directive to the legislature, *State v. Peart*, 621 So. 2d 780, 786 (La. 1993), and have been similarly loathe to permit criminal defense attorneys to file claims on behalf of prospective clients, *Kowalski v. Tesmer*, 125 S.Ct. 564, 570 (2004).

296. *County Court of Ulster County, N.Y. v. Allen*, 442 U.S. 140, 156 (1979). This Article is largely couched in terms of the Due Process Clause, the traditional basis for the reasonable doubt standard. Recent Supreme Court cases, such as *Apprendi*, *Blakely*, and *Booker/Fanfan*, suggest that the academic and practical literature should reexamine the Sixth Amendment as another supplemental or independent source for the reasonable doubt rule.

297. *Sandstrom v. Montana*, 442 U.S. 510, 514 (1979).

298. *Id.* (emphasis added).

299. *Id.* (emphasis added).

300. I am indebted to Professor Darryl Brown for the "tree-falling-in-the-forest" metaphor.

part, upon his assumption that he cannot successfully undermine the prima facie force of the laboratory report. Is the statute unconstitutional in the absence of a soft, specific unconstitutional jury instruction provided to a particular jury in a particular case?

The puzzle's complexity increases exponentially when legislatures fail to respond to the relevant jurisprudence. Consider, for example, the status of forensic *ipse dixit* cases in Massachusetts. In 1989, defendant Johnson was convicted at trial after the government relied upon a forensic *ipse dixit* statute to prove an element of the offense. Following the relevant statutory language, the trial court instructed the jury that the crime laboratory report was "by law . . . prima facie evidence"<sup>301</sup> that they "must accept . . . unless there has been evidence to rebut it."<sup>302</sup> The court further explained that "unless there is evidence to show that that analysis as performed and carried in that sheet [offered by the prosecution] is some other substance, then you must accept that it has been analyzed and found to be cocaine."<sup>303</sup>

On review, the Massachusetts Supreme Court held that the instructions created an unconstitutional mandatory presumption.<sup>304</sup> The legislature, however, failed to amend the statute. Accordingly, the relevant statute still contains the constitutionally offensive prima facie language.<sup>305</sup> What then are we to make of guilty pleas obtained under the statute, post-*Johnson*?<sup>306</sup>

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301. MASS. GEN. LAWS ch. 111, § 13 (1988).

302. *Commonwealth v. Johnson*, 542 N.E.2d 248, 248 (Mass. 1989); *see also* *Commonwealth v. Claudio*, 541 N.E.2d 993, 994 (1989) ("You must accept that presumption unless there is any evidence to the contrary to rebut that presumption. That's what prima facie evidence means. It carries with it a presumption that stands unless there is evidence to rebut that presumption. So, you have with you the analysis sheets and they constitute prima facie evidence, carrying the presumption that the drugs are heroin, and in the weight specified within those sheets.").

303. *Johnson*, 542 N.E.2d at 248. This instruction is not an anomalous interpretation of the prima facie language.

304. *Id.* at 249. The court affirmed the conviction, however, since the issue had not been preserved by the defendant's objection and the error was deemed harmless. *Id.*

305. MASS. GEN. LAWS ch. 111, § 13 (2005).

306. The likelihood of meaningful appellate redress is further reduced by the harmless error standard that applies to Confrontation Clause violations. *See Delaware v. Van Arsdall*, 475 U.S. 673, 684 (1986) ("The correct inquiry is whether, assuming that the damaging potential of the cross-examination were fully realized, a reviewing court might nonetheless say that the error was harmless beyond a reasonable doubt."). A Confrontation Clause violation is harmless "if the violation did not contribute to the verdict 'beyond a reasonable doubt.'" Sarah A. Stauffer, *Sixth Amendment at Trial*, 87 GEO. L.J. 1641, 1657 (1999). As a result, *Crawford* violations may be unredressable, thus increasing the importance of vigorous litigation in the trial court.

## VII. CONCLUSION

The forensic *ipse dixit* phenomenon reviewed in this Article represents far more than an unwarranted legislative confidence in the accuracy of science and its practice in state crime laboratories. Rather, the forensic *ipse dixit* phenomenon illustrates a dangerous game of constitutional smoke and mirrors. In the guise of resource conservation, lawmakers are chipping away at the procedural foundations of constitutional criminal procedure. State legislatures have created rules that help prosecutors cheat their way to quicker and cheaper convictions. Under-litigation and under-enforcement by defense attorneys and judges, respectively, prevents successful proctoring of the criminal process; accordingly, the constitutional cheating succeeds on a spectacular level.<sup>307</sup> In the wake of recent Supreme Court decisions like *Crawford*, we can hope that courts will vigorously enforce the Sixth Amendment guarantees that should serve as prophylactics against constitutional cheating and its consequences. Successful judicial proctoring of constitutional cheats, however, requires that litigants first deconstruct the rhetorical artifice that masks the statutory subterfuge. Like any other kind of cheating, constitutional cheating secretly flouts the rules and gives the cheater an unwarranted advantage over the game's other players. To date, the cheaters are winning. Whether the cheaters will succeed remains to be seen.

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307. The ABA Criminal Justice Section Subcommittee on Forensic Science believes that only "adequate funding, accreditation of crime laboratories and medical examiner offices, certification of examiners, standardization and publication of procedures, comprehensive and reciprocal pretrial discovery of expert testimony, defense access to experts for indigents, and training of lawyers in forensic science" will rectify the forensic evidence crisis." Raeder, *supra* note 91, at 1320.