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FROM THE EDITOR-IN-CHIEF

To Our Readers:

This letter begins the Fall 2015 issue of the *Criminal Law Practitioner,* American University Washington College of Law's only student-run criminal law publication dedicated to addressing key criminal law issues in ways that are helpful to practicing attorneys, judges, legislators, and law students. Now in our third year of publication, we are proud of the progress we've made since launching in Fall 2013. In just three years we've have been fortunate enough to collaborate with the National Association of Criminal Defense Lawyers (NACDL) and the ABA Criminal Justice Section. Our last issue, published in Summer 2015, was a collaborative effort between the *Practitioner* and the ABA and addressed the ever present issues of collateral consequences within the criminal justice system.

This present issue represents the *Practitioner*'s decision to return to its roots. These four articles advocate and inform, addressing the use of adult testimony via closed-circuit television; analyzing Maryland handgun laws in light of the Supreme Court's decision in *District of Columbia v. Heller*; examining aggregate sentencing under *Miller v. Alabama*; and discussing the probability theory in relation to DNA proof. It is our hope that these varied topics will be of interest to all of our readers.

This issue could not have been made possible without the time and hard work of our dedicated staff and executive board. I cannot thank them enough for their efforts. Jacqueline Morley and Cheline Schroder handled our solicitations; Jon Yunes and Monisha Rao our formatting; and Janissia Orgill, Makia Weaver, Braxton Marcela, and all of our staffers and senior editors handled editing. In addition, our Blog Editors, Kieley Sutton and Robert Martinez worked hard to completely revamp our website. Please visit it at http://www.crimlawpractitioner.com.

As always, we welcome submissions for future issues. To anybody who is interest in submitting an article for consideration, please e-mail your submission to crimlawsubmissions@wcl.american.edu.

We hope you enjoy this issue.

Sincerely,

Trevor Addie
Editor-in-Chief

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Practitioners

Kids, Leave the Guns at Home: Why Maryland's "Good and Substantial Reason" Requirement Comports with Constitutional Aims in the Post-Heller Era

by Julia Johnson

I. INTRODUCTION

After the Supreme Court's seminal holding in *District of Columbia v. Heller*, lower courts have struggled to ascertain the scope of individual handgun rights conferred by the Second Amendment.[1] *Heller's* narrow holding, conspicuously silent as to the Court's views regarding handgun access *outside* the home, has provided only limited guidance for lower courts.[2] In declining to promulgate a modern conception of the boundaries of Second Amendment rights, *Heller* has left lower courts scrambling upon review of many State gun-control policies, leaving some of these courts to erroneously cling to tangential analysis insufficiently correlated to the issue at hand.[3] As in *Woollard v. Sheridan*,[4] this consequent misanalysis has resulted in policy implications that stray far from aims of the Framers.

In *Woollard*, the Court undertook review of Maryland's handgun provision and determined that the requirement was unconstitutional pursuant to a supposedly logical, yet wholly untenable, line of reasoning. Instead, per the rationale developed in this article, the Court failed to recognize that the Second Amendment right to handgun access outside the home, if one exists at all, is neither guaranteed nor extensive, but are qualified and limited by public safety considerations.

II. FACTS

Pursuant to Maryland's Criminal Law Code, §4-203 (hereafter "provision"), the State of Maryland mandates that an individual carrying a gun outside the home, either as open or concealed carry, must possess a State-issued handgun permit.[5] To obtain a permit, an applicant must first demonstrate that he lacks specific criminal or drug convictions, has a stable character, and is neither addicted to drugs nor an alcoholic.[6] In addition, the Secretary of the State Police (hereafter "Secretary") must determine that the applicant "has good and substantial reason to wear, carry, or transport a handgun" before the permit may be issued.[7] The Handgun Permit Unit (hereafter "Permit Unit") serves as the Secretary's designee and reviews applications for handgun permits within the State.[8] In making a decision on an applicant's file, the Permit Unit looks to four "general categories" demonstrating a "good and substantial reason" under which reasonable need for handgun use outside the home may occur.[9] An applicant must successfully demonstrate one of these factors to be granted a permit.[10]

At issue here is the fourth and final provision, "personal protection."[11] To succeed pursuant to this provision, an applicant must demonstrate "some sort

1 *See* Stacey L. Sobel, *The Tsunami of Legal Uncertainty: What's a Court to Do Post-McDonald?*, 21 Cornell J.L. & Pub. Pol'y 489, 490-1 (2012).
2 *Id.*
3 *Id.*
4 *Woollard v. Sheridan*, 863 F. Supp. 2d 462 (D. Md. 2012), abrogated by *Woollard v. Gallagher*, 712 F.3d 865, 878 (4th Cir. 2014)(Reversing and providing that "[w]e are convinced by the State's evidence that there is a reasonable fit between the good-and-substantial-reason requirement and Maryland's objectives of protecting public safety and preventing crime").
5 *Id.* at 464.
6 *Id.* at 465.
7 *Id.*
8 *Id.*
9 *Id.*
10 *Woollard,* 863 F. Supp. 2d at 465.
11 *Id.*

of objectively heightened threat, above and beyond the 'personal anxiety' or apprehension of an average person."[12]

If the Permit Unit denies an applicant after review, the applicant may appeal to the Handgun Permit Review Board (hereafter "Board"), which will either reverse or confirm the decision.[13] Upon appeal, the Board also utilizes a multi-factor criterion to determine whether the Permit Unit's decision should be upheld.[14]

On December 24, 2002, Plaintiff Raymond Woollard was at home in rural Baltimore County, Maryland, when Kris Lee Abbott broke into the home to obtain his wife's car keys to drive into the city to purchase drugs.[15] During the incident, Woollard and Abbott engaged in a violent quarrel wherein the use of deadly force was threatened.[16] Abbott received a sentence of three years' probation after being charged with first-degree burglary for the incident, and was subsequently incarcerated after violating his probation terms.[17]

In 2003, Woollard applied, and was approved, for a handgun permit in order to protect himself from Abbott. The permit was renewed in 2006 after Abbott's prison release.[18] However, when Woollard again applied in 2009 to renew his handgun permit, his application was denied after the Permit Unit concluded that he had failed to produce sufficient evidence demonstrating a present threat necessitating the use of a handgun, and the Unit held that "general self-defense" was an inadequate basis for granting a permit.[19]

Woollard appealed the decision via both the informal review procedures of the Permit Unit and, subsequently, to the Board, which confirmed the denial.[20]

III. LEGAL BACKGROUND

In *Heller*, the Supreme Court held that a District of Columbia provision causing the absolute prohibition of firearm use for self-defense within the home unconstitutionally violated the Second Amendment.[21] Acknowledging that handgun violence in the nation continues to pose a threat to public safety, the Court maintained that "the enshrinement of constitutional rights necessarily takes certain policy choices off the table."[22] Despite the Court's vehemence in safeguarding individual handgun access within the home, *Heller* failed to provide guidance as to the transferability of these rights outside the home.[23] The foregoing policy restrictions were extended to the governing bodies of the States in *McDonald v. City of Chicago*.[24]

Fortunately for courts scrambling to comprehend *Heller's* bounds, the Supreme Court flagged two limitations on the right: (1) restrictions upon the types of weapons whose use is protected and (2) "presumptively lawful regulatory measures."[25] Regarding the former, only those weapons "typically possessed by law-abiding citizens for lawful purposes" fall under the scope of Second Amendment protections.[26] However, as to the latter, courts have grappled to comprehend *Heller's* interpretation of "presumptively lawful" measures and multiple interpretations are plausible.[27]

In addition, laws limiting an individual's capacity for self-defense, may be less likely to pass constitutional muster because this capacity is "fundamental" to the Second Amendment right and even its "central component."[28] However, an individual's right to self-defense via firearms generally becomes more limited outside of the home because "public safety interests often outweigh individual interests in self-defense."[29]

Despite concern over *Heller's* ambiguities, a two-prong test is often used for analysis of Second Amendment challenges.[30] Upon review of a Second

12 *Id.*
13 *Id.*
14 *Id.*
15 *Id.*
16 *Woollard,* 863 F. Supp. 2d at 465.
17 *Id*.
18 *Id.*
19 *Id.*
20 *Id.*
21 *District of Columbia. v. Heller*, 554 U.S. 570, 635–36 (2008).
22 *Id.* at 636.
23 *Id.* at 635.
24 130 S.Ct. 3020, 3050 (2010).
25 *United States v. Chester*, 628 F.3d 673, 676 (4th Cir. 2010) (citing *D.C. v. Heller*, 554 U.S. 570, 625 (2008)).
26 *Id.*
27 *Id.* (Stating that presumptively lawful requirements may include provisions that "regulate conduct outside the scope of the Second Amendment," or those that "pass muster under any standard of scrutiny.")
28 *United States v. Marzzarella*, 614 F.3d 85, 91 (3d Cir. 2010).
29 *United States v. Masciandaro*, 638 F.3d 458, 470 (4th Cir. 2011).
30 *Chester*, 628 F.3d at 680.

Amendment claim, the receiving court must first determine "whether the challenged law imposes a burden on conduct falling within the scope of the Second Amendment's guarantee" as it was historically understood "at the time of ratification."[31] If the court determines that the provision does burden an individual's Second Amendment rights, then the court next undertakes analysis of the issue under the latter prong, and applies "an appropriate form of means-end scrutiny."[32] Conversely, if the issue does not affect these rights, the analysis ends there.[33]

After determining review of the challenged provision is appropriate, a court must ascertain the most suitable "form of means-end scrutiny."[34] Particularly, as the severity of the burden increases, the level of scrutiny applied should become more stringent, whereas "laws that merely regulate rather than restrict . . . may be more easily justified."[35]

Many courts have determined that intermediate scrutiny is the most appropriate standard of review for state gun-control regulations.[36] *Heller* failed to articulate the proper level of scrutiny for analysis of Second Amendment contentions[37]; however, the Court rejected rational basis review. Since strict scrutiny is likely to deprive lawmakers of their capacities to create legislation to fight against "armed mayhem," intermediate scrutiny is often used to analyze the irreconcilable tension between individual rights and public safety considerations.[38]

Firearm provisions under intermediate scrutiny do not lend themselves to easy decision-making.[39] Under intermediate scrutiny review, the fit between the legitimate goal and regulation undertaken for its furtherance need not be perfect, but merely substantial, and does "not require that a regulation be the least intrusive means of achieving the relevant government objective, or that there be no burden whatsoever on the individual right."[40] Consequently, in determining the constitutionality of a given provision, lower courts may be in for a tumultuous ride – one that hinges solely upon a determination of "reasonableness."

IV. HOLDING

The *Woollard* Court determined that while the State undeniably has a legitimate goal in reducing handgun access, the "good and substantial reason" requirement failed to achieve these aims in a satisfactory manner.[41] Instead, the Court criticized the provision as overbroad, indiscriminate, and "not tailored to the problem it is intended to solve."[42]

In undertaking the analysis of Woollard's contentions, the Court followed other jurisdictions in determining that intermediate scrutiny review was appropriate.[43] As in *United States v. Masciandaro*, which held that "a lesser showing is necessary with respect to laws that burden the right to keep and bear arms outside the home,"[44] the *Woollard* Court also agreed that strict scrutiny review was improper because Woollard's claims pertained exclusively to handgun use outside the home, where the necessity for handgun access was less acute.[45] Intermediate scrutiny was most fitting because Woollard's claims fell "within this same category of non-core Second Amendment protection."[46]

The Court then delved into an original analysis of the scope of an individual's Second Amendment rights to handgun possession outside the home.[47] Acknowledging that its precedent had declined to explore this murky issue in fear of the ramifications of so doing,

31 *Id.* As an example of regulation deemed "presumptively lawful," *Heller* and its progeny have continually upheld "longstanding regulatory measures," including barring handgun access to felons and the mentally ill, handgun restrictions imposed in schools and government buildings, certain restrictions on the carry of concealed weapons, and "laws imposing conditions and qualifications on the commercial sale of arms."

32 *Id.*

33 *Id.*

34 *Id.*

35 *Chester,* 628 F.3d at 682 (citing *United States v. Skoien*, 587 F.3d 803, 813-14 (2009) (vacated)).

36 *Id.* at 682.

37 *Id.*

38 *Masciandaro*, 638 F.3d at 471.

39 Eugene Volokh, *Implementing the Right to Keep and Bear Arms for Self-Defense: an Analytical Framework and a Research Agenda*, 56 UCLA L. Rev. 1443, 1470 (2009).

40 *Masciandaro*, 638 F.3d at 474.

41 *Woollard*, 863 F. Supp. 2d at 474.

42 *Id.*

43 *Masciandaro*, 638 F.3d at 460.

44 *Id.* at 469-71.

45 *Woollard*, 863 F. Supp. 2d at 475.

46 *Id*.at 468.

47 *Id.*

the *Woollard* Court declared that it could not resolve the instant case without venturing "into the unmapped reaches of Second Amendment jurisprudence."[48] Thereafter, the Court embarked upon an ambitious quest to reach its own conclusion, clinging to the few clues provided in *Heller*.

Beginning its analysis, the Court first sought guidance from the express terms of *Heller*. Alleging that *Heller*'s declaration that the need for self-defense was "most acute" in the home necessarily supported the existence of an area where this need is not "most acute," the *Woollard* Court opined that logic demanded handgun rights outside the home.[49] In addition, citing dicta from *Masciandaro* that "the Second Amendment's protections must extend beyond the home," because "self-defense has to take place wherever [a] person happens to be,"[50] the *Woollard* Court proposed that the Second Amendment's provisions necessarily implied an individual right to handgun access outside the home for general self-defense.[51] However, the Court remained silent on the scope of this right extending beyond the facts of the instant case.[52]

Next, the Court reviewed Woollard's three attacks upon the constitutionality of Maryland's handgun provision. Decrying the shortfalls of the provision, Woollard alleged that the regulation (1) "vests unbridled discretion" in State officials, (2) is insufficiently tailored to the State's legitimate interest in public safety, and (3) operates as a flagrant violation of the Fourteenth Amendment.[53]

Regarding Woollard's first contention, the Court dispelled a finding that State officials possessed "unbridled discretion" while applying provisions of the statute because the Secretary had developed criterion to guide decision-making and to limit official discretion.[54] Moreover, the Court pointed to an applicant's capacity to appeal permit denials through full review by the Board.[55]

Regarding Woollard's second contention, the Court instigated analysis as to whether Maryland's "good and substantial" requirement was adequately tailored to public safety considerations. To pass constitutional muster, a gun-control mechanism must be "narrow, objective and definite."[56] Utilizing intermediate scrutiny as a lens, the Court conceded that the fit between the legislation and the State interest "need not be perfect."[57]

Nonetheless, the Court held that the Maryland provision failed to withstand intermediate scrutiny because the challenged legislation overly burdened individual rights, while failing to adequately promote public safety.[58] The Court chided the provision as a "rationing system" whose effects were akin to "a law indiscriminately limiting the issuance of a permit to every tenth applicant."[59]

In addition, the Court opined that the "good and substantial reason" requirement was unlikely to improve public safety because the challenged regulation placed deadly weapons in the hands of those individuals *most* likely to be victimized, and thus, those individuals with the greatest propensity to "use them in a violent situation."[60] Accordingly, while conceding the State's valid interest in ensuring public safety, the "good and substantial reason" requirement insufficiently furthered these aims.[61]

V. ANALYSIS

In quashing the Maryland handgun provision, the Court erred via several avenues in its comprehension of contemporary Second Amendment jurisprudence and acceptable restrictions upon individual handgun rights. First, Maryland's handgun provision does not necessarily fall within *Heller's* boundaries, the narrow holding of which was limited to handgun access exclusively within the home.[62] Second, even if *Heller* encompassed the facts of the instant case, *Heller* bars only the *absolute* prohibition of handguns;[63] whereas here, handguns may be made available to those individuals

48 *Id.* at 469.
49 *Id.* at 469.
50 *Masciandaro*, 638 F.3d at 468.
51 *Woollard*, 863 F. Supp. 2d at 471.
52 *Id.*
53 *Id.*
54 *Id.* at 472–73.
55 *Id.* at 474.
56 *Id.* at 472.
57 *Woollard,* 863 F. Supp. 2d at 475.
58 *Id.* at 474–75.
59 *Id*. at 474.
60 *Id.*
61 *Id.* at 475 (the Court declined to review Woollard's third contention that the Maryland provision was an Equal Protection challenge pursuant to the Fourteenth Amendment because Woollard's Second Amendment claim provided a sufficient framework to analyze the manner).
62 *United States v. Skoien*, 614 F.3d 638, 640 (7th Cir. 2010).
63 *Heller*, 554 U.S. at 635–36.

with demonstrated need[64] and, therefore, the legislation merely serves to regulate handgun access outside the home, whilst leaving handgun rights within the home unaffected.[65] Finally, the Court speciously overlooked the core, fundamental aim of the Second Amendment right – facilitating an individual's capacity for self-defense.[66]

Thus, *Heller* neither supports the creation of handgun rights for "general self-defense" outside the home, nor does it disavow the categorical exclusions present in Maryland's handgun provision.[67] In holding that Maryland sought to reach its valid interests in a

constitutionally impermissible manner,[68] *Woollard* cites neither precedent nor doctrine to buttress its claims, but instead pulls this idea from the sky. Consequently, the *Woollard* Court's handiwork is wholly at odds with the purpose for the Second Amendment's founding,[69] deviates from other jurisdictions,[70] and spikes the deepest fears of public safety activists.[71]

A. A Right to Individual Handgun Access is Not Presupposed under Heller

At no point in *Heller* was a right to handgun possession outside the home either discussed or recognized, and "the ruling itself was exceedingly narrow" with the Court leaving "numerous questions undecided."[72] *Woollard*, swaying against the bulk of those decisions rendered by other courts, found a ready companion in *Heller* and *McDonald*,[73] but given their limited expanse, these opinions should not have formed the basis for a contention that lay only on the periphery of *Heller's* limited proscriptions.[74] As stated aptly in *Pirszczatoski v. Filko*, "if the . . . Court . . . had intended to create a broader general right to carry for self-defense outside the home, *Heller* would have done so explicitly."[75]

Moreover, *Heller* explicitly banned only the *absolute prohibition* of handguns,[76] whereas Maryland's handgun provision merely regulates individual access to handguns but stops short of absolutely prohibiting their use throughout the entire populace.[77] Consequently, when *Heller* averred that the guarantee under the Second Amendment "necessarily takes certain policy choices off the table,"[78] the Maryland provision is not encompassed within these restrictions.

In addition to improperly applying *Heller*, *Woollard* also fell prey to shoddy logic. Particularly, *Woollard* egregiously erred by entertaining the logical fallacy that individual handgun rights must necessarily extend beyond the home.[79] *Heller's* safeguarding of handgun

64 *Woollard*, 863 F. Supp. 2d. at 475.
65 *Id.* at 469.
66 *Moore v. Madigan*, 842 F. Supp. 2d 1092, 1103 (C.D. Ill. 2012).
67 *Heller*, 554 U.S. at 635–36.
68 *Woollard*, 863 F. Supp. 2d at 475.
69 Patrick J. Charles, *Scribble Scrabble, The Second Amendment, and Historical Guideposts: A Short Reply to Lawrence Rosenthal and Joyce Lee Malcom*, 105 Nw. U.L. Rev. 227, 229 (2011) (stating that "the fact of the matter is that the entire purpose of the Second Amendment was the furtherance of the 'public good'").
70 *See Moore*, 842 F. Supp. 2d at 1103; *Piszczatoski v. Filko*, 840 F. Supp. 2d 813, 835 (D. N. J. 2012).
71 Gary Kleck & E. Britt Patterson, *The Impact of Gun Control and Gun Ownership Levels on Violence Rates*, 9 Journal of Quant. Crim. 249, 250 (1993).
72 Cass R. Sunstein, *Second Amendment Minimalism: Heller as Griswold*, Harv. L. Rev. 246, 267 (2008).
73 *Woollard*, 863 F. Supp. 2d at 466.
74 *See, e.g., State v, Knight,* 218 P.3d 1177, 1189-90 (Kan. App. 2009); *Williams v. State*, 10 A.3d 1167, 1176 (Md. 2011).
75 840 F. Supp. 2d 813, 833 (D.N.J. 2012).
76 *Heller*, 554 U.S. at 635–36.
77 *Woollard*, 863 F. Supp. 2d at 465.
78 *Heller*, 554 U.S. at 570.
79 *Piszczatoski*, 840 F. Supp. 2d at 828 (noting "the logical fallacy of the plaintiff's argument that the sensitive places exception necessitates the interpretation that the Supreme Court recognized a general right to carry outside the home is easily demonstrated").

rights within the home, where this need is "most acute," does not automatically sustain an inference that those rights apply where "that need is not 'most acute.'"[80] The absolute grant of a right in one arena does not, without more, transfer this right into another realm. Instead, logical reasoning allows for speculation that this right (1) may pertain exclusively to the home, as the term "most acute" operates merely as a descriptive qualifier,[81] (2) may exist in only a limited capacity outside the home, one which excludes "general self-defense,"[82] and (3) may be limited to certain qualifying individuals following government action, such as after granting a handgun permit, as depicted in the Maryland provision.[83] Consequently, when *Woollard* opined that an individual need only "the right's existence" to gain an ability to exercise his right, the Court presupposed the presence of a right to handgun access outside the home, in situations akin to Woollard's, when none may exist.[84]

B. Heller and its Progeny Do Not Support the Woollard Court's Decision

Maryland's handgun provision should not be rendered constitutionally infirm as a consequence of its restrictive, categorical criterion because the provision does not violate the policy forbearances of *Heller* and *McDonald*.[85]

Furthering this contention, strong government regulation pertaining to handgun access outside the home, as demonstrated in the Maryland provision, harmonizes with *Heller*. *Heller*, by intentionally withholding guidance to State lawmakers for developing appropriate legislation, fosters an inference of the Supreme Court's intention to allow broad latitude to the States in instigating handgun regulations.[86] Consequently, given that the *Woollard* Court concedes this latitude, *Woollard's* holding is seemingly unsubstantiated, as the provision does not arbitrarily take the right away from a given individual, but instead weighs public safety considerations with individual interest, taking away the right whereas necessary to further overall public welfare– actions which are hallmark characteristics of constitutionally permissible government regulation.[87]

C. The Maryland Provision Comports with the Self-Defense "Core" of the Second Amendment

Finally, as safeguarding an individual's capacity for self-defense is the "central component" of the Second Amendment right,[88] *Woollard* erred by failing to fully consider the safety ramifications for both the individual and the public at large – the majority of whom choose not to possess a handgun.[89] While an individual's right to handgun access inside his or her home remains sacrosanct per *Heller*,[90] once an individual leaves his home, it would be perturbingly unpalatable that he should have the unfettered right to carry a handgun on his person for self-defense as he sees fit. Utilizing "self-defense" as an impetus for its instigation,[91] Maryland's handgun restriction comports with good policy sense because limiting handgun access to certain groups will result in heightened self-defense capacities amongst the majority of citizens, most of whom are unarmed, as well as improvements in overall safety.[92]

Therefore, by limiting handgun access to those individuals who most benefit from their protection, the

80 *Woollard*, 863 F. Supp. 2d at 467.

81 *Gonzales v. Village of West Milwaukee*, No. 09-CV-0384, 2010 WL 1904977, at *4 (E.D. Wis. May 11, 2010) ("the Supreme Court has never held that the Second Amendment protects the carrying of guns outside the home").

82 *Piszczatoski*, 840 F. Supp. 2d at 828 ("logic does not bear the argument that the Supreme Court necessarily recognizes a general right to carry for self-defense").

83 *Id.* at 832-33.

84 *Kachalsky*, 817 F. Supp. 2d at 265-66 ("*Heller* specifically limited its ruling to interpreting the [Second A]mendment's protection of the right to possess handguns in the home, not the right to possess handguns outside of the home in case of confrontation").

85 *Moore*, 842 F. Supp. 2d at 1103 ("the Supreme Court in *Heller* clearly affirmed the government's power to regulate and restrict possession of firearms outside the home").

86 *Id.*

87 *Piszczatoski*, 840 F. Supp. 2d at 835.

88 *Masciandaro*, 638 F.3d at 470; *Kachalsky*, 817 F. Supp. 2d at 258 ("emphasis on the Second Amendment's protection of the right to keep and bear arms for the purpose of 'self-defense' in the home' permeates the Court's decision and forms the basis for its holding").

89 Joseph Blocher, *The Right Not to Keep or Bear Arms*, 64 Stan. L. Rev. 1, 4 (2012).

90 *Heller*, 554 U.S. at 635.

91 *Kachalsky*, 817 F. Supp. 2d at 258.

92 Blocher, *supra* note 90 at 5.

Maryland provision aims to improve individual security; where it does not, public safety considerations strongly outweigh the hindrance upon an individual's rights.[93] The foregoing also comports with public policy aims by limiting the use of handguns in a rational, steadfast, and generally predictable manner.[94]

Moreover, though *Woollard* decries the legislation as leading to an increase in accidental shootings,[95] the Court ignores the consequences of dismembering the handgun provision. As more permissive regulation is likely to result in an increase in the number of handguns within the State, unintentional injuries and deaths are actually *more* likely to occur under the latter option.[96]

Thus, as the Maryland provision limits handgun access to only those individuals most likely to receive a benefit from their protection, any attempt to alter the challenged legislation will likely result in a net increase in handgun use in the State.[97] Research studies have proven a strong, positive correlation between individual access to handguns and deadly violence; therefore, increasing individual handgun access outside the home is unlikely to confer benefits in excess of the detriment wrought by doing.[98] Consequently, policy initiatives certainly comport with a limited exercise of handgun rights, and it is incredibly unlikely that the Framers would today champion such a deleterious and dangerous exercise of the Second Amendment rights granted to those same citizens that the Constitution simultaneously aspires to protect.[99]

VI. CONCLUSION

To conclude, Maryland's handgun regulation accords with constitutional aims and its shortcomings are insufficient to render it infirm under *Heller*. In undertaking original analysis of the scope of individual handgun rights under the Second Amendment, *Woollard* ignored all of the bedrock concerns of both the Framers and policymakers and erred grotesquely in analyzing the provision, leaving reasonableness, logic, and data in its wake.

93 *Id.* at 53.

94 Mark S. Kaplan & Olga Geling, *Firearm Suicides and Homicides in the United States: Regional Variations and Patterns of Gun Ownership,* 46 Soc. Sci. & Med. 1227, 1232 (1998) (discussing correlation between gun ownership and rates of homicide and suicide amongst multiple demographics).

95 *Woollard*, 863 F. Supp. 2d at 462.

96 Kaplan & Geling, *supra* note 95 at 1232-3; *contra* Lawrence Rosenthal & Joyce Lee Malcom, *McDonald v. Chicago: Which Standard of Scrutiny Should Apply to Gun Control Laws?*, 105 Nw. U.L. Rev. 437, 459 (2011).

97 *See, e.g., People v. Perkins*, 880 N.Y.S.2d 209, 210 (3d Dep't. May 21, 2009) ("New York's licensing requirement remains an acceptable means of regulating the possession of firearms and will not contravene *Heller* so long as it is not enforced in an arbitrary and capricious manner").

98 *See id.*

99 *See* Charles, *supra* note 71 at 1823 ("the question is whether the founders would have accepted the restriction as necessary to prevent "public injury" or as in the interest of the "public good. This question is answered by examining the ideological and philosophical origins of gun control").

About the AUTHOR

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"A ROSE BY ANY OTHER NAME WOULD SMELL AS SWEET": HOW AGGREGATE SENTENCING VIOLATES MILLER V. ALABAMA

by Elizabeth C. Kingston

Introduction

In 2007, sixteen-year-old Rodrigo Caballero, a member of the Lancas gang, opened fire on three teenage boys of the Val Verde Park Gang.[1] One boy was hit in the upper back and the other two were untouched; none of the victims died.[2] As a result of this event, Caballero was sentenced to consecutive term-of-years sentences totaling 110 years to life.[3] Under this sentence, Caballero's first opportunity for parole will occur in 2117, long after Caballero has died.[4]

The United States Supreme Court held in *Miller v. Alabama* that imposing life without parole upon a juvenile without individualized consideration of his youth as a mitigating factor violates the Eighth Amendment.[5] Sentences like Caballero's raise the question of whether the imposition of aggregate term-of-years sentencing—wherein the defendant will likely die in prison before the possibility of parole—similarly violate the Eighth Amendment. The California Supreme Court, ruling on Caballero's case, held that it does.[6] While the terminology employed is different, this type of term-of-years sentence holds the same outcome for the juvenile as was held unconstitutional in *Miller*: life imprisonment without parole following no opportunity for the juvenile to offer his youth as a mitigating circumstance.[7] Essentially, these lengthy aggregate sentences are a type of *de facto* sentence of life imprisonment without parole.[8] Following the *Caballero* ruling, California passed § 3051, which mandates that juveniles who were sentenced to a term-of-years sentence over twenty-five years shall become eligible for parole during his twenty-fifth year of the sentence.[9]

While disagreement exists among the states as to whether extensive aggregate term-of-years sentences violate the Eighth Amendment per the decision in *Miller*,[10] states should recognize the high value the Supreme Court has placed on youth in as a sentencing factor and proactively move to resolve any potential constitutional issues with legislation.[11] Whether states disagree with California's *Caballero* analysis of constitutionality, the California code implements a system that reflects a proper balance of the Supreme Court's emphasis of youth as a mitigating factor with the need for retribution and proper punishment.

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1 *People v. Caballero*, 282 P.3d 291, 293 (Cal. 2012).

2 *Id.*

3 *Id.*

4 *See id.* at 295 (stating that defendant's first opportunity for parole will occur in 110 years).

5 *Miller v. Alabama*, 567 U.S. ___, 132 S. Ct. 2455, 2460 (2012).

6 *Caballero*, 282 P.3d at 295.

7 *See id.* at 294-95.

8 As in Romeo & Juliet, "that which we call a rose / By any other name would smell as sweet." William Shakespeare, Romeo & Juliet 22 (1839). Though states may give a different terminology to these aggregate term-of-years sentences, the name matters not, as the character of the punishment remains the same.

9 Cal. Penal Code § 3051 (West 2015). See *infra* Part III for a more detailed analysis of this statute.

10 *See infra* Part II.

11 *See infra* Part I.

Part I of this Note discusses the development of juvenile sentencing jurisprudence from the ineligibility of juveniles for the death penalty in *Roper v. Simmons*[12] to the recent decision in *Miller v. Alabama*. Part II analyzes how different states have handled the constitutionality question. Part III examines California's § 3051 in greater depth. Finally, Part IV advocates for the adoption of similar legislation across the United States.

I. *Roper* through *Miller*: "Children are Different"

The Eighth Amendment provides: "Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted."[13] Since the 2005 decision in *Roper v. Simmons*,[14] the United States Supreme Court has applied the Eighth Amendment to juvenile sentencing in the criminal justice system to afford juveniles a special status. The Court has consistently identified the unique characteristics of youth and their relationship to culpability to justify conclusions affording juveniles greater constitutional protections than adults.

In *Roper v. Simmons*, the Court declared that the Eighth Amendment prohibited the imposition of the death penalty upon offenders who committed murder as a juvenile.[15] According to the Court's interpretation of the Eighth Amendment, the death penalty must be reserved for only the worst crimes and offenders.[16] Three main differences set juveniles apart from this category of worst offenders.[17] First, juveniles have an "underdeveloped sense of responsibility" which leads to rash decision-making with minimal consideration of consequences.[18] States have reacted to this irresponsibility by enacting categorical activity restrictions on those under eighteen, including military service, voting, and jury service.[19] Second, juveniles are "more vulnerable or susceptible to negative influences and outside pressures, including peer pressure."[20] Finally, juveniles have not yet had the opportunity to develop their character, meaning that "personality traits of juveniles are more transitory, less fixed."[21] These differences cause juveniles to have diminished culpability; this diminished culpability in turn means that capital punishment, when applied to juveniles, does not serve its traditional purposes of retribution and deterrence.[22] Therefore, capital punishment is unconstitutional as applied to juveniles.[23]

Five years later, in *Graham v. Florida*, the Court assessed the applicability of the Eighth Amendment and the special circumstances of minors to sentences of life imprisonment without parole.[24] Recognizing that "developments in psychology and brain science continue to show fundamental differences between juvenile and adult minds," the Court accepted the continuing relevance of the factors discussed in *Roper*.[25] The Court acknowledged that life imprisonment without parole is the "second most severe penalty permitted by law"[26] and affects juveniles more disproportionately than

12 *Roper v. Simmons*, 543 U.S. 551 (2005).

13 U.S. Const. amend. VIII.

14 *Roper*, 543 U.S. 551 (2005).

15 *Id.* at 556-75. The juvenile in question, Simmons, broke into a family home and kidnapped a woman. Then, with the help of a co-conspirator, he bound her hands and feet, wrapped her face in duct tape, and pushed her off of a bridge into the water, where she subsequently drowned. Simmons had proposed this plan and following its completion, he bragged to his friends about it.

16 *Id.* at 568.

17 *Id.* at 568-69.

18 *Id.* at 569 (quoting *Johnson v. Texas*, 509 U.S. 350, 367 (1993)) (internal quotation marks omitted).

19 *Id.*

20 *Id.*

21 *Id.* at 570.

22 *Id.* at 571. Specifically, lesser culpability means that less retribution is deserving. Additionally, considering the immaturity and irresponsibility of juveniles, it is likely that juveniles are also less susceptible to systematic deterrence.

23 *Id.* at 575.

24 *Graham v. Florida*, 560 U.S. 48, 52-55 (2010). Seventeen-year-old Graham, while on probation from a previous armed robbery charge, committed a second armed robbery. Another armed robbery was attempted the same night, but a co-conspirator was shot during the attempt; Graham was detained after dropping the co-conspirator at a hospital. The police officer also discovered three handguns in Graham's vehicle, a violation of his probation.

25 *Id.* at 68.

26 *Id.* at 69 (quoting *Harmelin v. Michigan*, 501 U.S. 957, 960 (1991)) (internal quotation marks omitted).

adults because juveniles will end up serving a greater amount of years and a greater proportion of their lives in prison than adult offenders sentenced to life without parole.[27]

The *Graham* decision also adopted *Roper*'s same reasoning in regards to the pedagogical justifications of retribution and deterrence as applied to juveniles.[28] The Court also concluded that incapacitation did not justify the imposition of life without parole because that argument assumes that juveniles are "incorrigible."[29] Because juveniles can mature and develop, assumption of incorrigibility "improperly denies the juvenile offender a chance to demonstrate growth and maturity."[30] Finally, the pedagogical goal of rehabilitation clearly supports the elimination of life imprisonment without parole because prisoners with such a sentence are rarely, if ever, awarded education or other rehabilitative training.[31] Considering the unique characteristics of juveniles and how they apply to justifications of capital punishment, the Court ruled that mandatory life imprisonment without parole to juveniles accused of non-homicide crimes violates the Constitution when individualized consideration is not given to youth.[32] The state must give these persons "meaningful opportunity to obtain release based on demonstrated maturity and rehabilitation."[33]

Finally, in *Miller v. Alabama*, the Court extended the rule that mandatory juvenile life imprisonment without the possibility of parole is unlawful to homicide crimes as well.[34] The Court again emphasized the characteristics of juveniles established in *Roper*, demonstrating "that children are constitutionally different from adults for purposes of sentencing."[35] While *Graham*'s decision was explicitly limited to the non-homicide facts of the case, in *Miller*, the Court acknowledged that "none of what [*Graham*] said about children . . . is crime-specific."[36] With that in mind, the Court held that mandatory life imprisonment without parole to juveniles accused of homicide crimes also violates the Constitution where individualized consideration is not given to youth.[37] Though the Court did not create a blanket prohibition on all juvenile life imprisonment without parole, it opined that "appropriate occasions for sentencing juveniles to this harshest possible penalty will be uncommon."[38]

THE JUVENILE OFFENDER IS CONSTITUTIONALLY REQUIRED TO HAVE AN OPPORTUNITY TO "DEMONSTRATE GROWTH AND MATURITY" IN SUPPORT OF HIS RELEASE FROM PRISON.

This line of Eighth Amendment cases displays a trend of continued and increasing protections of juveniles in the sentencing process. Because "children are different," the imposition of harsh punishments upon juveniles is more

27 *Id.* at 70.
28 *Id.* at 71-72. *See also supra* note 22.
29 *Id.* at 72.
30 *Id.* at 73.
31 *Id.* at 74. Additionally, juveniles are uniquely receptive to rehabilitative training.
32 *Id.*
33 *Id.* at 75.
34 *See Miller*, 132 S. Ct. at 2460-62. In the first of two cases at bar, defendant Jackson, fourteen, decided to rob a video store with two friends. A friend carried in a sawed-off shotgun and, after an exchange between the store clerk and Jackson wherein the store clerk threatened to call the police, the friend shot and killed the store clerk. In the second case, defendant Miller, also fourteen, visited the victim's trailer with a co-conspirator. There, the three smoked marijuana until the victim fell asleep. Miller attempted to steal the victim's wallet, but when the victim awoke during the act, Miller then hit the victim repeatedly with a baseball bat.. Eventually, the boys decided to burn the trailer, causing the victim to die from smoke inhalation.
35 *Id.* at 2464.
36 *Id.* at 2465.
37 *Id.* at 2469.
38 *Id.* With this distinction in mind, for simplicity's sake, throughout the rest of this Note juvenile life imprisonment without parole without individualized consideration of youth as a mitigating factor may be referred to as mandatory life without parole.

likely to violate the Constitution's ban on cruel and unusual punishment.[39] Specifically, juveniles may no longer be subjected to the death penalty or to a sentence of life imprisonment without parole unless individualized consideration is given to their youth.

II. Contrasting Applications of *Graham* and *Miller*

Miller left unanswered the issue raised in *People v. Caballero*: does the ban on life imprisonment without parole for juveniles also apply to aggregate term-of-years sentences that place parole eligibility outside the natural life expectancy of the juvenile?[40] State and circuit courts remain divided on the answer to this question.

Those that have held lengthy aggregate term-of-years sentences to be unconstitutional have viewed them as essentially *de facto* life imprisonment without parole sentences.[41] Per *Graham*, the juvenile offender is constitutionally required to have an opportunity to "demonstrate growth and maturity" in support of his release from prison.[42] Because of the way that aggregate sentences can be imposed consecutively, in cases like *Caballero* the defendant would not be eligible for parole until long after his natural life has expired.[43] Having a sentence imposed wherein eligibility for parole starts after death is a sentence that is "materially indistinguishable from a life sentence without parole."[44] This type of sentence, like that of life imprisonment without parole, "essentially means denial of hope; it means that good behavior and character improvement are immaterial; it means that whatever the future might hold in store for the mind and spirit of the [juvenile] convict, he will remain in prison for the rest of his days."[45] While each of the term-of-years sentences making up the juvenile offender's sentence may be constitutional on its own, the aggregate sentence—the reality of the situation—violates the mandates of *Graham* and *Miller*.[46]

Those courts that have held lengthy aggregate term-of-years sentences to be constitutional have emphasized the particular, specific language of *Graham* and *Miller* and displayed an overall reluctance to render a class of punishments unconstitutional without explicit guidance from the Supreme Court. In a situation of aggregate sentences, each singular sentence is constitutional on its own.[47] In order to render aggregate sentences unconstitutional, courts would have to make a substantial step to consider the sentences as a whole, not individually.[48] Some courts have refused to do so because *Graham* and *Miller* explicitly limit their holdings to sentences of life without parole.[49] "Nothing in *Graham* even applies to sentences for multiple convictions, as *Graham* conducted no analysis of sentences for multiple convictions and provides no guidance on how to handle such sentences."[50] As Justice Alito claimed in his dissent from Graham, "[n]othing in the Court's opinion affects the imposition of a sentence to a term of years without the possibility of parole."[51] Without express indication from a majority of the Supreme Court, lower courts defer to their legislatures which have established the potential for these lengthy aggregate sentences.[52]

Lower courts' reactions to *Graham* and *Miller* differ according to whether they assign a micro or macro view to the holdings expressed therein. For courts like California's Supreme Court in *Caballero* and the Ninth Circuit Court in *Moore*, lengthy aggregate term-of-years sentences are "materially indistinguishable" from life imprisonment without parole.[53] As such, the holdings of *Miller* and *Graham* should apply to these sentences. For courts like Louisiana's Supreme Court in *Brown*, the Supreme Court was explicit in its terminology limiting

39 *Id.* at 2470.
40 *Caballero*, 282 P.3d 291, 293 (Cal. 2012).
41 *See, e.g.*, *id.* at 294-95.
42 *Graham*, 560 U.S. at 72-73.
43 *See Caballero*, 282 P.3d at 295.
44 *Moore v. Biter*, 725 F.3d 1184, 1191 (9th Cir. 2013).
45 *Brown v. State*, 10 N.E.3d 1, 8 (Ind. 2014) (quoting *Graham*, 560 U.S. at 70) (internal quotation marks omitted).
46 *See id.*
47 *State v. Brown*, 118 So.3d 332, 341-42 (La. 2013).
48 *See, e.g.*, *Moore*, 725 F.3d at 1191.
49 *See Bunch v. Smith*, 685 F.3d 546, 551-52 (6th Cir. 2012).
50 *Brown*, 118 So.3d at 341.
51 *Graham*, 560 U.S. at 124 (Alito, J., dissenting).
52 *See, e.g.*, *id.* at 341-42 ("[A]bsent any further guidance from the United States Supreme Court, we defer to the legislature which has the constitutional authority to authorize such sentences.").
53 *See supra* notes 41-46 and accompanying text.

its holdings to only life imprisonment without parole, and without any indication to the contrary, lower courts should not extend the holding past this limitation.[54]

III. California's Solution: § 3051

In *People v. Caballero*, California held that lengthy aggregate sentencing violates the Eighth Amendment.[55] As a result of this holding, the California legislature sought to remedy this unconstitutional practice within its criminal justice system to give juvenile offenders their constitutionally required "meaningful opportunity for release."[56] Ultimately, the legislature passed § 3051 into law, offering juveniles incarcerated for lengthy aggregate sentences the opportunity to have individualized consideration for parole after twenty-five years.[57]

In the passage of § 3051, as proposed by Senate Bill No. 260, the legislature recognized that fundamental differences exist between juvenile and adult offenders and that these differences diminish the moral culpability of the juvenile offender.[58] The legislature intended for § 3051 to "create a process by which growth and maturity of youthful offenders can be assessed and a meaningful opportunity for release established."[59] In other words, § 3051 was explicitly intended to ensure that the demands of *Miller* were met in the context of aggregate term-of-years sentences.[60]

Under § 3051, any person who was under the age of eighteen when he committed an offense is eligible for parole per the following classification:[61]

Punishment	Year of Incarceration Eligible for Parole
Determinate Sentence	15th Year[62]
Less than 25 Years to Life	20th Year[63]
25 Years to Life	25th Year[64]

Unlike the 110-year waiting period for parole that Caballero originally faced, here, the juvenile offender—given a typical life span—will live to have parole considered. At the parole hearing, the offender will receive a meaningful opportunity for release that considers the age at which the offender committed his crime.[65]

IV. Constitutionality Analysis and Nationwide Application of § 3051

Though some jurisdictions have attempted to limit the application of *Graham* and *Miller* by looking only to the specific text of these opinions and refusing to look at current sentences in the aggregate, other jurisdictions have seen that lengthy term-of-years sentences in the aggregate violate the standards set by these cases.[66] Because parole eligibility does not occur within the natural life span of the juvenile offender, no constitutionally required "meaningful opportunity for release" is given to him.[67] Considering the unconstitutionality of these lengthy aggregate term-of-years sentences, state legislatures should take the initiative to pass legislation similar to that of California, which ensures that offenders receive their "meaningful opportunity for release."[68]

A. Constitutionality Question: *Caballero* has it Correct

Jurisdictions arguing for the constitutionality of lengthy aggregate term-of-years sentences argue that the language in *Graham* and *Miller* focus solely on life imprisonment without parole.[69] While this language in

54 *See supra* notes 47-52 and accompanying text.
55 *Caballero*, 282 P.3d 291, 295 (Cal. 2012).
56 *See Graham*, 560 U.S. 48, 75 (2010).
57 Cal. Penal Code § 3051 (West 2015).
58 S. 260, 2013-2014 Leg., 2013 Reg. Sess. (Cal. 2013) ("The Legislature recognizes that youthfulness both lessens a juvenile's moral culpability and enhances the prospect that, as a youth matures into an adult and neurological development occurs, these individuals can become contributing members of society.").
59 *Id.*
60 *See id.*
61 § 3051(a)(1).
62 § 3051(b)(1).
63 § 3051(b)(2).
64 § 3051(b)(3).
65 § 3051(e).
66 *See supra* Part II.
67 *Graham*, 560 U.S. at 75.
68 *See infra* Section IV.B.
69 *See Graham*, 560 U.S. at 63 ("The instant

Graham is often cited in arguments in support of aggregate sentences,[70] the context of the opinion is discussing the distinction between juveniles convicted of homicide offenses and non-homicide offenses, not life imprisonment without parole and other sentences.[71] Still, *Graham* and *Miller* can be narrowly limited to their facts, which involve only life imprisonment without parole.[72]

The Supreme Court has not yet extended *Graham* and *Miller* outside of the life imprisonment without parole context, but, as *Caballero* and other cases point out, lengthy aggregate term-of-years sentences are *de facto* life imprisonment without parole sentences and the reasoning of *Graham* and *Miller* is therefore certainly applicable.[73] The *Graham* and *Miller* decisions were explicitly predicated on the fact that juveniles receiving life imprisonment without parole sentences will have no hope for release.[74] The bans on life imprisonment without parole imposed by these opinions were an attempt to "avoid[] the perverse consequence in which the lack of maturity that led to an offender's crime is reinforced" by the impossibility of release.[75] Just as a juvenile offender sentenced to life imprisonment without parole, a juvenile offender sentenced to a lengthy aggregate term-of-years sentence "must live the remainder of his life in prison, knowing that he is guaranteed to die in prison regardless of his remorse, reflection, or growth."[76] Life imprisonment without parole imposed upon a juvenile violates the Eighth Amendment because it offers no opportunity for release; likewise, lengthy aggregate term-of-years sentences offer the juvenile offender no opportunity for release.[77]

The only practical difference between these two types of sentences is their titles.[78] In practice, the two sentences operate to mandate the same type of punishment upon the juvenile offender, a punishment that has been ruled unconstitutional by the Court. States should recognize that the reasoning of *Graham* and *Miller* applies to aggregate term-of-years sentences, rendering them unconstitutional, and move to remedy their penal systems accordingly.[79]

EXCESSIVE BAIL SHALL NOT BE REQUIRED, NOR EXCESSIVE FINES IMPOSED, NOR CRUEL AND UNUSUAL PUNISHMENTS INFLICTED.

case concerns only those juvenile offenders sentenced to life without parole solely for a nonhomicide offense.").

70 *E.g.*, *Bunch*, 685 F.3d at 551.

71 *See Graham*, 560 U.S. at 63 ("The State contends that this study's tally is inaccurate because it does not count juvenile offenders who were convicted of both a homicide and a nonhomicide offense . . . .").

72 *See id.* at 52; *Miller v. Alabama*, 132 S. Ct. 2455, 2460 (2012).

73 *See, e.g.*, *Caballero*, 282 P.3d 291, 294-95 (Cal. 2012).

74 *See, e.g.*, *Graham*, 560 U.S. at 79 ("Life in prison without the possibility of parole gives no chance for fulfillment outside prison walls, no chance for reconciliation with society, no hope.").

75 *Id.*

76 *Moore*, 725 F.3d at 1192.

77 *See id.* at 1191-92 ("[S]entence of 254 years is materially indistinguishable from a life sentence without parole because [the defendant] will not be eligible for parole within his lifetime. . . . His sentence results in the same consequences as Graham's sentence.").

78 *See Caballero*, 282 P.3d at 295 (referencing the defendant's 110-year sentence as a "term-of-years sentence that amounts to the functional equivalent of a life without parole sentence").

79 *See infra* Section IV.B. While states could wait until the Supreme Court hears a case on this matter, some assert that the Court's usage of capital punishment jurisprudence to reach the holdings in *Graham* and *Miller* means that the Court will be reluctant to tackle these issues head-on or with cost-effective categorical rules. *See* Sean Craig, *Juvenile Life Without Parole Post*-Miller*: The Long, Treacherous Road Towards a Categorical Rule*, 91 Wash. U. L. Rev. 379, 403-06 (2013). In the meantime, conservative circuits may continue to deny habeas petitions of juveniles advocating that their lengthy aggregate term-of-years sentence violated clearly established federal law of *Graham*, because the Court has not yet explicitly spoken on the mat-

B. Why § 3051 is an Adequate Answer

The imposition of lengthy aggregate term-of-years sentences imposed upon juveniles is an unconstitutional practice because it places parole eligibility outside of the juvenile's lifespan.[80] Implementing a solution to remove the unconstitutionality from juvenile sentencing, however, raises many practical questions. First, at what point is the Eighth Amendment implicated?[81] Clearly, a 110-year sentence as in *Caballero*[82] or a 254-year sentence as in *Moore*[83] do so because the juvenile offender will die prior to parole eligibility. But what about a 60-year sentence? A 40-year sentence? In order to be a *meaningful* opportunity for release, at what phase of the offender's life must parole eligibility begin? Second, can an offender's life be quantified in that manner? While estimates exist as to life expectancy, variations exist based on gender and age, and life expectancy is also significantly shorter in prison.[84] Finally, should there be a bright-line rule or a case-by-case basis for reviewing the offenders' eligibility for parole?

Thus far, § 3051, implemented by the California legislature in response to the *Caballero* ruling, is the most effective solution to these issues.[85] Rather than complex calculations as to the life expectancy of each juvenile offender, § 3051 sets up a tiered system whereby the offender will be eligible for parole in a set amount of years depending on his initial sentence.[86] This system ensures that those offenders who committed the worst crimes—those receiving an original sentence of twenty-five years to life—will also serve the greatest amount of time in prison before becoming parole-eligible.[87] Additionally, the statute only mandates that juvenile offenders will become parole-*eligible* at the designated time and meet with the parole board.[88] It does not mandate any type of release for the offender, only the possibly of release.[89] Therefore, in order to be released, the offender must still satisfy the requirements of that state for being awarded parole.[90] The statute does not functionally affect how the state makes the decision to grant parole, except to ensure that the diminished culpability of youth is taken into account as a factor.[91]

Section 3051 provides a solution to *Graham*'s mandate of providing juvenile offenders with "meaningful opportunity for release" while furthering the pedagogical justifications for punishment. While opponents may argue that offering parole to juvenile offenders sentenced to lengthy term-of-years sentences violates the principles of retribution and incapacitation, those offenders with the worst crimes are, at minimum, still subjected to twenty-five years in prison without parole—the entire period of the juvenile's young adulthood.[92] Additionally, offenders only receive the opportunity for parole: should the circumstances of the crime and the development—or lack thereof—of the offender indicate that the offender should remain in prison, parole will be denied. Just as *Graham* and *Miller* do not require eventual release of a juvenile offender, neither does §

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ter. *See* Bunch, 685 F.3d at 552 (holding that denying the defendant's petition was "further supported by the fact that courts across the country are split over whether *Graham* bars a court from sentencing a juvenile nonhomicide offender to consecutive, fixed terms resulting in an aggregate sentence that exceeds the defendant's life expectancy"). Until the Court has spoken, defendants like the defendant in *Bunch* will receive no relief where it should be mandated.

80 *See supra* Section IV.A.

81 *See Caballero*, 282 P.3d at 295 (requiring that a "state must provide a juvenile offender 'with some *realistic opportunity* to obtain release' from prison during his or her expected lifetime") (emphasis added).

82 *Id.* at 293.

83 *Moore*, 725 F.3d at 1191.

84 Mortality tables exist and are currently utilized by government agencies including the Internal Revenue Service and the Social Security Administration and could be utilized. However, their usage in sentencing may create an avenue for challenge by an offender with health issues. Additionally, it is unclear whether the courts should use estimated mortality based on a person outside of prison, or estimated mortality based on an imprisoned individual in their calculations.

85 *See supra* Part III for more information on § 3051.

86 § 3051(b).

87 § 3051(b)(3).

88 § 3051(c).

89 *Id.*

90 § 3051(c)-(f).

91 § 3051(f)(1).

92 § 3051(b)(3).

3051.[93] As to deterrence, doubt exists as to whether juveniles are truly susceptible to systematic deterrence.[94] If juveniles can be deterred, however, the prospect of being imprisoned without parole for a greater amount of years than the offender has been alive must certainly be considered a deterring factor. Finally, § 3051 clearly supports the goal of rehabilitation.[95] The unique characteristics of juveniles demonstrate that they are receptive to rehabilitation and, considering their stage in character and brain development, more deserving of rehabilitation than adult offenders.[96]

Importantly, § 3051 also does not call for a major alteration of the state's existing penal system. By only providing a system for parole eligibility, the legislation can be implemented more easily than a system calling for the reform of the penal code. Lengthy aggregate term-of-years sentencing occurs where the prosecution proves beyond a reasonable doubt each crime committed and the offender receives for each crime the constitutional, proportionate sentence for that crime. Section 3051 reflects the fact that these individual sentences are legitimate and only pose constitutional issues in the aggregate in that they offer no opportunity for release to the offender. Alternative arrangements wherein the penal code is modified to prevent these sentences from occurring in the first place may place too much discretion in the hands of judges or prosecutors; be costly in that they require a new, original system; or indicate a weakening of the state's dedication to the principles of retribution and incapacitation.

Ultimately, even if the Supreme Court chooses to avoid a decision on the constitutionality of lengthy aggregate term-of-years sentencing upon juveniles, the system proposed by § 3051 simply allows for consideration of parole after a set amount of years, which serves the rehabilitative goal of allowing the release of sufficiently matured and reformed offenders, while not sacrificing retribution and incapacitation. The system is an effective way of implementing the "meaningful opportunity for release" required by *Graham* and *Miller* within the structure of an existing penal system. States legislatures should follow California's lead and implement legislation parallel to § 3051 in their own states, ensuring that juveniles will always be afforded their constitutional right to an opportunity for release.

Conclusion

The imposition of lengthy aggregate term-of-years sentences for juveniles without parole and without individualized consideration of their youth in sentencing violates the Eighth Amendment.[97] California's implementation of a tiered parole eligibility statute, § 3051, represents a workable solution to this issue that takes into consideration the special status that the Supreme Court has consistently afforded juvenile offenders.[98] As such, other states should take the initiative in passing similar legislation in their own jurisdictions.[99]

93 *See Graham*, 560 U.S. at 75. ("A State is not required to guarantee eventual freedom to a juvenile offender . . . .").

94 *See id.* at 72.

95 *See* S. 260, 2013-2014 Leg., 2013 Reg. Sess. (Cal. 2013) ("[A]s a youth matures into an adult and neurological development occurs, these individuals can become contributing members of society.").

96 *See Graham*, 560 U.S. at 73-74.

97 *See supra* Section IV.A.

98 *See supra* Section IV.B.

99 *See supra* Section IV.B.

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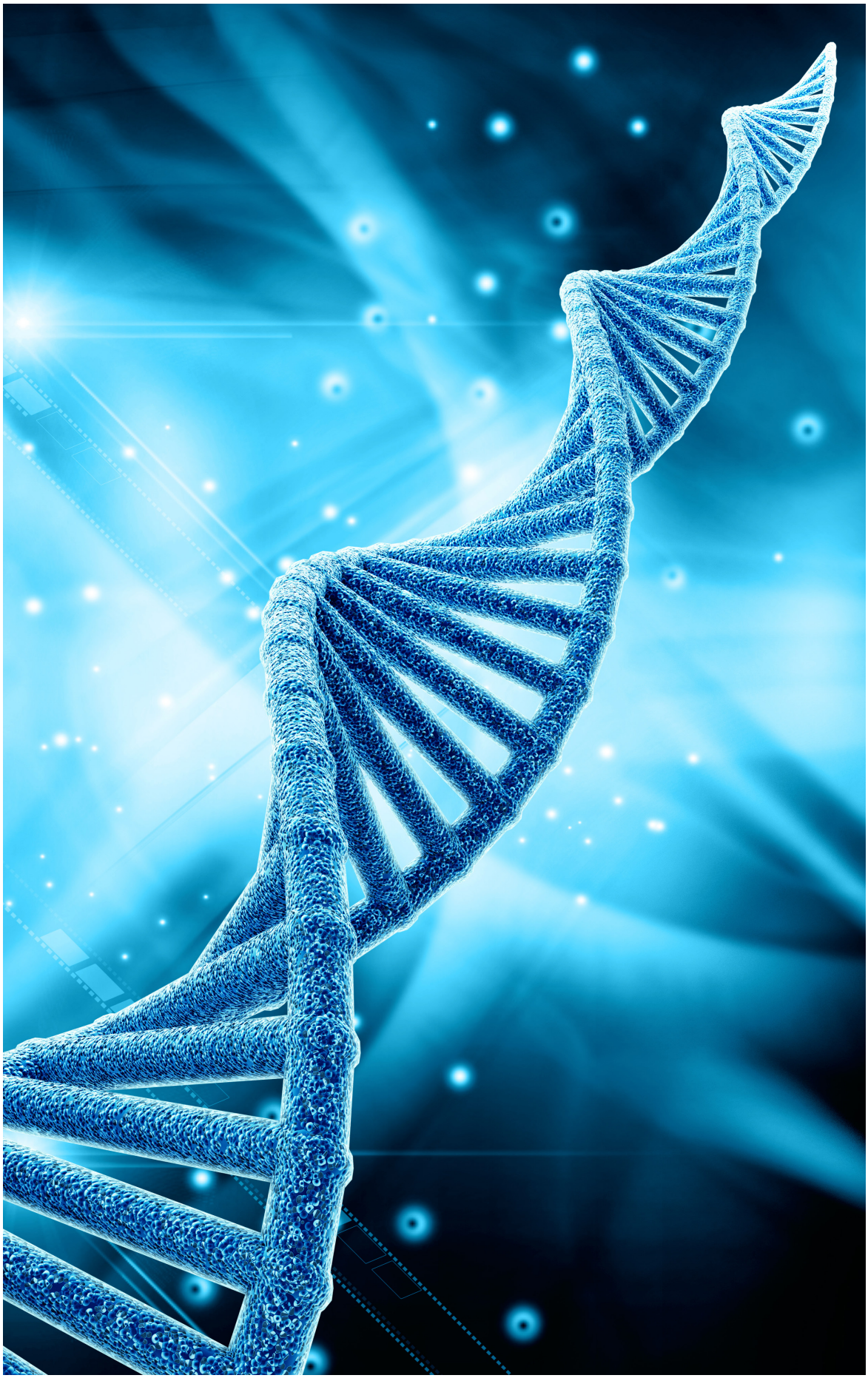


Visualizing DNA Proof

by Nicholas L. Georgakopoulos

Abstract: DNA proof inherently involves the use of probability theory, which is often counterintuitive. Visual depictions of probability theory, however, can clarify the analysis and make it tractable. A DNA hit from a large database is a notoriously difficult probability theory issue, yet the visuals should enable courts and juries to handle it. The *Puckett* facts are an example of a general approach: A search in a large DNA database produces a hit for a cold crime from 1972 San Francisco. Probability theory allows us to process the probabilities that someone else in the database, someone not in the database, or the initial suspect, Baker, may be the perpetrator and obtain the probability of Puckett's guilt. Given the clarity of this analysis, decisions that do not follow it deserve reversal as clearly erroneous.

I. Introduction

A disease test with 90% accuracy is actually accurate less than 10% when the incidence of the disease is 1%. My guess that the prize is behind the second of three doors, followed by the game host giving me the information that the prize is *not* behind the first door (information that appears pointless) has *half* the chance of success of the alternative, switching my selection to door three. These statements, which are borderline nonsensical, are actually true. They capture two of the several paradoxes of probability theory.[2] Criminal trials on the basis of identifications from large DNA databases are not quite as paradoxical but getting our heads around their probability theory is a monumental task.

So limited seems our ability that I have formed the belief that our difficulty with probabilistic analysis is part of human nature, the result of evolution.[3] No surprise

1 Harold R. Woodard Professor of Law, Indiana University Robert H. McKinney School of Law, Indianapolis, ngeorgak@iu.edu. Special thanks go to Barry Nalebuff who engaged our discussion wholeheartedly. I also wish to thank John Donohue, David Kaye, Erin Murphy, Richard Posner, and Eric Talley for helpful comments and Susan David DeMaine for exceptional librarian and editing assistance{.

2 The first is the rare disease or false positive paradox and the second is the three door or Monty Hall Paradox. *See generally* M.H. Rheinfurth and L.W. Howell, *Probability and Statistics in Aerospace Engineering*, NASA, http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19980045313.pdf (April 26, 2015).

3 Perhaps a mutation that facilitated probabilistic analysis appeared in some early hominids, but those went neither to hunt the sabretooth tiger nor to gather fruit in its habitat. Those with the mutation giving a good sense for probability theory, I posit, did not explore new lands, seas, or technologies. They did not write poems and songs about unrequited love. They settled and were selected out of existence by the hunters, the explorers, and the starry-eyed romantics. Perhaps, understanding probability analysis is an evolutionarily unfit trait that

comes from realizing that probability theory developed at about the same time as the calculus because it is about as unnatural for our thinking.[4] The mode of analysis necessary to evaluate DNA evidence from a large database is even more recent, dating from the publication of Bayesian analysis in 1763.[5] The counterintuitive nature of probability theory is especially evident when courts seek to assess the probative value of DNA evidence when the source of that evidence is a large database.[6] DNA databases are enormous and the accuracy of the test presents odds ratios involving numbers well over a million.[7]

Besides the visualizations, the contribution of this analysis is that it proposes the correct analysis when a DNA match arises from the trawl through a large database. The National Research Council has proposed two different adjustments to the random match probability but both have inadequacies, waste information, and do not take advantage of the surrounding environment of the criminal identification.[8]

Part II introduces visualizing with the rare disease test. Part III lays the foundation for visualizing the typical problem presented in *People v. Puckett*,[9] where Puckett was convicted in 2008 for a 1972 rape-murder on the basis of DNA evidence and an investigated suspect, Baker, had not been prosecuted. The generality of the setting is important: The analysis applies in every case of a perpetrator identification through DNA testing of a large database. Part IV visualizes the three possible scenarios that the early suspect was the perpetrator, that the perpetrator was not in the database, and that the perpetrator was in the database. Part V produces the corresponding probability tree, and Part VI does the number crunching to calculate the probability of Puckett's guilt, which turns out to be almost 99%. The conclusion circles back to the treatment of evidence that would allow the courts to perform the probability theory analysis.

II. The Rare Disease Paradox

Suppose a disease infects one percent (1%) of the population, and a relatively accurate test exists for this disease, one that has 90% accuracy. Importantly, accuracy

we cannot have.

4 *See generally* R.R., *The Discovery of Calculus,* Science Reviews 2000 Ltd. (1919), http://www.jstor.org/stable/43427110 (April 26, 2015) (Isaak Newton and Gottfried Leibnitz discovered the calculus simultaneously around 1666 to 1684.).

5 *See generally* Roger North, *The Mathematical Gazette*: *The Mathematical Career of Pierre de Fermat by Michael Sean Mahoney*, Mathematical Association (1974), http://www.jstor.org/stable/3616110 (April 26, 2015) (demonstrating that modern rigorous probability theory dates from correspondence between Pierre de Fermat and Blaise Pascal in 1654); Joseph Berkson, *Bayes' Theorem*, The Annals of Mathematical Statistics (1930), http://www.jstor.org/stable/2957673 (April 26, 2015) (stating that the Bayesian analysis applied to this issue dates from 1763).

6 David H. Kaye, *Rounding up the Usual Suspects: A Legal and Logical Analysis of DNA Trawling Cases*, 87 N. Car. L. Rev. 425 (2009) (offering an eloquent overview of the courts' attempts to deal with large database DNA evidence).

7 *See* Ian Ayres & Barry Nalebuff, *The Rule of Probabilities: A Practical Approach for Applying Bayes' Rule to the Analysis of DNA Evidence*, 67 Stanf. L. Rev. 1447 (2015) (noting the complexity of DNA analyses).

8 The National Research Council has suggested two adjustments. In its first report, it recommended that database searches only use a few of the places (loci) where human DNA has the differences that are used for identification and after the search reveals a suspect, that suspect's identification proceed on the basis of the remaining of the 13 loci that the database holds. For example, the database search uses data of 8 of the loci from the sample at the crime scene to identify a suspect; then, the remaining 5 loci confirm the suspect's identity. The second report suggested that the odds ratio of the test's error be multiplied by the size of the database. For example, if the test errs once in a billion, and the database has one million members the error rate becomes one million in one billion or one in a thousand. *See* Kaye, *supra* note 5, at 436-43; Comm. on DNA Tech. in Forensic Sci., Nat'l Research Council, *DNA Technology in Forensic Science*, 124 (1992) ("NRC I"); Comm. on DNA Forensic Sci.: An Update, Nat'l Research Council, *The Evaluation of Forensic DNA Evidence* 134 (1996) ("NRC II").

9 *People v. Puckett*, No. SCN 201396 (Cal. Super. Ct. Feb. 4, 2008). *See generally* Kaye, *supra* note 5; Ayres & Nalebuff, *supra* note 6 (citing *People v. Puckett*).

"A DISEASE TEST WITH 90% ACCURACY IS ACTUALLY ACCURATE LESS THAN 10% WHEN THE INCIDENCE OF THE DISEASE IS 1%."

means that the test both identifies infected individuals with 90% probability (what some disciplines call sensitivity, true positive rate, or recall rate) and identifies healthy individuals with 90% probability (this aspect of accuracy some disciplines call specificity, or true negative rate), or conversely, fails to identify them as healthy with 10% probability. The paradox appears when we posit that an entirely random individual receives a positive result, a result that flags this person as infected. The usual lay intuition is that this person's infection probability is near 90%, but the actual probability of infection is under 10%. What drives this discrepancy between our intuition and the accurate calculation is that our intuition does not account for false negatives: the frequency with which the test flags healthy subjects as infected. The accurate calculation requires us to realize that because the uninfected population is so large, the proportionately few false positives they will receive are actually many in comparison to the few true positives of the tiny infected fraction of the population.

A visual representation of the paradox illustrates the accurate approach. Consider Figure 1, a grid of one thousand dots, ten of which, 1%, are black and the rest are white. This represents the reality of a population with 1% infected individuals.

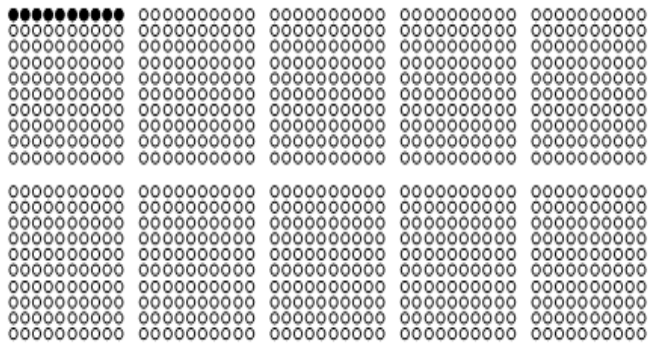


Figure 1: A grid of 1,000 dots, 1% of which are black, that corresponds to the paradox of the rare disease test. This is the true state of the world to which an imperfectly accurate test is applied.

When we apply the test for the rare disease to this population, the result contains errors. The errors take two forms, false negatives and false positives. A false negative occurs when the test of an infected individual (one of the black dots in Figure 1) flags that person as uninfected, as a white dot. A false positive presents an uninfected individual as infected. Figure 2 has randomly flipped the color of one dot in each row of ten, producing a 10% error in the observations of the true state of the dots from Figure 1.

Once we visualize the false positives, their frequency becomes apparent. An individual receives a positive test. How probable is it that this positive result is one of the infected dots versus the false positives?

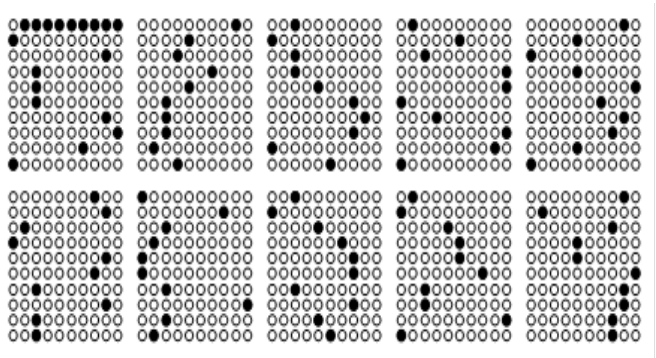
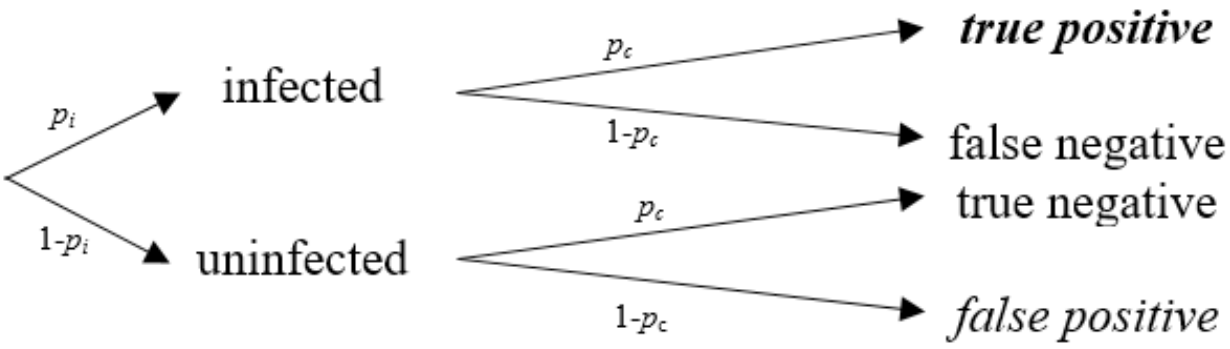


Figure 2: The 10% error rate of the test reverses one dot in each row of ten.

Only nine true positives exist in a sea that includes ninety-nine false positives. Given a black dot, the probability that it is true is nine in one hundred eight (the total number of black dots), under ten percent (actually 8 ⅓ %), despite the test's ninety percent accuracy.

Figure 3: The probability tree that corresponds to the paradox of the rare disease test. The probability of a positive being true has as its denominator the sum of the probability weights that correspond to all positives, the italicized endpoints. Its numerator is the probability weight that corresponds to the true positive, the bolded endpoint.



To confirm the accuracy of this analysis, let us also visualize it as a probability tree, as in Figure 3. To calculate the probability of infection given a positive signal, we must account for all possibilities of observing a positive, which are two, a true positive and a false positive, the italicized endpoints of the probability tree. The denominator must hold the sum of the probability weights that correspond to all positives. In this case, the true positive occurs when a subject is infected ($\boldsymbol{p}_i$ = 1%) and the test is correct ($\boldsymbol{p}_c$ = 90%), for probability weight of .01 × .90 = .009. The false positive occurs when a subject is not infected (1 – $\boldsymbol{p}_i$ = 99%) and the test is false (1 – $\boldsymbol{p}_c$ = 10%), for a probability weight of .99 × .10 = .099. The sum of those two, .108, is the denominator. The numerator is the first of the two, the probability weight that corresponds to a true positive, the endpoint of the probability tree that is in bold (as well as in italics). That is .01 × .90. The result is the same 8⅓% calculated in the graphical approach. Table 1 presents this calculation.

Case:	Calculation:
True Positive:	$p_i p_c$ = .009
False Positive:	(1-p_i) (1-p_c) = .099
Numerator:	.009
Denominator:	.009 + .099 = .108
Probability:	.009/.108 = .083

Table 1: The probability weights of each case of a positive in the rare disease test leading to the calculation of the probability that a positive is a true positive.

The DNA test in *Puckett* is more complex, but the principle is the same. We receive a signal, that is, we see a black dot or a positive DNA test. We need, first, to determine the universe of black dots, true and false. Second, we must calculate the probability that this signal corresponds to a true black dot, i.e., a correctly convicting DNA test. But, just as detectives must start at the crime scene, we must start with the San Francisco of 1972.

III. Visualizing 1972 San Francisco

Over 40 years ago, twenty-two year old Diana Sylvester was found dead in her apartment in San Francisco.[10] She had been raped and murdered a few days before Christmas 1972.

In 2003, California police check a preserved DNA sample against the California database containing felons' DNA. John Puckett is a match. What is the probability that he is guilty? The setting presents a similar paradox to the rare disease case in the sense that the accuracy of the test is very large but applying it to a database of that size would produce a false positive with significant probability.[11]

The first layer of complexity is that the match comes

10 *See* Ayres & Nalebuff, *supra* note 6, at 1467-68; Michael Bobelian, *DNA's Dirty Little Secret*, Washington Monthly (March/April 2010), http://www.washingtonmonthly.com/features/2010/1003.bobelian.html.

11 The error rate of the test according to the prosecution's expert was one in 1,100,000, meaning that one person in 1,100,000 individuals who were not the sources of the DNA would have the same DNA sequence ("random match probability"). Applied to the database that had 338,711 elements produces a random false positive with about 26.5% probability. *See infra* note 12. *See generally* Erin Murphy, *The Art in the Science of DNA: A Layperson's Guide to the Subjectivity Inherent in Forensic DNA Typing*, 58 Emory L.J. 489 (2008) (discussing the mechanics of DNA identification and its excessive purported accuracy including excellent graphics).

from the DNA database, but the suspect must come from the people who were in San Francisco at the time of the crime in 1972 and were of rape-committing age. For simplicity, I will call this the [population of] 1972 San Francisco. Most entries in the database are not from 1972 San Francisco.

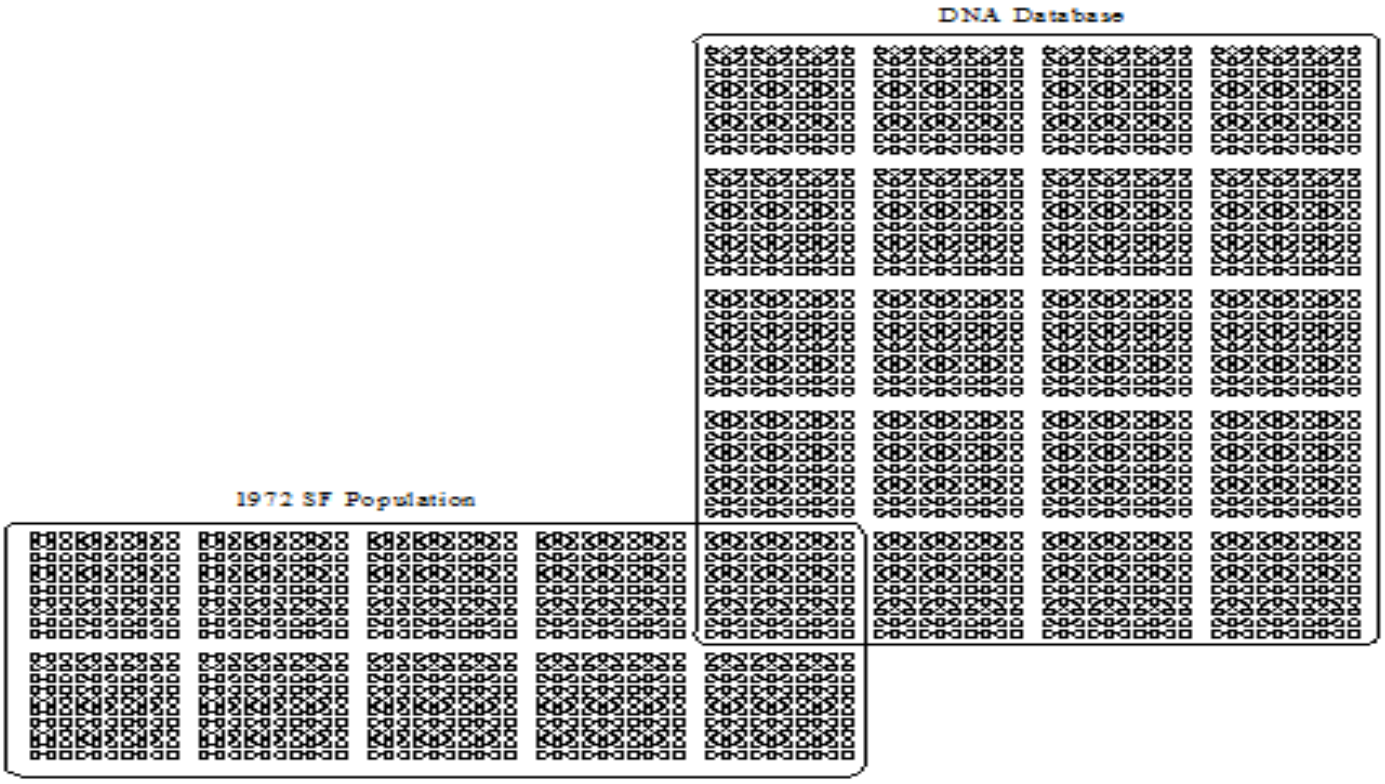
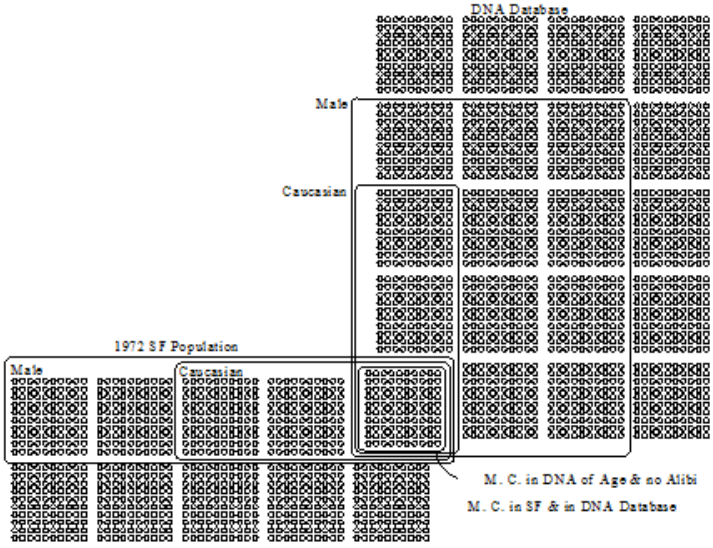


Figure 4: An illustration of the population of 1972 San Francisco (stylized to one thousand) and its intersection with the relevant population of the DNA database (stylized to two thousand). The intersection holds one hundred elements, ten percent of the population of San Francisco and five percent of the database.

For the visualization, let us temporarily reduce the size of the population of 1972 San Francisco to one thousand and the size of the database to two thousand. Suppose that their intersection, their relevant common elements, holds a hundred members. Figure 4 illustrates this overlap.

Assessing the probative power of a DNA test depends on the size of the intersection, the population both in the DNA database and in San Francisco at the time of the crime. One approach is to estimate the fraction of the database that is male, then the fraction that is Caucasian (because a witness saw a Caucasian man in the victim's apartment), and, finally, the fraction that was of rape-committing age in 1972 and has no alibi.[12] Figure 5 illustrates this approach by circling successively smaller fractions of the database. The figure also illustrates the alternative approach to estimating the intersection: by taking successively smaller fractions of the San Francisco population.[13] These correspond to its male fraction, its Caucasian fraction, and, finally, its fraction on the



12 This is, simplified, the approach that Ayres and Nalebuff use. *See generally* Ayres & Nalebuff, *supra* note 6.

13 This is analogous to the simpler estimation based on the Bay area population that Kaye uses. *See generally* Ayres & Nalebuff, *supra* note 6.

IV. The Three Alternatives

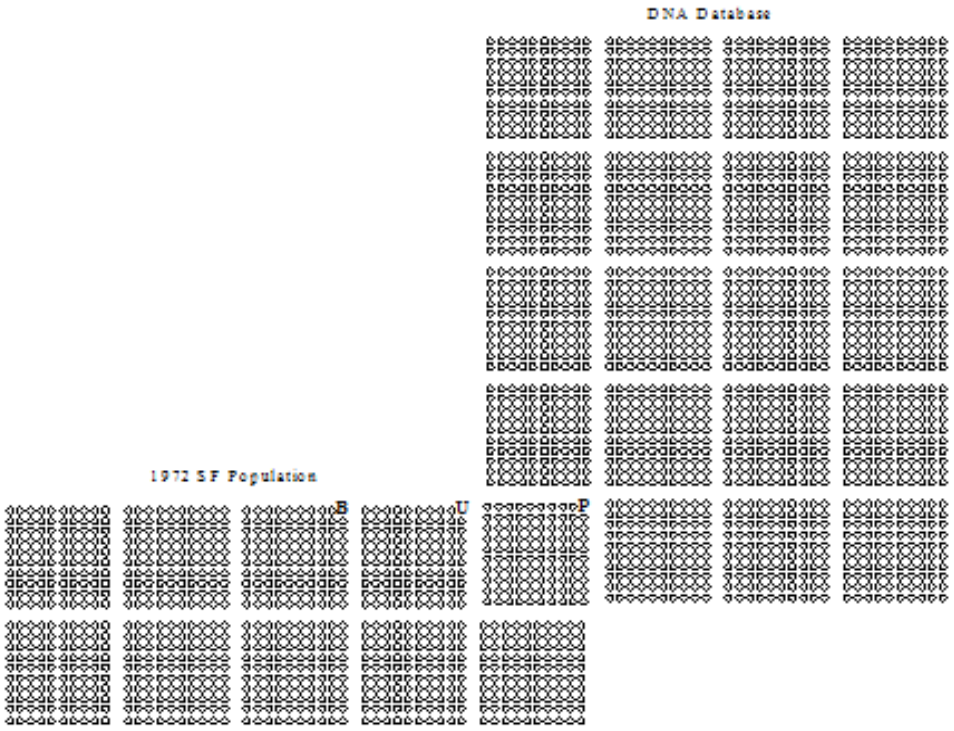


Figure 5: Different approaches to estimating the overlap of the population and the database.

The method of approaching the estimate of the intersection changes the inquiry in intuitive ways. For example, one who starts from the database needs to ask what fraction of the database was of age in 1972. Also, the fraction male and Caucasian has, then, as its denominator the database population. By contrast, one who approaches the estimate from the 1972 San Francisco population has already excluded implicitly individuals who are too young for the crime in 1972 and those with an alibi of being elsewhere. Also, the fractions of males and Caucasians that matter are those of San Francisco, i.e., their denominator is the 1972 population of San Francisco.[14]

In sum, the first issue is estimating the population at the intersection of the population and the database. The next hurdle is to identify the possible alternative perpetrators.

Figure 6: Baker (B), unknown (U), and Puckett (P) as possible positions relative to the intersection of the San Francisco population and the DNA database.

The alternative perpetrators are three: The perpetrator may be Baker, the lead suspect at the time, the perpetrator may be an unknown not in the database, or someone in the database (who most likely is Puckett unless the perpetrator received an unlikely false negative and Puckett a false positive). Baker died in 1978 without leaving a DNA sample.[15] If Baker was the perpetrator, Puckett received a false positive. Similarly, Puckett received a false positive if the perpetrator was an unknown who is not in the database. Finally, the perpetrator may be in the database, in which case we are most likely observing a correct identification of Puckett as the perpetrator but the possibility exists that Puckett is a false positive that arises after the true perpetrator received a false negative.

Figure 6 illustrates these three alternatives by identifying three points with B, U, and P. The location of the three points is significant. The first two, B (Baker), and U (the unknown) lie in that part of the population of San Francisco that corresponds to the subset that is male and Caucasian but outside the subset that overlaps with the DNA database. Puckett's P, on the other hand, is in the intersection.

14 For example, based on census data one could estimate the 1972 San Francisco population at 720 thousand, its Caucasian fraction at 60%, and take the fraction with which Caucasians end in the felons' DNA database at about 2%, to produce an estimate of the intersection of about 720,000 × .6 × .02 = 8,640. This is quite close to the estimate formed by the method of Ayres and Nalebuff of about 8,790, *see infra*, text following note 27. Kaye approximates this intersection by using the 2003 population of the entire Bay area to about 2 million. *See* Kaye, *supra* note 5 at 491. If he were to reduce that to the proportion Caucasian, say 50%, and in the database, 2%, that would yield an intersection of about 50,000, still far larger, but likely near the maximum that the defense could plausibly argue to be reasonable.

15 Ayres & Nalebuff, *supra* note 6 at 1487.

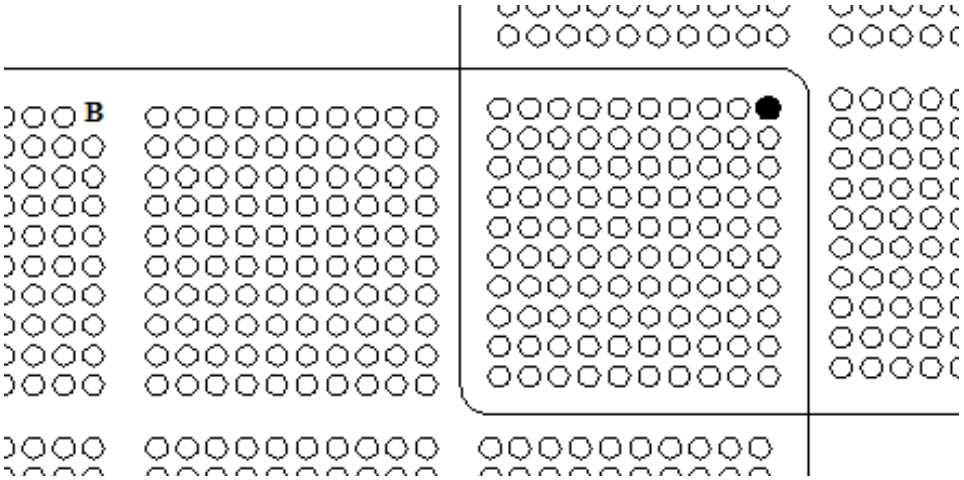


Figure 7: The first possibility is that Baker is the perpetrator and we observe a false positive. The false positive arises in the intersection, the shared elements between the San Francisco population and the DNA database. Baker, identified with a B, is not in that subset but is part of the male and Caucasian subset of the San Francisco population.

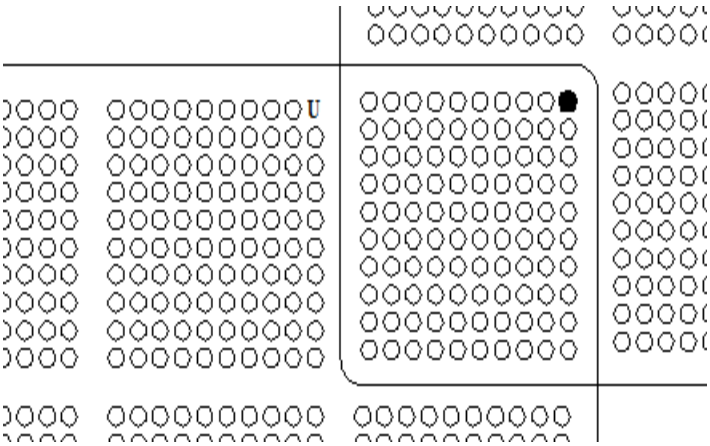


Figure 8: The second possibility is that an unknown individual U, not in the database, committed the crime and we are observing a false positive.

The first possible world is the one where Baker was the perpetrator and we observe a false positive from the DNA database. Figure 7 illustrates this world. One of the hundred points at the intersection of the San Francisco population and the DNA database is black and corresponds to the false positive.[16] We see with a B the location of Baker. While this visualization shows one black dot in a hundred, the corresponding exact calculation comes in Part V, with the probability tree, figure 10.

The second possible world is where the perpetrator was an unknown person who is not in the database. Figure 8, not very different from the previous picture, illustrates this alternative. The U denotes the unknown person who committed the crime. This unknown person is male and Caucasian, but is not in the database. One of the points in the intersection of the population and the database appears black as a false positive.

The third and last alternative is that the perpetrator is in the database. One might think that Puckett corresponds to a single black dot but that is wrong because Puckett's guilt is a virtually certain phenomenon in this third alternative. For the purpose of the illustration, Puckett's point is the entire intersection: If Puckett is guilty we almost always see a true positive with the unlikely exception of a false negative that exonerated the perpetrator, followed by an also unlikely false positive fingering Puckett. To visualize the corresponding almost 100% probability of having identified Puckett in juxtaposition with our prior rare false positives, superimpose the 100% reality on the intersection in those same graphs to see the intersection as mostly black dots. Thereafter we can see the possibility that the true perpetrator experiences the rare false negative by leaving white a dot (or a fraction of one) corresponding to the probability of a false negative.[17]

16 Figure 7 shows one of the hundred dots at the intersection as black. This does not correspond to a test with 99% accuracy but rather to one with accuracy of 99.9899502%, because $99.9899502^{100} = .99$. DNA tests generally have much greater accuracy, with error rates measured as one in billions. In Puckett's case, the naïve position that the positive was merely the result of applying it to the entire database of 338,711 samples gives the impression that the probability of a false positive was the accuracy of the test, 1,099,999/1,100,000, raised to that power, which gives a probability of producing that number of correct negatives was slightly under 73.5% and, therefore, the probability of false positives slightly over 26.5%.

17 In the setting of this visualization letting an entire dot be white strongly overstates the prob-

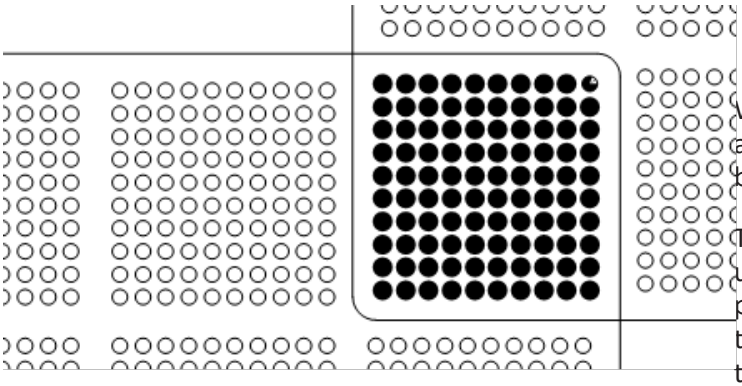


Figure 9: Puckett's guilt occupies most of the probability space, which takes the shape of the intersection of the San Francisco population and the database to be comparable to the alternatives. The only caveat is a false negative, but we can visualize it as a partially white dot, one tenth white for a test with 99.9% accuracy. The fractional filling of about a hundredth of the white space corresponds to a false positive after a false negative.

One possibility still remains. In the case that the true perpetrator is in the database and surprisingly receives a false negative, then the remaining members of the intersection of the population and the database might not all receive true negatives and a false positive may still arise. In terms of the visualization, a very small fraction of the (likely partially) empty dot that signified Puckett's false negative is black. That, however, must be accounted in the probability space of false positives. In other words, the fraction of the dot that can arise as a false positive after the perpetrator receives a false negative should be added to the probability weight that the first two figures produce and which corresponds to false positives.

Unlike the disease setting, where many black dots were associated with false positives, here the odds favor the true positives. The visual, stylized representation of the *Puckett* setting gives us 99.9 true positives versus two and a very small fraction of false positives, while considering (i) the three scenarios as equally likely and (ii) the test to have accuracy that produces ninety nine true negatives in a hundred. The DNA tests are a lot more accurate, the estimated probabilities of the three scenarios are unequal, and the analysis needs to remain sensitive to changes of the estimates of the various probabilities. We need to construct the corresponding probability tree.

V. Probability Tree

While the rare disease test produced a simple probability tree, the trial setting produces a complex one because of the several uncertainties.

The initial branching corresponds to the most general uncertainty, whether a different suspect was the true perpetrator, who in *Puckett* was Baker. This forms the initial branching between the probability p_B that this other (Baker) was the perpetrator and 1-p_B that he was not.[18] If Baker was not the perpetrator, the next uncertainty is whether the perpetrator was in the intersection of the DNA database and the population. The corresponding branching is that the perpetrator was in the database with probability p_d and was not in it with probability 1-p_d.

From (1) the node corresponding to another (Baker) being the perpetrator and from (2) the node corresponding to the perpetrator not being in the database, the subsequent branching is identical because in both cases any positives are false positives and the intersection of the database and the population holds the same number of members, N. The branching is triple, with the first case being that all members receive correct negative tests.[19] The test correctly rejects a DNA match with probability r.[20] Because all members must receive a true

ability of a false negative. In the prior two figures the number of black dots was one, implying that the test's accuracy is 99.9899502% (*See supra* note 12). To be consistent, about one hundredth of a dot should be white here.

18 The same analysis applies if more than one alternative suspect exist. The probability assigned to Baker in this example would need to be adjusted to include the cumulative probability of all other suspects. If the two alternative suspects, for example, were Able and Charlie, with Able having a 20% probability of being the perpetrator and Charlie a 5% probability, the appropriate value of p_B would be .25.

19 A simpler analysis merely bifurcates here between everyone receiving true negatives with probability r^N or not, 1- r^N. This produces the probability tree for one or more positives, however. At sample sizes like this one, where much less than one false positive is expected on average, this calculation is not very different, as table 2 and note 28 show and as Part VII explains. *See infra* note 34.

20 This is the rate of accuracy of the test, also known as the true negative rate or specificity of the

negative, the operation is multiplicative. Say ***r*** were .90, for simplicity. Ninety percent of the time, then, the first test would be negative. The second would also be negative ninety percent of ninety percent of the time or .90 squared, and the third also ninety of ninety of ninety, or .90 cubed. Accordingly, the probability of all ***N*** members receiving correct negative tests is the accuracy of the test ***r*** raised to the power of the number of members of the intersection, for probability r^N.

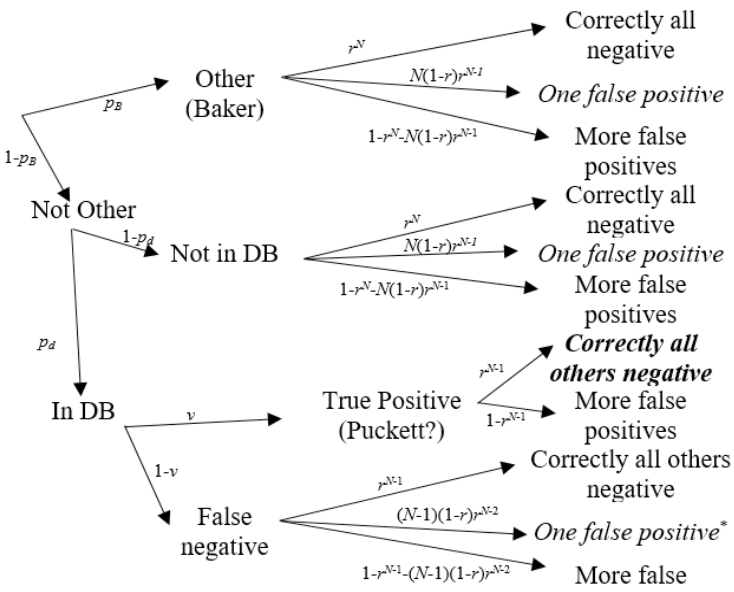


Figure 10: The probability tree for exactly one positive. The italicized endpoints correspond to observations of exactly one positive. The sum of their probability weights forms the denominator of the probability of Puckett's guilt with the numerator being the probability weight that corresponds to the true positive, the bolded endpoint. Ayres and Nalebuff treat the starred false positive in a footnote, justifiably considering it trivial, but the graphical analysis lets it remain in the foreground.

The second branch of the triple branching corresponds to exactly one member of the intersection receiving a false positive. Again, the calculation is easier to see in a simplified setting. Consider three coin-tosses of a biased coin that produces heads with 90% probability. A single tails appears in three sequences of results: tails-heads-heads; heads-tails-heads; and heads-heads-tails. Each sequence has one 10% event (a tails) and two 90% events (two heads) which corresponds to each path having probability $(1-.9).9^2$; keep in mind that if the number of tosses were ***N***, then the number of 90% events would be ***N***-1. The probability that any of the three paths materializes is $3(1-.9).9^{3-1}$. Generalize by replacing 3 with the number of the uncertain events N and .9 with the probability that the DNA test rejects an innocent match, ***r***, to obtain $\boldsymbol{N}(1\boldsymbol{r})\boldsymbol{r}^{\boldsymbol{N}1}$. That is the probability of exactly one false positive. This calculation is also given by the probability density function of the binomial distribution for ***N*** trials with probability of success in each trial 1-***r***.[21] The corresponding intuition has two components. First, one of the ***N*** members must receive a false positive. Since each receives a false positive with probability 1-***r***, this is $\boldsymbol{N}(1-\boldsymbol{r})$. Second, the remaining ***N***-1 members of the intersection must all receive true negatives, which is $\boldsymbol{r}^{\boldsymbol{N}-1}$. The resulting probability that exactly one false positive appears is $\boldsymbol{N}(1\boldsymbol{r})\boldsymbol{r}^{\boldsymbol{N}1}$. The endpoint of this branch appears in italics to signify that it corresponds to the observation of exactly one positive. The sum of the probability weights of all such endpoints forms the denominator of the probability of Puckett's guilt.

The third branch of the triple branching contains the remaining probability weight, one minus the probability of the first two branches. This corresponds to more than one positives appearing and is $1-\boldsymbol{r}^{\boldsymbol{N}}-\boldsymbol{N}(1\boldsymbol{r})\boldsymbol{r}^{\boldsymbol{N}1}$.

From the remaining node that corresponds to the perpetrator being in the database, the first uncertainty is the obvious one, whether the perpetrator will receive the true positive test. Despite that intuition suggests that the probability of a true positive is the same as that of a true negative, ***r***, because different uncertainties may arise, call the probability of a true positive ***v*** (what some disciplines call the true positive rate or sensitivity of the test).[22] Thus, the initial branching will be that

test. Both Kaye and Ayres and Nalebuff focus on the error rate, 1-***r*** in my terms, which would produce slightly different equations, but consistent after one makes the appropriate substitutions.

21 The mathematical knowledge repository www.wolframalpha.com gives this result, for example, if one enters "PDF[BinomialDistribution[n, 1-r], 1]" asking for the value of the probability density function for obtaining one positive from a binomial distribution with n trials with probability of success 1-r.

22 Whereas we have a probabilistic sense of false positives, we do not have a theory of false negatives that is based on the probability theory of DNA analysis because the test describes the DNA, so if both the sample at the crime scene and the sample from the perpetrator come from the same individual, the perpetrator, then the test result will necessarily be a match. Error can arise from sources outside the theory of DNA matching, such as sample contamination through laboratory error. *See* Comm. on DNA Forensic Sci.: An Update, Nat'l

the perpetrator, being in the database, will receive a true positive with probability v, and will receive a false negative the rest of the time, 1v. Additional positives may appear, however, and the probability tree needs to exclude them.[23] This happens by having a branching after the true positive for either all remaining N-1 members of the intersection receiving true negatives, with probability r^{N-1}, or not, with probability 1-r^{N-1}. The first of these endpoints corresponds to observing exactly one positive and, therefore, is in italics. Because this is the true positive, this endpoint is also in bold and its probability weight will be the numerator of the fraction that gives Puckett's guilt.

After a false negative, again a triple branching appears.[24] First, the remaining members of the database, N1, will all produce true negatives with probability r^{N-1}. Second, exactly one false positive will appear, in a way analogous to Baker being the perpetrator but here the intersection is smaller by one member. The single false positive appears with probability (N-1)(r-1)r^{N-2}. This is the case where exactly one positive appears and, therefore, is in italics in the figure. The rest of the time, 1-r^{N-1}-(N-1)(r-1)r^{N-2}, two or more false positives may appear.

Figure 10 displays the probability tree that results from this analysis. The initial node is at the top left and eleven endpoints appear on the right side. The four italicized endpoints correspond to observing one positive and three of those correspond to observing a false positive. The italicized endpoint that is also bold corresponds to observing exactly one positive and that positive being true. The probability of Puckett's guilt has as its denominator the sum of the probability weights that correspond to all four italicized endpoints. The numerator is the true positive, the endpoint that is also bold.

VI. Number Crunching

The return from imagery to arithmetic requires us to put numbers on various parameters. The accuracy (true negative rate or specificity) of the DNA test is r = 1,099,999/1,100,000 = .99999909,[25] the size of the DNA database is D = 338,711,[26] the probability that the suspect is in the database is p_d = .6.[27] The fraction of the database that is male is l = .86 and the fraction Caucasian is c = .284.[28] The fraction of age is g = .425.[29] Taking further fractions of the database, the fraction not incarcerated is n = .67,[30] the fraction without an alibi is o = .5,[31] and the fraction of the database that is not duplicated is s = .75.[32] The prior probability of Baker's guilt is p_B = .3.[33] The true positive rate v is assumed equivalent to the true negative rate, r.

Research Council, *The Evaluation of Forensic DNA Evidence* 134 (1996) ("NRC II") (explaining that it cannot propose such a probability of error):

> There has been much publicity about … errors made by Cellmark in 1988 and 1989, the first years of its operation. Two matching errors were made in comparing 125 test samples, for an error rate of 1.6% in that batch. The causes of the two errors were discovered, and sample-handling procedures were modified to prevent their recurrence. There have been no errors in 450 additional tests through 1994. Clearly, an estimate of 0.35% (2/575) is inappropriate[ly high] as a measure of the chance of error at Cellmark today.
>
> Rather, the implied error rate should be much smaller, especially assuming the recommended safeguards that include repeat testing by different laboratories.

23 The simpler analysis for one or more positives would not need to exclude additional positives and would not have this branching.

24 Again, the simpler analysis for one or more positives would have a bifurcation here, between all N-1 remaining members of the intersection receiving true negatives with probability r^{N-1}, and not, with probability 1-r^{N-1}.

25 *See* Ayres & Nalebuff, *supra* note 6 at 1476. Note that the symbol r here is the accuracy of the test, whereas Ayres and Nalebuff use r to symbolize the error rate, what in my terms is 1-r.

26 *Id*. at 1470.

27 *Id*. at 1479. Up to here the symbols coincide with those of Ayres and Nalebuff but for this they use p rather than p_d. They do not assign symbols to the subsequent variables.

28 *Id*. at 1477.

29 *Id*.

30 *Id*.

31 Ayres & Nalebuff, *supra* note 6 at 1478.

32 *Id*.

33 *Id*. at 1488.

Perpetrator case	Calculation
Other (Baker):	$p_B N(1\text{-}r)r^{N\text{-}1} = .002\ldots$
Not in the DB:	$(1\text{-}p_B)\,(1\text{-}p_d)N(1\text{-}r)r^{N\text{-}1} = .002\ldots$
In DB, true positive:	$(1\text{-}p_B)\,p_d\,v\,r^{N\text{-}1} = .416\ldots$
In DB, false positive:	$(1\text{-}p_B)p_d(1\text{-}v)\,(N\text{-}1)\,(1\text{-}r)r^{N\text{-}2} = .000\ldots$
Numerator:	.416…
Denominator:	.002…+.002…+.416…+.000…=.4212…
Probability:	.416…/.4212…=.98909…

Table 2: The probability weights of each case of a positive and the resulting calculation of the probability of Puckett's guilt.[34]

Applying the successively smaller fractions to the DNA database gives the size of the intersection after all the reductions as $\boldsymbol{N} = \boldsymbol{D} \times \boldsymbol{l} \times \boldsymbol{c} \times \boldsymbol{g} \times \boldsymbol{n} \times \boldsymbol{o} \times \boldsymbol{s}$ = 338,711 × .86 × .284 × .425 × .67 × .5 × .75 = 8,789.72. In the context of the illustrations, this is the size of the overlapping population, the intersection of the population of 1972 San Francisco and the population of the DNA database (instead of 100 that figures 7-9 show).

The remaining calculation depends on whether the setting is one where exactly one positive is observed, as in the probability tree of figure 10, or the simpler analysis of one or more positives per notes 9 to 11. Table 2 shows that calculation (note 21 shows the corresponding entries for the simpler analysis). Each row corresponds to one of the ways of observing a single positive, and shows the formula for its probability weight. The last three rows produce the numerical results of the calculations, the probability of Puckett's guilt, which is 98.9% under these assumptions.[35]

VII. Conclusion

That probability theory is difficult and counterintuitive is not news. Rather, the point is that the graphical approach helps make this counterintuitive and very complex analysis comprehensible and the calculations tractable.

The graphical exposition clarifies the analysis. Some argue that juries should evaluate the probabilistic analysis despite its complexity. Hopefully, courts can help juries to handle this complexity. At the very least, however, if juries are to evaluate probability theories, jurors must see the corresponding probability tree and should receive a spreadsheet in which they can see the effect of changing estimates about the inputs into the calculation.

The key point, however, is that the model for analyzing the *Puckett* setting captures the way that cold-hit DNA identifications will tend to arise. In many cases, some initial suspect may keep some probability of still being the perpetrator, as did Baker. Even if such a suspect does not exist, the model still works by putting the corresponding probability ($\boldsymbol{p_B}$) at zero. This is the appropriate analysis rather than the adjustment of the random match probability that the second report of the national research council proposed in 1996. The development of general approach to evaluating DNA evidence means that decisions, like *Puckett*, that ignore this analysis without having truly different facts should be reversible under the clearly erroneous standard.

34 The entries of the simpler probability tree corresponding to one or more positives (per notes 15 to 18) would be as follows: Baker: $p_B(1\text{-}r^N)$; Not in DB: $(1\text{-}p_B)\,(1\text{-}p_d)\,(1\text{-}r^N)$; In DB true positive: $(1\text{-}p_B)\,p_d\,v$; In DB false positive: $(1\text{-}p_B)p_d(1\text{-}v)\,(1\text{-}r^{N\text{-}1})$; numerator: 0.419…; denominator: 0.4246…; probability: .98913… The intuition behind the difference of the two analyses appears if we let $\boldsymbol{N}$ go to infinity. Then, the one or more analysis converges to the probability of the perpetrator not being Baker, being in the database, and receiving a true positive, $(1\text{-}\boldsymbol{p_B})\,\boldsymbol{p_d v}$, as many positives appear and one is likely to be the perpetrator. By contrast, the probability of guilt under the exactly one analysis approaches zero, as more positives become exceedingly likely and seeing only one becomes unlikely regardless of guilt.

Spreadsheets of this model are available; Excel: http://tinyurl.com/n4nxdhu; Google docs: http://tinyurl.com/mwr5nna.

35 *See* Ayres & Nalebuff, 67 Stanf. L. Rev. at 1488 (showing the exact same calculation.)

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ADULT RAPE VICTIMS SHOULD BE PERMITTED TO TESTIFY BY CLOSED-CIRCUIT TELEVISION

By Matthew Marthaler

I. **Introduction**

April is eighteen years old and excited to start her life by going to college. However, in her first week of school, she is raped by one of the students – just like 10,237 other female college students aged 18-24 who are raped annually each year in the United States (along with the 7,864 students who are attempted to be raped).[1] The man accused of rape is set to stand trial next week. April's psychologist examined her and explained to the court that she would suffer serious emotional distress and thus be unable to communicate coherently if she were forced to testify in the presence of the defendant. However, the psychologist explains that April would be able to testify over two-way closed-circuit television (CCTV) with both attorneys and her doctor in the room with her, while the judge, jury, and the defendant watched from another room.

This is not an isolated case, as in 2012, there were 346,830 victims of rape/sexual assault.[2] Whether the victim may use CCTV has not been determined by the Courts and is still a lingering issue. CCTV is a procedure where the victim, defense attorney, and prosecutor are in a separate room from the defendant while the victim testifies under oath to direct and cross examination as if the victim were in the courtroom.[3] The responses are then contemporaneously transmitted to the courtroom for the judge, jury, and defendant.[4] One-way CCTV has one camera and monitor so that the defendant can see the victim, but the victim cannot see the defendant. Two-way CCTV has two cameras and monitors so that the victim and defendant can see each other on the monitor. There is little guidance from the courts on how to set up CCTV. One court found that the monitor does not need to be directly in the victim's field of vision while he or she testifies.[5] Another court held that the cameras need to be positioned so that the jury can see the victim's face at all times and the victim can see the face of the jurors, defendant, and questioner as he or she testifies.[6] Finally, the Ninth Circuit has held that, "the defendant must be able to communicate with his or her attorney instantly during the deposition."[7]

1 Sofi Sinozich & Lynn Langton, U.S. Dep't of Justice, *Rape and Sexual Assault Victimization Among College-Age Females*, 1995-2013, at 4 (2014), http://www.bjs.gov/content/pub/pdf/rsavcaf9513.pdf.

2 Jennifer L. Truman & Lynn Langton, U.S. Dep't of Justice, *Criminal Victimization,* 2013, at 2 (2014), http://www.bjs.gov/content/pub/pdf/cv13.pdf.

3 Nat'l Dist. Attorney's Ass'n, Closed-Circuit Television Statutes, 1 (2012), http://www.ndaa.org/pdf/CCTV%20(2012).pdf.

4 *Id.*

5 *United States v. Etimani*, 328 F.3d 493, 501 (9th Cir. 2003).

6 *United States v. Mostafa*, 14 F. Supp. 3d 515, 525 (S.D.N.Y. 2014).

7 *United States v. Miguel*, 111 F.3d 666, 670

In this paper, I will discuss the Confrontation Clause of the Sixth Amendment of the United States Constitution and how it applies to the use of CCTV currently. I will then explain how the use of CCTV should be allowed for adults who are rape victims. In conclusion, I will construct and propose a new rule regarding televised testimony of adult rape victims.

II. **The Confrontation Clause**

The Confrontation Clause of the Sixth Amendment, made applicable to the States through the Fourteenth Amendment, provides: "In all criminal prosecutions, the accused shall enjoy the right . . . to be confronted with the witnesses against him . . . ."[8] This clause has been interpreted in two different ways, with the most recent interpretation in 2004. The first interpretation dealt with applying the clause to hearsay testimony in the 1980 Supreme Court case of *Ohio v. Roberts*.[9] Here, the Court ruled "that the Confrontation Clause reflects a preference for face-to-face confrontation at trial."[10] In conformance with this preference for face-to face confrontation, the Court found that if there is a request for non-face-to-face testimony, there first needs to be a necessity.[11] This requires the counsel to explain the unavailability of the declarant and show a good-faith, diligent effort to secure the live testimony of the hearsay declarant.[12] After a witness is shown to be unavailable, then the hearsay must have particularized guarantees of trustworthiness and an indicia of reliability.[13] The Court determined that this reliability could be inferred where the evidence falls within a firmly rooted hearsay exception.[14] Hence, according to the Court in *Roberts*, to allow hearsay evidence, there needs to be (1) a showing of unavailability and (2) the statement must bear adequate indicia of reliability.[15]

In the 2004 case of *Crawford v. Washington*, however, the Supreme Court decided to scrap the unclear standard of reliability.[16] In *Crawford*, the Court looked into the history to determine how the Confrontation Clause should be applied. The Court used a Supreme Court case from 1895, *Mattox v. United States*, to state that the Confrontation Clause was meant to prevent depositions or ex parte affidavits from being used against the prisoner instead of cross-examination.[17] Cases before *Roberts* conformed to this holding that "prior trial or preliminary hearing *testimony* is admissible only if the defendant had an adequate opportunity to cross-examine."[18] The Court then found that the *Roberts* test was too broad because it applied the same mode of analysis whether or not the hearsay consisted of ex parte testimony and that it was too narrow because it admitted some ex parte testimony based on reliability.[19] As a result, the Court

(9th Cir. 1997).

8 U.S. Const. amend. VI; *see also Schaal v. Gammon*, 233 F.3d 1103, 1106 (8th Cir. 2000).

9 *See generally Ohio v. Roberts*, 448 U.S. 56 (1980).

10 *Id.* at 63.

11 *See id.* at 65.

12 *See id.*; *see generally* Graham C. Lilly et al., Principles of Evidence 267-77 (West ed., 6th ed. 2012).

13 *See Roberts*, 448 U.S. at 65-66 (citing *Mancusi v. Stubbs*, 408 U.S. 204, 213 (1972)); *Snyder v. Massachusetts*, 291 U.S. 97, 107 (1934).

14 *Roberts*, 448 U.S. at 66.

15 *See id*.

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

17 *See generally id.* at 50-60; *Mattox v. United States*, 156 U.S. 237, 242 (1895).

18 *Crawford*, 541 U.S. at 57 (emphasis added).

19 *See id.* at 60.

established a new test that followed the history of the Confrontation Clause. This new test states that if ex parte evidence is non-testimonial, then it may properly be excluded within hearsay laws.[20] Moreover, if the ex parte evidence is testimonial, then it may not be introduced unless (1) the witness is shown to be unavailable and (2) the accused has had an opportunity for cross-examination.[21] However, the question of what a testimonial statement is was not defined.[22] Even though a testimonial statement was not defined, Justice Scalia's guidance in the *Crawford* opinion, the Supreme Court's opinion in *Davis v. Washington*, and the Central District of California's opinion in *Howard v. Felker* show that a testimonial statement is one that is directed toward proving a fact, and not just a casual remark.[23]

The importance of cross-examination to the adversarial process in a criminal trial cannot be overstated.[24] To be sure, the Confrontation Clause's main goal was to ensure the reliability of evidence.[25] However, the Confrontation Clause is now seen as a "procedural rather than a substantive guarantee."[26] The Clause does not command that the evidence be reliable, but that the reliability of the evidence be assessed by testing, through the crucible of cross-examination.[27] The Clause thus ensures that the witness will give his or her testimony under oath because the witness will see that lying while under oath could result in jail time.[28] The clause also forces the witness to submit to cross-examination, which is a great tool in determining the truth and getting reliable evidence.[29]

III. The Confrontation Clause and the Use of CCTV for Child Victims of Sexual Assault

When it comes to allowing CCTV in cases where children are victims of sexual assault, two main cases, *Coy v. Iowa* and *Maryland v. Craig,* determined the applicability of the Confrontation Clause.[30] In *Coy*, which was decided prior to *Crawford*, the Court determined that the Confrontation Clause grants a criminal defendant the right to be confronted with the witnesses who are testifying against him.[31] This right to confront meant a right to a face-to-face encounter between the witness and the accused.[32] Importantly though, the Court found that the rights within the Confrontation Clause are not absolute and may give way when necessary to further an important public policy.[33] In *Coy*, two thirteen-year-old girls were camping in their backyard when an assailant entered their tent.[34] At trial, the State asked for CCTV or a screen to be placed between the appellant and witness, the latter of which the trial Court agreed to.[35] However, the Supreme Court held that there were no individualized findings that it was necessary for the children to receive special protection from the

20 *See id.* at 68.

21 *See id.*; *see Williams v. Illinois*, 132 S. Ct 2221, 2248 (2012); *see Weedman v. Hartley*, No. 08–cv–01740–CMA, 2010 WL 2593946, at *15 (D. Colo. June 23, 2010); *see also Davis v. Washington*, 547 U.S. 813, 823 (2006) (finding that the Confrontation Clause applies only to testimonial hearsay); *see* Graham, *supra* note 12, at 272.

22 *See Crawford*, 541 U.S. at 68.

23 *See id.* at 51; *see Davis*, 547 U.S. at 824; *see Howard v. Felker*, No. CV 08–4135 MWF (JC), 2013 WL 1912476, at *11 (C.D. Cal. March 14, 2013).

24 *Dearstyne v. Mazzuca*, 48 F. Supp. 3d 222, 316 (N.D.N.Y. 2011).

25 *Crawford*, 541 U.S. at 61; *see Maryland v. Craig*, 497 U.S. 836, 845 (1990); *United States v. West*, No. 08 CR 669, 2010 WL 3324886, at *1 (N.D. Ill. August 18, 2010); *see People v. Williams*, 125 Cal. Rptr. 2d 884, 891 (Cal. Ct. App. 2002).

26 *See Crawford*, 541 U.S. at 61; *Haliym v. Mitchell*, 492 F.3d 680, 701 (6th Cir. 2007).

27 *See Crawford*, 541 U.S. at 61; *see Haliym*, 492 F.3d at 701; *see also Mendez v. Ochoa*, No. CV 12–2122 JAK (JC), 2015 WL 1809140, at *6 (C.D. Cal. April 17, 2015) (finding that the purpose of confrontation is to secure for the opponent the opportunity of cross-examination).

28 *See Haliym*, 492 F.3d at 701.

29 *See id.*

30 *See generally Craig*, 497 U.S. 836 (1990); *Coy v. Iowa*, 487 U.S. 1012 (1988).

31 *See Coy*, 497 U.S. at 1015.

32 *See id.* at 1016-18.

33 *See id.* at 1020-21.

34 *See id.* at 1014.

35 *See id.*

defendant and thus, the defendant's right to face-to-face confrontation was violated.[36] As a result, the question of whether there were any exceptions that could outweigh the Confrontation Clause interest was left for another day.[37]

Two years after *Coy*, the Supreme Court answered this question in *Maryland v. Craig*. In this case, Craig was charged and was tried for sexual abuse of a six-year-old child.[38] The state asked for and was allowed one-way CCTV because the child would suffer emotional distress if required to testify in the courtroom.[39] This was appealed for violation of the Confrontation Clause, but the Court ruled that there was no violation.[40] The Court reasoned that although *Coy* held that "the Confrontation Clause guarantees the defendant a face-to-face meeting with witnesses appearing before the trier of fact," there was never a guarantee for criminal defendants to have an absolute right to a face-to-face meeting with the witness.[41] Furthermore, the Court determined that the central concern of the Confrontation Clause is to, "ensure the reliability of the evidence against a criminal defendant by subjecting it to rigorous testing in the context of an adversary proceeding before the trier of fact."[42] Applying this, *Craig* set forth a two-part test for determining whether an exception to the Confrontation Clause's face-to-face requirement is warranted: "A defendant's right to confront accusatory witnesses may be satisfied absent a physical, face-to-face confrontation at trial only where (1) denial of such confrontation is necessary to further an important public policy and (2) only where the reliability of the testimony is otherwise assured."[43]

However, *Craig* was decided before *Crawford* and the issue is thus whether *Crawford* changes the test in *Craig*. *Crawford* plays a role on hearsay evidence, but the Supreme Court has not has addressed whether the decision in *Crawford* impacts the holding in *Craig* and the use of CCTV. Many courts after *Crawford*, however, still look into reliability when determining if CCTV should be used.[44] Other courts have ruled that *Crawford* does not overrule *Craig*.[45] Even evidence hornbooks state that *Crawford* does not overrule *Craig*.[46] If the Supreme Court were to apply *Crawford*, maybe they would use a middle-ground as opposed to eliminating the reliability test. This test would allow CCTV if denial of face-to-face confrontation was necessary to further an important public policy, the defendant was given an opportunity to cross-examine the witness, the witness testified under oath, and the fact-finder had an opportunity to observe the witness's demeanor.[47] Nonetheless, since there has been no Supreme Court ruling and many cases follow *Craig*, this memorandum will proceed using the test formulated in *Craig* without affect from *Crawford*. Hence, the right to face-to-face confrontation under the Clause is not absolute.[48] "This face-to-face confrontation can be denied only where the trial court finds (1) that there is an important public policy that will be served by denying physical

36 *See id.* at 1021-22.
37 *See Coy*, 497 U.S. at 1021.
38 *Craig*, 497 U.S. at 840.
39 *Id.* at 841.
40 *Id.* at 840-43, 849-50.
41 *Id.* at 844.
42 *Craig*, 497 U.S. at 845; *see Schaal v. Gammon*, 233 F.3d 1103, 1106 (8th Cir. 2000).
43 *Craig*, 497 U.S. at 850.
44 *See e.g.*, *United States v. De Jesus-Castenada*, 705 F.3d 1117, 1120-21 (9th Cir. 2013); *United States v. Mostafa*, 14 F. Supp. 3d 515, 518-19 (S.D.N.Y. 2014).
45 *See State v. Blanchette*, 134 P.3d 19, 29 (Kan. Ct. App. 2006); *see State v. Griffin*, 202 S.W.3d 670, 680-81 (Mo. Ct. App. 2006); *see State v. Henriod*, 131 P.3d 232, 237 (Utah 2006).
46 *See* Graham, *supra* note 12, at 269 (stating that the decision in *Craig* remains largely unaffected by the *Crawford* decision).
47 *See* Marc Chase McAllister, *Two-Way Video Trial Testimony and the Confrontation Clause: Fashioning a Better Craig Test in the Light of Crawford*, 34 Fla. St. U. L. Rev. 835, 870-71 (2007).
48 *See, e.g.*, *Hood v. Uchtman*, 414 F.3d 736, 738 (7th Cir. 2005); *United States v. Gigante*, 166 F.3d 75, 80 (2nd Cir. 1999); *LaBayre v. Iowa*, 97 F.3d 1061, 1062 (8th Cir. 1996); *United States v. Ganadonegro*, No. CR 09–0312 JB, 2012 WL 400727, at *10 (D.N.M. January 23, 2012).

confrontation, (2) that such denial is necessary to further that policy, and (3) that other measures will ensure the reliability of the testimony."[49] This is the case for one-way as well as two-way testimony.[50]

A. *Important Public Policy for Child Victims of Sexual Assault*

Denying face-to-face controversy must further an important public policy.[51] *Craig* did not give a framework on to how to determine a public policy and only followed precedent of prior cases which found that "the protection of minor victims of sex crimes from further trauma and embarrassment" is a "compelling" one.[52] However, the Court did state that if a number of states recognize the public policy, then it may be an important policy.[53]

B. *Necessity for Child Victims of Sexual Assault*

Denial of face-to-face controversy must be necessary to further the public policy.[54] The finding of necessity needs to be case specific where the court hears evidence to determine whether use of CCTV is necessary to protect the particular public policy. Thus, for the welfare of children public policy, there needs to be case specific evidence that CCTV will protect children from further traumatization.[55] For the welfare exception, the court must also find that the child would be traumatized by testifying in the presence of the defendant[56] and that the distress is not de minimus.[57]

C. *Reliability for Child Victims of Sexual Assault*

The reliability of the testimony must be otherwise assured in the absence of face-to-face confrontation.[58] For this prong, reliability is assured by providing the defendant with the right of cross-examination; by requiring the witness to give statements under oath; and by providing the jury, judge, and defendant an opportunity to assess the demeanor and, hence, the credibility of the witness.[59] Accordingly, since the child witness in *Craig* testified under oath, was subject to cross-examination, and was observed for demeanor, the reliability of the evidence was assured.[60]

IV. 18 U.S.C. § 3509 – The Victims of Child Abuse Act

"Spurred by *Craig*, Congress passed the

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49 *See e.g.*, *United States v. Fee*, 491 Fed. Appx. 151, 158 (11th Cir. 2012); *Harrell v. Butterworth*, 251 F.3d 926, 930 (11th Cir. 2001); *United States v. McCollum*, 58 M.J. 323, 329 (C.A.A.F. 2003).

50 *See e.g.*, *United States v. Yates*, 438 F.3d 1307, 1313 (11th Cir. 2006); *United States v. Etimani*, 328 F.3d 493, 499 (9th Cir. 2003).

51 *See Craig*, 497 U.S. at 850.

52 *Id.* at 852 (citing *Globe Newspaper Co. v. Superior Court*, 457 U.S. 596, 607 (1982)).

53 J. Steven Beckett & Steven D. Stennett, *The Elder Witness - The Admissibility of Closed Circuit Television Testimony after Maryland v. Craig*, 7 Elder L.J. 313, 329 (1999) (citing *Craig*, 497 U.S. at 853).

54 *See Fee*, 491 Fed. Appx. at 158.

55 *See Craig*, 497 U.S. at 838; *See United States v. Turning Bear*, 357 F.3d 730, 736 (8th Cir. 2004).

56 *See Craig*, 497 U.S. at 856; s*ee United States v. Moses*, 137 F.3d 894, 897-900 (6th Cir. 1998); *see United States v. Garcia*, 7 F.3d 885, 887-88 (9th Cir. 1993).

57 *See Craig*, 497 U.S. at 856; *see also* Susan Howell Evans, Note, *Criminal Procedure–Closed Circuit Television in Child Sexual Abuse Cases: Keeping the Balance Between Realism and Idealism–Maryland v. Craig*, 26 Wake Forest L. Rev. 471, 495 (1991) (noting that this third prong of the *Craig* rule is most problematic because the Court did not try to set guidelines "as to what degree of trauma constitutes more than '*de minimis*'").

58 *See e.g.*, *Craig*, 497 U.S. at 850 (finding that the denial of confrontation must further an important public policy to allow the court to rely on testimony other than face-to-face testimony); *De Jesus-Casteneda*, 705 F.3d at 1120 (noting that courts should consider state interests and reliability)

59 *See Craig*, 497 U.S. at 845-46; *Johnson v. Warden, Lebanon Corr. Inst.*, No. 1:13–cv–82, 2014 WL 4829592, at *22 (S.D. Ohio Sept. 29, 2014).

60 *See Craig*, 497 U.S. at 857.

Victims of Child Abuse Act in 1990."[61] Congress wanted to protect the child victim from the harm that could potentially occur from testifying in front of his or her abuser.[62] The act allows the use of CCTV for those under the age of eighteen who are victims of a crime of physical abuse, sexual abuse, or other exploitation.[63] The CCTV testimony may be used only after the court determines that (1) the child is unable to testify in open court in the presence of the defendant because of fear, (2) there is a substantial likelihood of emotional trauma from testifying (as established by an expert), (3) the child suffers from a mental or other infirmity, or (4) the

defendant or defense counsel's conduct caused the child to be unable to continue testifying.[64] Thus, the act follows the line of reasoning used for *Craig* and even adds different public policies that allow for the use of CCTV besides protection against emotional trauma. These policies come in the form of protecting the well-being of the witness from intimidation and protecting children who suffer mental infirmities.

V. Allowing Adult Rape Victims to Testify by Means of CCTV

Craig and many of the cases that followed it, as well as 18 U.S.C. § 3509, deal solely with allowing children to use CCTV. Although the Supreme Court has never answered the question of whether adults can use CCTV based on the *Craig* standard, it recognizes that this question is an important one.[65] However, *Craig*'s references to "an important public policy" can be applied to more policies besides protecting children from emotional trauma. Even the statute can be helpful as it can be used to show that other policies are important, such as not allowing for intimidation. Hence, this section will first discuss whether adult witnesses can use CCTV at all based on the framework of *Craig* (where public policy, necessity, and reliability is needed to pass the Confrontation Clause) and 18 U.S.C. § 3509. It will then detail why adults should be able to use CCTV if they are rape victims.

A. *Should adults even be able to use CCTV at all?*

Before this paper discusses if adults should be able to use CCTV when they are rape victims, it must first be determined if adults may use CCTV. The main question to ask is whether there is a sufficiently important public policy which is furthered by allowing adults to use CCTV. Nowhere does *Craig* suggest that an important public policy is limited to child witnesses or that the public policy must be codified.[66] In fact, multiple state and federal courts have read *Craig's* references to "an important public policy" as suggesting that the general rule which allows for non-face-to-face confrontation is not limited to protecting child victims of sexual offenses from the trauma of testifying in a defendant's presence.[67] Hence, the Confrontation Clause is not

61 *See* Virginia M. Kendall & T. Markus Funk, *Child Exploitation And Trafficking: Examining the Global Challenges and U.S. Responses*, 247 (2006).

62 *See id.*

63 18 U.S.C § 3509(a)(2), (b)(1).

64 18 U.S.C § 3509(b)(1)(B); Scott M. Smith, Annotation, *Validity, Construction, and Application of Child Victims' and Child Witnesses' Rights Statute (18 U.S.C.A. § 3509)*, 121 A.L.R. FED. 631, §2 (1994).

65 *See Wrotten v. New York*, 560 U.S. 959, 959 (2010) (denying certiorari on procedural grounds).

66 *See People v. Wrotten*, 923 N.E.2d 1099, 1103 (N.Y. 2009).

67 *See Johnson v. Warden, Lebanon Corr. Inst.*, No. 1:13-cv-82, 2014 WL 4829592, at *16 (S.D. Ohio Sept. 29, 2014).

violated if an important public policy for an adult to use CCTV is identified and the other safeguards of *Craig* are followed.[68] The finding of a public policy is not set at an exceptionally high threshold.[69] Sufficient public policy exists when the policy is at least comparable to the State's interest in protecting the victims of child abuse from further injury.[70] Once a policy is found, then the denial of face-to-face confrontation needs to meet the other elements established in *Craig*. This includes that the denial be necessary to promote an important public policy and the testimony be reliable. This section will first discuss the different important public polices for adult witnesses to deny direct confrontation and then explain how necessity and reliability can be met for CCTV.

i. Policies for adults who are not rape victims that have been held to be sufficient for adults to use CCTV.

Many courts have been able to find different public policies that meet the threshold of being at least comparable to the State's interest in protecting the victims of child abuse from further injury. Although the Supreme Court has yet to rule on any policy allowing adults to use CCTV, the vast amount of courts and jurisdictions that agree on these policies show that these public policies are important and sufficient.

a. *Public policy to allow adults to use CCTV due to a witness' illness or injury*.

According to some courts, illness or injury of a witness can lead to a sufficient public policy to satisfy *Craig* and allow for adults to use CCTV (as long as the other prongs of *Craig* are satisfied).[71] For example, in *Bush v. State*, the witness lived out of the state and could not attend trial due to his congestive heart failure.[72] The Supreme Court of Wyoming held that allowing the witness to testify "via video conference was necessary to further the important public policy of preventing further harm to his already serious medical condition."[73] Similarly, in *Turner v. Crews*, the witness had a health condition which rendered it "'virtually impossible' and very costly for him to personally appear at trial."[74] The Court thus ruled that CCTV should be provided for the witness to prevent further harm and to provide the jury with evidence to justly resolve the case.[75] Additionally, there are several more cases where public policies of preventing further harm and accommodating for injured witnesses are implicated by a key witness too ill to appear in court.[76]

68 *See Collins v. Cain*, No. 13–0251, 2013 WL 4891923, at *14 (E.D. La. Sept. 11, 2013).

69 *See United States v. West*, No. 08 CR 669, 2010 WL 3324886, at *2 (N.D. Ill. Aug. 18, 2010) (finding that applying terrorism as the standard is too high a threshold for an exception under *Craig*).

70 *See Collins*, 2013 WL 4891923, at *13 (citing *Brumley v. Wingard*, 269 F.3d 629, 644 (6th Cir. 2001)).

71 *State v. Rogerson*, 855 N.W.2d 495, 506 (Iowa 2014).

72 *Bush v. State*, 193 P.3d 203, 214 (Wyo. 2008).

73 *Id.* at 215-16.

74 *Turner v. Crews*, No. 4:11CV488–WS, 2014 WL 2805218, at *14 (N.D. Fla. June 20, 2014).

75 *See id.*

76 *See, e.g.*, *Horn v. Quarterman*, 508 F.3d 306, 319–20 (5th Cir. 2007) (finding requisite state interest for use of CCTV when necessary to "protect the witness ... from physical danger or suffering" because of witness' illness and inability to travel); *United States v. Gigante*, 166 F.3d 75, 80-82 (2nd Cir. 1999) (finding an important state interest to allow CCTV when necessary to further the interest of justice when the witness had terminal cancer and could not attend the trial); *State v. Sewell*, 595 N.W.2d 207, 210-14 (Minn. Ct. App. 1999) (approving CCTV of a witness too ill to travel to court in Minnesota); *People v. Wrotten*, 923 N.E.2d 1099, 1103 (N.Y. 2009) (holding that "the public policy of justly resolving criminal cases while at the same time protecting the well-being of a witness can

b. *Public policy to allow adults to use CCTV when a witness resides in a foreign country beyond the state's subpoena power.*

According to some courts, there is a sufficient public policy to allow for adults to use CCTV when necessary to allow the witness to testify when the witness resides in a foreign country beyond the state's subpoena power.[77] Most courts, however, seem to require some impediment to testifying beyond mere unwillingness to travel.[78] In *Harrell v. Butterworth*, the witnesses lived in Argentina, which was beyond the subpoena power of the court.[79] One witness was also in such poor health that she could not travel to the United States.[80] The Court thus held that the witnesses could use CCTV as there is an important public policy to "expeditiously and justly resolve criminal matters that are pending in the state court system" and there was no way to compel the witnesses to attend trial.[81] This was combined with the policy of preventing further injury to the witnesses who were in bad health.[82] In contrast, in *United States v. Yates*, the witnesses lived in Australia and refused to come to the United States to testify.[83] The Court found that CCTV is proper when there is an important public policy of expeditiously resolving matters and when the witness is out of the state's subpoena power, but held that more was necessary than just an unwillingness to travel.[84] Finally, in *United States v. Mostafa*, the Court ruled that since the witness would be arrested if he left the United Kingdom, then he could use CCTV as it furthered a public policy to justly resolve criminal matters when the witness is unavailable and outside subpoena powers.[85]

c. *Public policy to allow adults to use CCTV due to a witness being intimidated by the defendant.*

Witness intimidation is a big problem in that it is disruptive of the administration of justice.[86] Courts are thus justifiably worried that witnesses who are intimidated will not provide reliable testimony.[87] Therefore, there is a sufficient public policy to allow adults to use CCTV when necessary to further the public policy of justly resolving the criminal case, while at the same time protecting the well being of the state's witnesses from harm and intimidation.[88]

d. *Other public policies that allow adults to use CCTV.*

require live two-way video testimony in the rare case where a key witness cannot physically travel to court in New York . . . ."); *State v. Seelig*, 738 S.E.2d 427, 435 (N.C. Ct. App. 2013) (holding that there is an important state interest to allow CCTV when necessary to justly resolve criminal matters when witness had panic attacks and was unable to travel to the trial due to the condition); *Stevens v. State*, 234 S.W.3d 748, 782 (Tex. App. 2007) (finding that under exceptional circumstances, such as when a witness has congestive heart failure, a court may allow a witness to testify via CCTV when this furthers the interest of justice).

77 *See State v. Rogerson*, 855 N.W.2d 495, 506-07 (Iowa 2014).

78 *See id.*; *but see F.T.C. v. Swedish Match North America, Inc.*, 197 F.R.D. 1, 2 (D.D.C. 2000) (holding that there is a public interest for use of CCTV when witness would have to travel across the continent and requiring no other impediment).

79 *Harrell v. Butterworth*, 251 F.3d 926, 931 (11th Cir. 2001).

80 *See id.*

81 *See id.*

82 *See id.*

83 *United States v. Yates*, 438 F.3d 1307, 1310 (8th Cir. 2006).

84 *See id.* at 1315-16.

85 *United States v. Mostafa*, 14 F. Supp. 3d 515, 522 (S.D.N.Y. 2014).

86 *See Johnson v. Warden, Lebanon Corr. Inst.*, No. 1:13-cv-82, 2014 WL 4829592, at *16 (S.D. Ohio September 29, 2014).

87 *See id.*

88 *See id.* at *21.

There is a sufficient public policy to allow adults to use CCTV when necessary to protect physical abuse victims.[89] Separately from protection for abuse victims, there is a significant public policy "to expeditiously and justly resolve criminal matters."[90] This policy usually needs to be combined with another policy (such as protecting witness who has an illness or who cannot travel).[91]

ii. Necessity and reliability are still required for adults to use CCTV

In order for an adult to use CCTV, he or she still needs to satisfy the necessity and reliability prongs of *Craig*.[92] Necessity requires that some evidence be presented that shows the witness needs CCTV.[93] Reliability is usually not too difficult to satisfy. Reliability is met if the adult witness giving CCTV testimony has been sworn, he or she is subject to cross-examination, he or she testified in the full view of the jury, court, and defense counsel, and he or she gave testimony under the eye of the defendant.[94] Therefore, since the courts have ruled that adult witnesses can use CCTV if the elements of *Craig* are met, this opens up the door for CCTV to be used for an adult witness who is a rape victim.

B. **Why CCTV should be used for adults who are rape victims**

Adult witnesses who are rape victims should be able to use CCTV if they meet all of the elements established in *Craig*. This includes requiring CCTV to be necessary and in furtherance of an important public policy as well as ensuring that the testimony is reliable.[95] In this part, I will first explain why protecting adults from further traumatization due to testifying in a defendant's presence is a significant public policy. I will then discuss some cases that have scratched the surface of allowing adults who are rape victims to use CCTV when necessary to protect them from further traumatization. Finally, I will show that allowing adults to use CCTV can still satisfy the elements of necessity, public policy, and reliability and thus surpass the Confrontation Clause.

i. Protecting adult rape victims from further traumatization due to testifying in a defendant's presence is a significant public policy.

The question of whether an adult rape victim who would be emotionally traumatized by testifying in the presence of the alleged rapist can be afforded CCTV has not been looked at by many courts. This question depends in part on whether protecting adult rape victims from further trauma is an important public policy; however, as will be explained later, there may be other polices for adults to use CCTV. One fact that is not disputable though is that rape is a serious problem in the United States. The U.S. Department of Justice and the Centers for Disease Control and Prevention estimated that around 15% of U.S. women have been raped in their lifetimes.[96] In a hearing before the United States Senate, a study from 2005 was cited and demonstrated that there were roughly over

89 *People v. Williams*, 125 Cal. Rptr. 2d 884, 893 (Cal. Ct. App. 2002).
90 *See, e.g.*, *Harrell v. Butterworth*, 251 F.3d 926, 931 (11th Cir. 2001); *Johnson*, 2014 WL 4829592, at *17.
91 *See id.*
92 *See United States v. Gigante*, 166 F.3d 75, 80 (2d Cir. 1999).
93 *See State v. Rogerson*, 855 N.W.2d 495, 507 (Iowa 2014).
94 *See, e.g.*, *Harrell*, 251 F.3d at 931; *Gigante*, 166 F.3d at 80; *Stevens v. State*, 234 S.W.3d 748, 782 (Tex. App. 2007).
95 *See e.g.*, *Craig*, 497 U.S. at 850; *Yates*, 438 F.3d at 1314.
96 Patricia Tjaden & Nancy Thoennes, U.S. Dep't of Justice, *Prevalence, Incidence, and Consequences of Violence Agaainst Women: Findings From the National Violence Against Women* Survey 3 (1998), https://www.ncjrs.gov/pdffiles/172837.pdf.

800,000 adult women in the United States who were forcibly raped in the year 2004 alone.[97] This same study presented to the Senate explained that rape was not going away as the proportion of adult women in the United States who have been victims of forcible rape had increased over 25% in 2005 than what the proportion was in 1990.[98] However, these numbers are potentially much higher, because some experts estimate that only 15-19 percent of rapes in the United States are reported.[99]

Not only is rape prevalent in the United States, but it is also causing significant psychological problems for many, if not all, of the victims.[100] A common occurrence for rape victims is Post Traumatic Stress Disorder (PTSD).[101] Dr. Fiona Mason, a forensic psychiatrist at Saint Andrew's Hospital Northampton, has stated that "[i]n the early weeks after sexual assault most people . . . express a range of post-traumatic symptoms . . . [which] include anxiety, tearfulness, self blame and guilt, disbelief, physical revulsion and helplessness."[102] The medical community refers to this PTSD as rape trauma syndrome and reactions from being raped can also include extreme fear, humiliation, and anger.[103] Most people that experience these problems still have them after a long time since the rape.[104] Testifying about the rape and facing the rapist in court can also add to the already devastating emotional damages the victim has.[105] Testifying in front of the rapist makes victims face the person who they may greatly fear, leading some to feel as though the sexual assault is recurring to which they re-experience terror and humiliation.[106]

Due to the high number of rape victims and the PTSD associated with rape, it can be seen that this is a significant social and health problem in the United States that should be corrected. One way to fix it is to have more convictions of the actual perpetrators to instill a greater deterrence. However, this requires more than 19% of the victims to report when they have been victims of rape. This may be achieved by allowing adult victims to use CCTV so he or she will not be afraid of reporting the crime and testifying in court. Therefore, because *Craig* and 18 U.S.C. § 3509 allow for children of rape to use CCTV if there is a substantial likelihood of emotional trauma from testifying (along with necessity and reliability), the same should be allowed for adult victims.[107] Adults do have emotional trauma due to testifying in front of the

97 *Rape in the United States: The Chronic Failure to Report and Investigate Rape Cases: Hearing before the Subcomm. on Crime and Drugs & the S. Comm. on the Judiciary*, 111th Cong. 87 (2010) (statement of Dean G. Kilpatrick, Professor of Clinical Psychology at the Medical University of South Carolina).

98 *Id.* at 27, 86-87.

99 Kathleen Daly & Brigitte Bouhours, *Rape and Attrition in the Legal Process: A Comparative Analysis of Five Countries*, 39 Crime & Just. 565, 572 (2010).

100 *See* Yxta Maya Murray, *Rape Trauma, the State, and the Art of Tracey Emin*, 100 Calif. L. Rev. 1631, 1639-40 (2012) (discussing the psychological issues that come after being a victim of rape).

101 *See* Meg Garvin et el., National Crime Victim Law Insitute, *Allowowing Adult Sexual Assault Victime To Testify At Trial Via LiveVideo Technology* 1 (2011), https://law.lclark.edu/live/files/11775-allowing-adult-sexual-assault-victims-to-testify.

102 Jan Welch & Fiona Mason, *Rape and Sexual Assault*, 334 Brit. Med. J. 1154, 1157 (2007).

103 Lisa Hamilton Thielmeyer, Note, *Beyond* Maryland v. Craig*: Can and Should Adult Rape Victims be Permitted to Testify by Closed-Circuit Television?*, 67 Ind. L.J. 797, 810-11 (1992).

104 *Rape in the United States: The Chronic Failure to Report and Investigate Rape Cases: Hearing before the Subcomm. on Crime and Drugs & the S. Comm. on the Judiciary*, 111th Cong. 27 (2010) (statement of Dean G. Kilpatrick).

105 *See* Thielmeyer, *supra* note 102, at 811.

106 *See* Jim Parsons and Tiffany Bergin, *The Impact of Criminal Justice Involvement on Victims' Mental Health*, 23 J. Traumatic Stress 182, 182-84 (2010); Garvin et al., *supra* note 100, at 1-2.

107 18 U.S.C. § 3509 (b)(1)(B); *Craig*, 497 U.S. at 852-54.

defendant.[108] So, just as a child, we need to protect adult victims to help them recover, to protect them from more trauma by having to face the defendant, and also to give them more incentive to go to court and receive justice. Thus, protecting adult victims from further emotional trauma due to testifying in front of the defendant is a significant public interest to allow for adults to use CCTV.

There are also different laws and programs in the United States, which show that protecting the rape victim from embarrassment and trauma is a significant public policy. First, there are the rape shield laws. Before rape shield laws were in place, defense attorneys at trial could cross-examine the victim on his or her past sexual history and cause needless psychological or emotional abuse.[109] The admission of such evidence caused the victims who testified to experience trauma and contributed to their reluctance to report and testify about rape.[110] In response to this practice, demands for the protection of victims against the trauma and humiliation at trial were called for and legislatures started to pass rape shield laws in the 1970s.[111] The federal version of the rape shield law, Federal Rule of Evidence 412, was passed in 1978 and gave victims of rape additional protections outside of the exception to the character evidence rule.[112] These federal and state rape shield laws were questioned in court, but ultimately, they withstood constitutional scrutiny.[113] This can be attributed to the fact that the laws protected rape victims from embarrassment and trauma, which was found to be a sufficiently important public policy as it lead to the encouragement of rape victims to report the crime.[114] Thus, protecting adult victims from trauma and distress due to testifying face-to-face with the alleged rapist must also be an important public policy.

The increasing amount of rape/sexual assault victim-oriented programs and task forces also shows that protecting the rape victim from embarrassment and trauma is a significant public policy.[115] The creation of rape crisis centers and other programs over the country have enhanced the quality of victim health care, made victim's needs a priority, and improved prosecution rates.[116] These programs also show that communities support a public policy of minimizing emotional and physical suffering of rape victims while also garnering more convictions against perpetrators.[117]

Even more, several states have statutes that allow adult victims of sexual and physical abuse to

108 Garvin et al., *supra* note 100, at 1.

109 Kathleen Winters, Note, United States v. Shaw*: What Constitutes an "Injury" Under the Federal Rape-Shield Statute?*, 43 U. Miami L. Rev. 947, 951 (1989).

110 *See id.* at 957.

111 *See* Thielmeyer, *supra* note 102, at 811-12.

112 *See id.*

113 *See id.* at 813 (citing Doe v. United States, 666 F.2d 43, 48 & n.9 (4th Cir. 1981)).

114 *See id.* (citing 124 Cong. Rec. 34, 912 (1978) (statement of Rep. Mann)). 124 CONG. REC. 34,912 (1978) (statement of Rep. Mann); 124 CONG.REC. 34,912 (1978) (statement of Rep. Mann); 124 CONG.REC. 34,912 (1978) (statement of Rep. Mann);

115 Garvin et el., *supra* note 100, at 4.

116 *See* Joye Frost, Op-Ed., *Innovative Partnerships Improve Services for Crime Victims*, PR Newswire, May 23, 2011, *available at* http://www.prnewswire.com/news-releases/innovative-partnerships-improve-services-for-crime-victims-122463848.html.

117 Garvin Et Al., *supra* note 100, at 4.

testify through CCTV.[118] In *Craig*, the Court held that if a number of states recognize the public policy, then it may be an important policy.[119] Accordingly, since there are several states that recognize a public policy to protect adult victims from further trauma, it is now very hard to refute that this is in fact an important policy that should be recognized by all the courts. Furthermore, if protecting witnesses who have an illness, are not within the court's subpoena power, or are victims of physical abuse are considered important policies by many courts, then protecting the emotional well-being of a victim, which is just as, if not more important, should absolutely be an considered an important policy.

ii. Cases that bolster the belief that protecting adult rape victims from further trauma due to testifying in front of the defendant is a significant public policy to allow CCTV.

Some courts have paved the way for the policy of protecting adult rape victims from further trauma due to testifying in front of the defendant to be seen as significant. In *People v. Burton*, the adult victim was brutally beat and raped.[120] The Court determined that because the manner in which she was assaulted was so horrible, a mentally fit adult "would likely be frightened by the sight and presence of her attacker."[121] Therefore, the Court found that her physical and psychological well-being was "sufficiently important to limit defendant's right to face his accuser in person and in the same courtroom."[122] Even though the Court held that her well-being was important in part because she was mentally challenged and the act was so ruthless, this case still shows that protecting the psychological well-being of an adult victim may be an important public policy. In another case, *Ex Parte Taylor*, the Texas Criminal Appeals Court ruled that, "[t]he State has an interest in protecting victims of domestic abuse from further trauma caused by testifying against the alleged perpetrator."[123] Hence, even though this case was about domestic abuse, it shows that protecting victims from further trauma is a significant policy and this could easily be applied to rape victims. Other courts have stated that there may be an important public policy in protecting rape victims from further trauma due to testifying in front of the defendant, but there needs to be evidence showing necessity in order to surpass the Confrontation Clause.[124] Thus, all these cases show that protecting adult rape victims from further trauma due to testifying in front of the defendant should be seen as a significant public policy and allow for CCTV as long as the witness also satisfies the elements of necessity and reliability.

iii. Allowing adult rape victims to use CCTV can satisfy the elements of necessity, public policy, and reliability and thus surpass the Confrontation Clause.

118 Hadley Perry, Notes & Comments, *Virtually Face-To-Face: The Confrontation Clause and the Use of Two-Way Video Testimony*, 13 Roger Williams U. L. Rev. 565, 580 (2008) (citing Carol A. Chase, Article, *The Five Faces of the Confrontation Clause*, 40 Hous. L. Rev. 1003, 1020 & n.134 (2003)).

119 *Craig*, 497 U.S. at 853.

120 556 N.W.2d 201, 202-03 (Mich. Ct. App. 1996).

121 *See id.* at 205.

122 *See id.* at 206.

123 *Ex Parte Taylor*, 957 S.W.2d 43, 46 (Tex. Crim. App. 1997).

124 *See United States v. Partin*, No. 2:12cr188–MHT, 2014 WL 2831665 at *8-9 (M.D. Ala. June 23, 2014) (holding that even though the testimony may be difficult for adults, the emotional trauma must be due to testifying in the defendant's presence); *See People v. Murphy*, 132 Cal. Rptr. 2d 688, 693-94 (Cal. Ct. App. 2003) (ruling against allowing CCTV for witness because even if the court might allow a testifying adult victim, who would otherwise be traumatized, to testify by CCTV, the witness in this case did not make the necessary factual findings based upon evidence).

Face-to-face confrontation can be denied only where the trial court finds (1) that there is an important public policy that will be served by denying physical confrontation, (2) that such denial is necessary to further that policy, and (3) that other measures will ensure the reliability of the testimony.[125] The important public policy of protecting adult witnesses from further traumatization has already been explained above. However, that may not be the only important public policy to allow adult witnesses to use CCTV. Protecting the well-being of the adult witness from harm and intimidation has been ruled to be an important policy for non-sexual assault victims.[126] Also, 18 U.S.C. § 3509 holds that a child witness may use CCTV if he or she cannot testify in front of the defendant because the defendant or defense counsel's conduct caused the child to be unable to testify.[127] Hence, protecting against intimidation is an important public policy and protecting adult rape victims from harm and intimidation by letting them use CCTV should be a consequential extension of that policy. Additionally, as explained above, courts have held that there is a significant public policy to expeditiously and justly resolve criminal matters if the witness cannot give testimony in front of the defendant.[128] If a rape victim is afraid to give testimony in front of the defendant, then the case cannot be justly resolved as key testimony is missing. However, if the witness can give testimony through CCTV, then the case can be rightfully ruled. Thus, this important policy of justly resolving criminal matters should also apply to adult rape victims and allow them to use CCTV.

For necessity, this needs to be determined on a case-by-case basis.[129] The court must hear evidence to determine whether the denial of face-to-face confrontation is necessary to further the public policy.[130] If the interest is that the witness would face trauma from testifying in the presence of the defendant, then there must be evidence that emotional trauma is not de minimus and is due to testifying in the defendant's presence and not testimony in general.[131] This can easily be achieved by having an expert give factual findings about the adult witness to show that CCTV is in-fact necessary (for example, this can be a showing that the witness would be traumatized from testifying in front of the defendant or that the witness would be intimidated). For reliability, this is assured by providing the defendant with the right of cross-examination; having the witness give statements under oath; and granting an opportunity to assess the witness's demeanor.[132] This can be met by having the adult witness who is giving testimony by CCTV be sworn, be subject to a cross-examination, and be positioned on the camera so that the jury, judge, and defendant can see his or her demeanor.

Therefore, it is possible for the elements of *Craig* to be established by allowing an adult rape victim to use CCTV. Because of this, CCTV should be granted to adult rape victims in place of face-to-face controversy established by the Confrontation Clause if the *Craig* elements are met.

VI. **Proposed Rule**

Now there is a new rule proposed – one that will protect witnesses from trauma and intimidation, but will also advance justice by encouraging more rape victims to report the crime and go to trial. This rule states: the court may order that the testimony of an adult who is a rape victim be taken by closed-circuit television if the court finds that the adult is unable to testify in open court in the presence of the defendant, for any of the following reasons: (1) an expert has determined that there is a substantial likelihood that the adult would suffer

125 *See Craig*, 497 U.S. at 850.

126 *Johnson v. Warden, Lebanon Corr. Inst.*, No. 1:13–cv–82, 2014 WL 4829592, at *16-21 (S.D. Ohio September 29, 2014).

127 18 U.S.C. § 3509(b)(1)(B)(iv).

128 *See, e.g.*, *Harrell*, 251 F.3d at 931; *Johnson*, 2014 WL 4829592, at *17.

129 *See Craig*, 497 U.S. at 855-56.

130 *See id.*; *see Murphy*, 132 Cal. Rptr. 2d at 693-94.

131 *See Partin*, 2014 WL 2831665, at *8-9.

132 *See Craig*, 497 U.S. at 845-46; *Johnson*, 2014 WL 4829592, at *22.

emotional trauma from testifying; (2) the adult is suffering from an infirmity which severely restricts his or her ability to travel to the court; or (3) the defendant or defense counsel's conduct caused the adult to be unable to continue testifying due to intimidation.

This new rule, however, will not be in place without its opponents. Some may argue that it is more difficult to judge the truthfulness and reliability of a witness testifying on a television screen. However, no matter if the witness is in court or on video, it is equally hard to determine truthfulness. This is shown by the fact that social scientists have amassed substantial evidence that most people are unable to identify whether a witness is lying from the witness's demeanor.[133] Also, the Sixth Circuit noted that there is evidence that face-to-face confrontation would in fact disserve the Confrontation Clause's truth-seeking goal, because witnesses would be afraid and not give truthful testimony.[134] Another argument is that this will open up a floodgate to more and more adult rape victims using CCTV. This could potentially lead to false convictions due to jury members believing that the defendant must be guilty if the witness is too afraid to testify. However, the floodgate will not be opened, because CCTV is only going to be used when proven to be necessary. Thus, its effect on false convictions will be minimal. The next argument is that allowing the use of CCTV to adult rape victims will be a slippery slope towards allowing CCTV for adult victims of any crime. This is not the case though as it is clinically proven that rape actually leads to PTSD in the form of rape trauma syndrome.[135] Other crimes simply do not have the same harmful effects to allow CCTV.

Some critics may also argue that it is unfair to the defendant to allow witnesses to testify over camera. However, many courts have already ruled that CCTV can be used, showing that allowing witnesses to testify over camera is not unfair.[136] What is unfair though is allowing a rapist to use fear to keep the witness from testifying and levering his or her way to freedom.[137] Finally, some people may argue that this law would be hard to administer because it is too hard to determine when the use of CCTV is necessary. This argument is not strong though, because necessity can simply be determined through hearings with experts (so judges do not have to rely solely on witnesses exclaiming they are afraid).

This rule promotes good and just ends as well. First, this rule allows for the defendant to hear allegations directly from the witness as opposed to a mere second-hand account of the witness's testimony.[138] This helps ensure that the testimony is accurate and that the accusations are real.[139] Next, this rule takes advantage of our modern technology today and allows for a procedure that is efficient, convenient, and cost-effective.[140] Finally, this rule will promote justice. With this rule in place, more victims will be willing to report the crime, as they will not have to fear testifying in front of their rapist. This rule will also promote justice, because now key witnesses who were once afraid to testify will give testimony and lead to more just trials.

VII. **Conclusion**

The Confrontation Clause of the Sixth Amendment has been interpreted in *Roberts* to dismiss face-to-face testimony only (1) after a showing of unavailability by the witness and (2) when the statement bears adequate indicia of reliability.[141] Although *Roberts* has been overruled by

133 Michael D. Roth, Comment, *Laissez-Faire Videoconferencing: Remote Witness Testimony and Adversarial Truth*, 48 UCLA L. REV. 185, 207 (2000).

134 *See Danner v. Motley,* 448 F.3d 372, 377-79 (6th Cir. 2006).

135 Jan Welch & Fiona Mason, *supra* note 101, at 1157.

136 *See, e.g.*, *Craig*, 497 U.S. at 836.

137 *See* Evans, *supra* note 56, at 494.

138 Perry, *supra* note 117, at 587.

139 *Id.*

140 *Id.* at 568.

141 *See Roberts*, 448 U.S. at 66.

Crawford, the courts still apply the process outlined in *Roberts* for CCTV testimony.[142] This can be seen in *Craig* where the court ruled that child victims of sexual assault can use CCTV if it is necessary to further an important public policy of protecting the witness from further trauma and the testimony is reliable.[143]

The use of CCTV should also be used to allow adult rape victims to testify outside the presence of the defendant. This procedure can potentially promote important policies such as preventing trauma due to testifying in front of the defendant as well as a purpose to protect witnesses against intimidation. CCTV in this situation also meets the other elements of reliability and necessity. Importantly, allowing adult rape victims to use CCTV could potentially encourage more victims to report the crime and greatly promote justice. Thus, adult rape victims should be permitted to testify by CCTV when the elements of *Craig* are established.

142 *See Craig*, 497 U.S. at 850.
143 *Id.*

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Matthew Marthaler is from of Flemington, New Jersey and has lived there for 15 years. He majored in Forensic Chemistry at York College of Pennsylvania in 2013 and will obtain a law degree from the University of Chicago Law School in 2016. Matthew has been involved in human rights work during law school and has presented memorandum to the Inter-American Commission on Human Rights as well as worked with officials from the Delhi state government in regards to housing rights.

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