ARTICLES

A JURISPRUDENCE OF RISK ASSESSMENT: FORECASTING HARM AMONG PRISONERS, PREDATORS, AND PATIENTS

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INTRODUCTION

AT the penalty hearing of Victor Saldano's capital murder case, a Texas jury was asked whether the defendant, if not executed, "would commit criminal acts of violence that would constitute a continuing threat to society."[1] The state introduced an expert witness who found Saldano possessed many risk factors for violence, among them his Hispanic ethnicity, which the expert testified was "a factor weighing in favor of future dangerousness."[2] The

[1] Tex. Code Crim. Proc. Ann. art. 37.071(2)(b)(1) (Vernon Supp. 2005). The statute was upheld in Barefoot v. Estelle, 463 U.S. 880, 896–901 (1983).

[2] Press Release, Office of the Texas Attorney General, Attorney General John Cornyn Says Race Should Not Have Been Considered in Determining Defendant's Sentence (May 21, 2002), available at http://www.oag.state.tx.us/newspubs/newsarchive/2002/20020521saldano.htm. The same expert offered similar testimony regarding race or ethnicity as a risk factor for violence in eight other cases in Texas. Press Release, Office of the Texas Attorney General, Statement from Attorney General John Cornyn Regarding Death Penalty Cases (June 9, 2000), available at http://www.oag.state.tx.us/newspubs/newsarchive/2000/20000609death.htm [hereinafter Cornyn Press Release].

jury sentenced the defendant to death, and after the Texas Court of Criminal Appeals upheld the sentence, Saldano successfully petitioned the United States Supreme Court for a writ of certiorari and argued that the use of race or ethnicity for assessing risk of future violence violated the Equal Protection Clause.[3]

In its response to the defendant's federal petition, the state—which had vigorously pursued the death penalty in Texas courts—had a dramatic change of heart. On the eve of oral argument, then-Attorney General John Cornyn conceded to the Court that "[b]ecause the use of race in Saldano's sentencing seriously undermined the fairness, integrity or public reputation of the judicial process, Texas confesses error and agrees that Saldano is entitled to a new sentencing hearing."[4] Then-Governor George W. Bush praised his Attorney General's confession of error as "an indication that there are safeguards in the system."[5] Codifying the Attorney General's revised position, the legislature passed, and new Governor Rick Perry signed, an amendment to the Texas Code of Criminal Procedure stating: "[E]vidence may not be offered by the state to establish that the race or ethnicity of the defendant makes it likely that the defendant will engage in future criminal conduct."[6]

Jurisprudential debate about whether and how the law should rely on an assessment of an individual's risk of future violence is not limited to Texas or to capital punishment hearings. It is occurring throughout the country—indeed, throughout the world[7]—and for a variety of legal purposes. This Article will explore the contexts in which violence risk assessments are being introduced as

[3] See Saldano v. State, 70 S.W.3d 873, 875 (Tex. Crim. App. 2002). The question for review at the Supreme Court was "[w]hether a defendant's race or ethnic background may ever be used as an aggravating circumstance in the punishment phase of a capital murder trial in which the State seeks the death penalty." Id.

[4] Steve Lash, Texas Death Case Set Aside, Hous. Chron., June 6, 2000, at 1A. Accordingly, the U.S. Supreme Court vacated the judgment and remanded it for further proceedings. Saldano v. Texas, 530 U.S. 1212 (2000). After a series of further procedural issues in the lower courts, the State ultimately was required to conduct a new sentencing hearing where Saldano was once again sentenced to death. As of the time of publication, Saldano's case is still on appeal.

[5] James Kimberly & Lisa Teachey, Testimony Not Racist, Says Social Scientist, Hous. Chron., June 7, 2000, at 1A.

[6] Tex. Code Crim. Proc. Ann. art. 37.07(3)(a)(2) (Vernon Supp. 2005).

[7] See Alec Buchanan & Morven Leese, Detention of People with Dangerous Severe Personality Disorders: A Systematic Review, 358 Lancet 1955 (2001).

scientific evidence, review the risk factors for violence that social science research has validated, and address jurisprudential concerns in using these risk factors for specific legal purposes.

In Part I, I will describe developments in substantive law that have amplified the salience of violence risk assessment. Despite their notoriety in cases such as *Saldano*, forward-looking risk assessments of future violence in criminal sentencing have been deemphasized for the past two decades in favor of backward-looking procedures designed to assess blameworthiness for past conduct. Most of the recent developments implicating violence risk assessment have been in a civil rather than a criminal context. Treatment advocates have played to exaggerated public fear of violence by people with mental disorder to loosen legal strictures on commitment to mental hospitals for those found to be dangerous to others.[8] These same advocates have also been successful for the first time in obtaining legislation in many states permitting legally enforceable commitment to outpatient treatment. In addition, the Supreme Court in *Kansas v. Hendricks*[9] and *Kansas v. Crane*[10] upheld sexually violent predator statutes that provided for the post-imprisonment civil commitment of sex offenders who have a "mental abnormality"—but *not* a major mental disorder, such as schizophrenia—which results in their becoming "likely to engage in repeat acts of sexual violence."[11]

Alongside these developments in the law have been developments in the science of violence forecasting.[12] I will consider these in Part II. For fifty years, behavioral scientists have known in theory that actuarial (sometimes called statistical) risk assessment is far more accurate than reliance on unstructured professional judgment in predicting a wide variety of outcomes. But instruments for implementing this knowledge in the context of assessing risk of

[8] See, e.g., Or. Rev. Stat. Ann. § 426.130 (West 2003); S.D. Codified Laws § 27A-1-1 (Supp. 2003); Wyo. Stat. Ann. § 25-10-101(a)(ii) (2001); 2003 Md. Laws 441; 2002 Minn. Laws 335.

[9] 521 U.S. 346 (1997).

[10] 534 U.S. 407 (2002).

[11] Kan. Stat. Ann. § 59–29a01 (Supp. 2004).

[12] The analogy between forecasting harmful weather and "forecasting" harmful behavior is explored in John Monahan & Henry J. Steadman, Violent Storms and Violent People: How Meteorology Can Inform Risk Communication in Mental Health Law, 51 Am. Psychologist 931 (1996).

violence had not been developed until recently, when a number of actuarial violence risk assessment tools became widely available. The best known of these instruments as well as their common risk factors will be considered here.

In Part III, I will address jurisprudential concerns regarding violence risk assessment in the criminal and civil law contexts described in Part II. As Christopher Slobogin has stated, "[C]ourts and lawyers need to pay much more attention to how and why we justify these deprivations of liberty based on dangerousness. . . . [A] jurisprudence of dangerousness is an essential aspect of regulating government power."[13] In criminal law, with its emphasis on blameworthiness for past actions, I will argue that the use of violence risk factors in sentencing is jurisprudentially constrained to those that index the extent or seriousness of the defendant's prior criminal conduct. In contrast, law authorizing the civil commitment of people with serious mental disorder to inpatient or outpatient treatment involves a legal determination about future conduct in which blameworthiness for past conduct plays no part. I will contend, therefore, that the use of violence risk factors in civil commitment is jurisprudentially unconstrained except for classifications subject to strict scrutiny, which in the case of violence risk assessment is limited to the individual's race or ethnicity that runs afoul of the Equal Protection Clause. Finally, if commitment as a sexually violent predator is properly categorized as *civil* commitment, as the Supreme Court twice has held, I will argue that the use of violence risk factors in effectuating such commitments should jurisprudentially parallel the use of violence risk factors in traditional civil commitment: Any risk factor that validly forecasts violence—with the single exception of race or ethnicity—is a legitimate candidate for inclusion on actuarial risk assessment instruments.

[13] Christopher Slobogin, A Jurisprudence of Dangerousness, 98 Nw. U. L. Rev. 1, 62 (2003); see also Jonathan Simon, Reversal of Fortune: The Resurgence of Individual Risk Assessment in Criminal Justice, 1 Ann. Rev. L. & Soc. Sci. 397 (2005); Bernard E. Harcourt, *Against* Prediction: Sentencing, Policing, and Punishing in an Actuarial Age (Chi. Pub. Law & Legal Theory, Working Paper No. 94, 2005), available at http://ssrn.com/abstract=756945.

I. DEVELOPMENTS IN THE LAW OF VIOLENCE RISK ASSESSMENT

In recent years, developments regarding violence risk assessment have taken place in three legal contexts: criminal sentencing, the civil commitment of people with serious mental disorder, and the commitment of sexually violent predators. Different legal and policy concerns have led reliance on violence risk assessment to decrease in the first of these contexts and to increase in the second and third.

A. Criminal Sentencing

The federal Sentencing Commission created by the Sentencing Reform Act of 1984[14] confronted what it referred to as a "philosophical problem"[15] when it set out to draft guidelines for use in sentencing convicted offenders. The problem had to do with determining "the purposes of criminal punishment."

> Some argue that appropriate punishment should be defined primarily on the basis of the principle of "just deserts." Under this principle, punishment should be scaled to the offender's culpability and the resulting harms. Others argue that punishment should be imposed primarily on the basis of practical "crime control" considerations. This theory calls for sentences that most effectively lessen the likelihood of future crime, either by deterring others or incapacitating the defendant.[16]

Assessing the likelihood of future crime is jurisprudentially irrelevant to sentencing under the backward-looking principle of punishment as just deserts, but is a central task of sentencing under the forward-looking principle of crime control. Yet in the view of the Commission, choosing between these two fundamental principles of punishment was unnecessary, "because in most sentencing decisions, the application of either philosophy will produce the same or similar results."[17] Remarkably, this brief and facile treat-

[14] 18 U.S.C. § 991 (2000).

[15] U.S. Sentencing Guidelines Manual § 1A3 (2000).

[16] Id.

[17] Id.; see also Stephen Breyer, The Federal Sentencing Guidelines and the Key Compromises Upon Which They Rest, 17 Hofstra L. Rev. 1, 15 (1988) (referring to this "important compromise"). But see Paul H. Robinson, Punishing Dangerousness: Cloaking Preventive Detention as Criminal Justice, 114 Harv. L. Rev. 1429, 1438,

ment issued in 1987 has been the Commission's first and last word on the jurisprudence of criminal punishment.

While theoretically agnostic about *why* we punish, the Sentencing Guidelines[18] promulgated by the Commission were remarkably explicit on *how* we punish: race, sex, religion, national origin, socioeconomic status, and a disadvantaged upbringing "are not relevant" in the determination of a sentence.[19] In addition, education, vocational skills, employment record, family ties, community ties, age, mental and emotional condition, and substance abuse are not ordinarily relevant in the determination of a sentence.[20] As Professor Kate Stith and Judge José Cabranes note, "the Commission has never explained why it chose to exclude a variety of factors (especially those relating to the personal history of the defendant) from the sentencing calculus."[21]

With the single exception of criminal history—which the Guidelines state "*is* relevant in determining the appropriate sentence"[22]—virtually all of the variables that potentially could be used as scientifically valid risk factors for violence[23] under a forward-looking consequentialist "crime control" theory of punishment are explic-

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1441 (2001) ("Dangerousness and desert are distinct criteria that commonly diverge. . . . [T]hey inevitably distribute liability and punishment differently. To advance one, the system must sacrifice the other."). The separation of desert-based from consequence-based justifications for state intervention has been a major theme in the work of Stephen Morse. See Stephen J. Morse, Blame and Danger: An Essay on Preventive Detention, 76 B.U. L. Rev. 113 (1996); Stephen J. Morse, Neither Desert Nor Disease, 5 Legal Theory 265 (1999); Stephen J. Morse, Uncontrollable Urges and Irrational People, 88 Va. L. Rev. 1025 (2002).

[18] In *Blakely v. Washington*, 542 U.S. 296 (2004), the Supreme Court found Washington's sentencing guidelines to be unconstitutional under a defendant's Sixth Amendment right to trial by jury. The Court soon after applied the reasoning of *Blakely* to the federal government's sentencing guidelines, see United States v. Booker, 543 U.S. 220 (2005), but tempered the holding by allowing the Guidelines to remain advisory. Id. at 245–46 (Breyer, J.).

[19] U.S. Sentencing Guidelines Manual § 5H1.10, .12 (2000).

[20] Id. § 5H1.1–.6. While not "ordinarily" relevant, the noted factors may sometimes be relevant. See, e.g., id. § 5H1.2 (providing example of misuse of special training or education to facilitate criminal activity); id. § 5H1.3 (finding mental and emotional conditions relevant in determining probation or supervised release).

[21] Kate Stith & José A. Cabranes, Fear of Judging: Sentencing Guidelines in the Federal Courts 56 (1998).

[22] U.S. Sentencing Guidelines Manual § 5H1.8 (2000) (emphasis added); see also Linda Drazga Maxfield, Measuring Recidivism Under the Federal Sentencing Guidelines, 17 Fed. Sent'g Rep. 166 (2005).

[23] See infra Part II.

itly excluded from consideration in federal sentencing procedures. While no jurisprudential rationale for this exclusion is forthcoming from the Act or the Guidelines, the implicit concerns seem clear enough. Mark Moore is representative of the commentators:

> Some characteristics [used as risk factors for violence in sentencing], such as prior criminal conduct and current illegal drug use, are themselves crimes and therefore of direct interest to the criminal justice system. Others, such as race, religion, and political beliefs, are the opposite: they are specially protected against being used by criminal justice officials in making decisions. Some characteristics, such as prior crimes, drug use, and perhaps employment, are thought to be under the control of the offenders and therefore expressions of their inclinations and values. Other characteristics, such as age or race, are not under the control of the offenders and consequently are of little moral significance: they cannot be expressions of a person's character although they might be good predictors of future conduct.[24]

Even if crime control is one of the primary purposes of criminal punishment, concern for just deserts is sufficiently strong that it will constrain the variables used in the pursuit of crime control. A defendant's criminal history can be relied upon as a factor in sentencing, since in the words of one of the reports that led to the creation of the Sentencing Commission, "[A] record of prior offenses bears *both* on the offender's deserts *and* on the likelihood of recidivism."[25] But variables reflecting characteristics of the defendant that have no "moral significance" cannot be used to set sentence length in federal court, even if they have great statistical significance in predicting recidivism, including violent recidivism.

Sentencing systems vary greatly at the state level, and as Michael Tonry has noted, "there is no longer anything that can be called 'the American system' of sentencing and corrections."[26] A recent

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[24] Mark H. Moore, Purblind Justice: Normative Issues in the Use of Prediction in the Criminal Justice System, *in* 2 Criminal Careers and "Career Criminals" 314, 317 (Alfred Blumstein et al. eds., 1986).

[25] Andrew von Hirsch, Doing Justice: The Choice of Punishments 87 (1976) (emphasis added).

[26] Michael Tonry, The Fragmentation of Sentencing and Corrections in America, Sent'g & Corrections: Issues for the 21st Century (U.S. Dep't of Justice, National Institute of Justice, Washington, D.C.), Sept. 1999, at 1.

survey found that eighteen states have some form of sentencing guidelines, and that proposals for sentencing guidelines were pending in four additional states.[27] These state guidelines, like the federal ones, "typically reduce authorized sentencing criteria solely to the offender's crime and to some measure of his or her criminal history."[28]

B. The Civil Commitment of People with Mental Disorder

All states have statutes allowing certain people with a mental disorder to be involuntarily hospitalized in a psychiatric facility.[29] Prior to the late 1960s, involuntary commitment to psychiatric hospitals was justified primarily by a concern for people who were seen to be "in need of treatment." Beginning at that time, however, public safety began to dominate as a rationale for commitment, and risk of harmful behavior—called "dangerousness" in statutes and court decisions—became a primary focus of legal attention.[30] Typically, to qualify for involuntary civil commitment as a hospital inpatient, the individual had to have a mental illness and because of this illness be either "dangerous to others" or "dangerous to self."[31] While there was a flurry of interest, during the 1970s, in the

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[27] Robin L. Lubitz & Thomas W. Ross, Sentencing Guidelines: Reflections for the Future, Sent'g & Corrections: Issues for the 21st Century (U.S. Dep't of Justice, National Institute of Justice, Washington, D.C.), June 2001, at 2, 6 n.1.

[28] Michael Tonry, Reconsidering Indeterminate and Structured Sentencing, Sent'g & Corrections: Issues for the 21st Century (U.S. Dep't of Justice, National Institute of Justice, Washington, D.C.), Sept. 1999, at 9.

[29] State civil commitment statutes are compiled at http://www.psychlaws.org/LegalResources/Index.htm (last visited Feb. 3, 2006). For a general description of these statutes, see Lawrence O. Gostin, Public Health Law: Power, Duty, Restraint 210 (2000):

> Civil commitment is the detention (usually in a hospital or other specially designated institution) for the purposes of care and treatment. Civil commitment, like isolation and quarantine, is both a preventive measure designed to avert risk, and a rehabilitative measure designed to benefit persons who are confined. Consequently, persons subject to commitment usually are offered, and sometimes are required to submit to, medical treatment. Civil commitment is normally understood to mean confinement of persons with mental illness or mental retardation, but it is also used for containing persons with infectious diseases, notably tuberculosis, for treatment.

[30] See Paul S. Appelbaum, Almost A Revolution: Mental Health Law and the Limits of Change 22–26 (1994).

[31] See Michael L. Perlin, Law and Mental Disability 10–30 (1994).

constitutionality of commitment statutes, the Supreme Court left no doubt that it would uphold such laws, provided that adequate procedural safeguards were in place, such as proof of disorder and dangerousness by clear and convincing evidence.[32]

Advocates for family members of people with mental disorder have long argued that these 1960s-era civil commitment statutes were written so narrowly and with so many procedural protections that they left many people untreated. According to this view, many people who need mental health services but refuse to adhere to those services do so only because their disorder renders them incompetent to make treatment decisions,[33] leaving them effectively untreated. These advocates urged looser due process protections and longer time limits on hospital treatment to ensure that people with disorders were properly treated. For two decades, a combination of civil libertarian and fiscal concerns thwarted moves in this direction.[34]

In the past several years, however, the tide has turned in many states. This development has less to do with an increase in legislative compassion for people with mental disorder than with a shift in the lobbying tactics of the treatment advocates. No longer appealing to humanitarian concerns, advocates of reinvigorated commitment statutes—many of them family members of people with serious mental illness—have sold their approach to state legislatures by playing on already exaggerated public fears of violence committed by people with a mental disorder.[35] As stated by one of the most visible figures in the treatment advocacy movement,

> Laws change for a single reason, in reaction to highly publicized incidents of violence. People care about public safety. I am not saying it is right, I am saying this is the reality. . . . So if you're changing your [civil commitment] laws in your states, you have to understand that. . . . [I]t means that you have to take the debate

[32] See Addington v. Texas, 441 U.S. 418, 425–26, 431–33 (1979).

[33] Thomas Grisso & Paul S. Appelbaum, Assessing Competence to Consent to Treatment: A Guide for Physicians and Other Health Professionals 63–66 (1998).

[34] For an insightful history of these developments, see Appelbaum, supra note 30.

[35] See generally Bernice A. Pescosolido et al., The Public's View of the Competence, Dangerousness, and Need for Legal Coercion of Persons with Mental Health Problems, 89 Am. J. Pub. Health 1339 (1999).

out of the mental health arena and put it in the criminal justice/public safety arena.[36]

Examples of the new, less libertarian, and more treatment-oriented commitment statutes include those adopted in South Dakota. In 2000, South Dakota extended the time frame over which a violent act could be predicted to occur by deleting the word "very" from the previous statutory language that had read "very near future," thereby justifying civil commitments in more instances.[37] Likewise, Minnesota in 2002[38] and Maryland in 2003[39] removed the requirement that dangerousness be "imminent" before commitment can be ordered. Wyoming in 1999 broadened the definition of "dangerous to himself or others" to include not only "death" and "serious physical injury" but also "destabilization from lack of or refusal to take prescribed psychotropic medications."[40] Similarly, in 2002, the Wisconsin Supreme Court upheld a statute authorizing the commitment of people with mental disorder who, if left untreated, will lose their "ability to function independently in the community."[41] These new statutes loosen civil commitment requirements by either extending the time frame in which a dangerous act must occur or by expanding what qualifies as a dangerous act.

More dramatic than the loosening of existing civil commitment statutes for *inpatient* hospitalization has been the proliferation of new statutes allowing for civil commitment to *outpatient* treatment for people with a mental disorder. Mandating adherence to mental health treatment in the community through outpatient commitment has now become the most contested issue in mental health law.[42] Although forty U.S. jurisdictions have statutes that nominally

[36] D.J. Jaffe, Speech to the National Alliance for the Mentally Ill (1999) (transcript on file with author); see also E. Fuller Torrey & Mary Zdanowicz, Why Deinstitutionalization Turned Deadly, Wall St. J., Aug. 4, 1998, at A18 ("[A]pproximately 1,000 homicides a year are committed nationwide by seriously mentally ill individuals who are not taking their medication.").

[37] S.D. Codified Laws § 27A-1-1 (Supp. 2003).

[38] 2002 Minn. Laws 335.

[39] 2003 Md. Laws 441.

[40] Wyo. Stat. Ann. § 25-10-101(a)(ii) (2005).

[41] In re Commitment of Dennis H., 647 N.W.2d 851, 857 (Wis. 2002).

[42] See John Monahan et al., Mandated Community Treatment: Beyond Outpatient Commitment, 52 Psychiatric Services 1198 (2001); John Monahan et al., Mandated

authorize outpatient commitment, until recently few states made substantial use of these laws.[43] With the 1999 enactment in New York State of "Kendra's Law," however, nationwide interest in outpatient commitment (euphemistically termed "assisted outpatient treatment" in the statute) has greatly increased. The law was named in memory of Kendra Webdale, a young woman who died in 1999 after being pushed in front of a New York City subway train by a man with a history of mental illness. Kendra's Law mandates adherence to mental health treatment in the community for a person who meets a number of statutory qualifications, including suffering from mental illness, and who "is, as a result of his or her mental illness, unlikely to voluntarily participate in outpatient treatment" and "is in need of assisted outpatient treatment in order to prevent a relapse or deterioration which would be likely to result in serious harm to the person or others. . . ."[44] Kendra's Law has withstood a number of constitutional challenges in New York State courts,[45] and in February 2004 was unanimously upheld by the New York Court of Appeals.[46] Since it was enacted in late 1999,

Treatment in the Community for People with Mental Disorders, 22 Health Aff. 28, 29 (2003); Marvin S. Swartz & John Monahan, Special Section on Involuntary Outpatient Commitment: Introduction, 52 Psychiatric Services 323 (2001). There are three types of outpatient commitment. The first is a variant of conditional release from a hospital: A patient is discharged on the condition that he or she continues treatment in the community. The second type is an alternative to hospitalization for people who meet the legal criteria for inpatient treatment: They are essentially given the choice between receiving treatment in the community and receiving treatment in the hospital. The third type of outpatient commitment is preventive: People who do not currently meet the legal criteria for inpatient hospitalization but who are believed to be at risk of decompensation to the point that they will qualify for hospitalization if left untreated are ordered to accept treatment in the community. Joan B. Gerbasi et al., Resource Document on Mandatory Outpatient Treatment, 28 J. Am. Acad. Psychiatry & L. 127, 129 (2000); see also Richard J. Bonnie & John Monahan, From Coercion to Contract: Reframing the Debate on Mandated Community Treatment for People with Mental Disorders, 29 Law & Hum. Behav. 485, 497–98 (2005).

[43] Gerbasi et al., supra note 42, at 127–28.

[44] N.Y. Mental Hyg. Law § 9.60(c)(5)–(6) (McKinney Supp. 2006).

[45] See, e.g., In re Urcuyo, 714 N.Y.S.2d 862, 873 (N.Y. Sup. Ct. 2000) ("Kendra's Law provides the means by which society does not have to sit idly by and watch the cycle of decompensation, dangerousness and hospitalization continually repeat itself."); see also Ilissa L. Watnik, Comment, A Constitutional Analysis of Kendra's Law: New York's Solution for Treatment of the Chronically Mentally Ill, 149 U. Pa. L. Rev. 1181, 1219–27 (2001).

[46] See In re K.L., 806 N.E.2d 480, 482–83, 485–86 (N.Y. 2004) (finding the state's interests compelling over outpatient's right to refuse treatment).

11,856 people in New York State have been evaluated for outpatient commitment under Kendra's Law, of whom 4742 were committed and another 3579 were provided "service enhancements," also called "case management and oversight."[47] "Laura's Law," modeled on the New York statute, went into effect in California on January 1, 2003.[48] Florida,[49] Michigan,[50] and West Virginia[51] also amended their civil commitment statutes to allow for outpatient commitment, effective January 1, March 30, and April 9, 2005, respectively. The exploitation of public fear has led to a marked loosening of due process requirements among the states for civil commitment—a trend that is particularly noteworthy in the context of sexually violent predators.

C. The Commitment of Sexually Violent Predators

The most jurisprudentially influential case dealing with violence risk assessment in recent years is *Kansas v. Hendricks*, where the Supreme Court in 1997 upheld a sexually violent predator statute.[52] Under the Kansas Sexually Violent Predator Act,[53] an offender, after being convicted of a specified sexual crime and serving the prison sentence associated with that criminal conviction, can be found to be a sexually violent predator. This finding can serve as the predicate for civil commitment to a mental hospital for an indefinite period. The Act defined a "sexually violent predator" as "any person who has been convicted of or charged with a sexually violent offense and who suffers from a mental abnormality or personality disorder which makes the person likely to engage in repeat acts of sexual violence."[54]

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[47] New York State Office of Mental Health, Statewide AOT Report as of Feb. 1, 2006, http://www.omh.state.ny.us/omhweb/kendra_web/kstatus_rpts/statewide.htm. Kendra's Law has recently been renewed for another five years. Al Baker & Michael Cooper, On-Time Budget Heads List of Actions Taken in Legislature's 228th Session, N.Y. Times, Jul. 9, 2005, at A28.

[48] Cal. Welf. & Inst. Code §§ 5345–49.5 (West Supp. 2005).

[49] 2004 Fla. Laws 2952–76.

[50] 2004 Mich. Pub. Acts 496–99.

[51] W. Va. Code Ann. § 27-5-11 (West 2005).

[52] 521 U.S. 346 (1997).

[53] Kan. Stat. Ann. § 59-29a (Supp. 2004).

[54] Id. § 59-29a02(a).

Justice Thomas, writing for the 5-4 majority, made clear that it was pivotal in the decision that the statute under review was *civil* in nature. "The categorization of a particular proceeding as civil or criminal 'is first of all a question of statutory construction.' We must initially ascertain whether the legislature meant the statute to establish 'civil' proceedings. If so, we ordinarily defer to the legislature's stated intent."[55] He continued:

> Here, Kansas' objective to create a civil proceeding is evidenced by its placement of the Act within the Kansas probate code, instead of the criminal code, as well as its description of the Act as creating a "*civil commitment procedure*." Nothing on the face of the statute suggests that the legislature sought to create anything other than a civil commitment scheme designed to protect the public from harm.[56]

Even Justice Breyer, dissenting in *Hendricks*, noted that "[c]ivil commitment of dangerous, mentally ill individuals by its very nature involves confinement and incapacitation. Yet 'civil commitment,' from a constitutional perspective, nonetheless remains civil."[57] Five years later, in *Kansas v. Crane*, the Supreme Court reaffirmed the view that, in sexually violent predator cases, "the confinement at issue [is] civil, not criminal, confinement."[58]

[55] *Hendricks*, 521 U.S. at 361 (citation omitted).

[56] Id. (citations omitted). Justice Thomas argued the statute was properly categorized as civil rather than criminal because it did not implicate either of the two primary objectives of criminal punishment—retribution or deterrence. Id. at 361–63. Criticism of the *Hendricks* decision by legal and behavioral science commentators has been intense. See infra note 168.

[57] *Hendricks*, 521 U.S. at 380 (Breyer, J., dissenting); see also Paul H. Robinson, Foreword: The Criminal-Civil Distinction and Dangerous Blameless Offenders, 83 J. Crim. L. & Criminology 693 (1993) (discussing the difference between civil and criminal commitment and how the law should deal with dangerous offenders who are blameless and therefore not subject to criminal sanctions); Stephen J. Schulhofer, Two Systems of Social Protection: Comments on the Civil-Criminal Distinction, with Particular Reference to Sexually Violent Predator Laws, 7 J. Contemp. Legal Issues 69 (1996) (arguing that sexually violent predator statutes are civil commitment statutes).

[58] Kansas v. Crane, 534 U.S. 407, 409 (2002). The Court in *Crane* held that proof of a complete inability to control one's behavior was not a constitutionally necessary prerequisite to being found to be a sexually violent predator and civilly committed to a hospital: "It is enough to say that there must be proof of serious difficulty in controlling behavior." Id. at 413.

Fifteen states and the District of Columbia have now enacted sexually violent predator statutes modeled after the Kansas law that provide for the post-imprisonment civil commitment of sex offenders who have a mental abnormality and are believed to be at high risk of violent recidivism.[59] The latest data indicate that in those jurisdictions with sexually violent predator statutes, 2506 people have been adjudicated to be sexually violent predators and are currently confined in psychiatric facilities, along with at least 726 people hospitalized for evaluation and currently awaiting trial for commitment as sexually violent predators.[60]

II. DEVELOPMENTS IN THE SCIENCE OF VIOLENCE FORECASTING

In this Part, I first clarify the fundamental distinction between clinical and actuarial approaches to risk assessment and then briefly review several of the actuarial violence risk assessment instruments that have recently become available for use by expert witnesses. I also consider in detail ten risk factors for violence that often appear on these actuarial instruments.

A. Clinical and Actuarial Approaches to Risk

There are two basic approaches to the risk assessment of violence or any other form of human behavior. One approach, called clinical prediction, relies on the subjective judgment of experienced decision makers—typically, in the case of violence, psychologists and psychiatrists, but also parole board members or judges. The risk factors assessed in clinical prediction might vary from case to case, depending on which seem more relevant. These risk factors are then combined in an intuitive manner to generate an opinion about violence risk. The other approach, termed actuarial (or statistical) prediction, relies on explicit rules specifying which risk fac-

[59] W. Lawrence Fitch, Sexual Offender Commitment in the United States: Legislative and Policy Concerns, *in* Sexually Coercive Behavior: Understanding and Management 489, 490–92 (Robert A. Prentky et al. eds., 2003). See generally W. Lawrence Fitch & Debra A. Hammen, The New Generation of Sex Offender Commitment Laws, *in* Protecting Society from Sexually Dangerous Offenders 27 (Bruce J. Winick & John Q. LaFond eds., 2003).

[60] W. Lawrence Fitch, Remarks at the Annual Meeting of the National Association of State Mental Health Program Directors Forensic Division (Sept. 12, 2005) (transcript on file with author).

tors are to be measured, how those risk factors are to be scored, and how the scores are to be mathematically combined to yield an objective estimate of violence risk.[61] Professor Christopher Slobogin, writing over twenty years ago, stated that "read in their best light the data suggest that neither the clinical nor the actuarial method of prediction provides information that will permit an accurate designation of a 'high risk' group whose members have more than a forty to fifty percent chance of committing serious assaultive behavior."[62]

Recent research, reviewed below, confirms the continuing validity of Professor Slobogin's claim regarding clinical prediction, but indicates that the predictive validity of actuarial instruments has significantly improved in the past twenty years.

1. Clinical Prediction

Neither the customary inpatient or outpatient forms of civil commitment, nor civil commitment of a sexually violent predator, is predicated on the assumption that *all* people with mental disorder or mental abnormality will be violent. Rather, they are premised on the belief that behavioral scientists can distinguish with a reasonable degree of accuracy between those people with mental disorder or abnormality who are "dangerous" and those who are not.

One early review of the research challenging this assumption about the accuracy of clinical predictions of violence concluded that "psychiatrists and psychologists are accurate in no more than one out of three predictions of violent behavior over a several-year period among institutionalized populations that had both committed violence in the past (and thus had high base rates for it) and who were diagnosed as mentally ill."[63]

Little has transpired in the intervening decades to increase confidence in the ability of psychologists or psychiatrists, using their

[61] See Barbara D. Underwood, Law and the Crystal Ball: Predicting Behavior with Statistical Inference and Individualized Judgment, 88 Yale L.J. 1408, 1420–22 (1979).
[62] Christopher Slobogin, Dangerousness and Expertise, 133 U. Pa. L. Rev. 97, 126 (1984).
[63] John Monahan, The Clinical Prediction of Violent Behavior 47–49 (1981).

unstructured clinical judgment, to accurately assess violence risk.[64] Only two studies of the validity of clinicians' predictions of violence in the community have been published in the past twenty years. One reviewed court-ordered pre-trial risk assessments and found that thirty-nine percent of the defendants rated by clinicians as having a "medium" or "high" likelihood of being violent to others were reported to have committed a violent act during a two-year follow-up, compared to twenty-six percent of the defendants predicted to have a "low" likelihood of violence. This is a statistically significant difference, but a small one in absolute terms.[65]

In the second study, the researchers took as their subjects male and female patients being examined in the acute psychiatric emergency room of a large civil hospital.[66] Psychiatrists and nurses were asked to assess potential patient violence to others over the next six-month period. Patients who elicited professional concern regarding future violence were moderately more likely to be violent after discharge (fifty-three percent) than were patients who had not attracted such concern (thirty-six percent). In other words, of the patients predicted to be violent by the clinicians, one-in-two later committed a violent act, while of the patients predicted to be safe, one-in-three later committed a violent act.

Despite the existence of such modest scientific support, courts repeatedly have held that clinical predictions of violence are sufficiently valid to be legally admissible as scientific evidence.[67] In recent years, however, the modest scientific support for the validity of clinical predictions of violence has motivated social scientists to explore an alternative to clinical prediction, namely, the use of statistical or "actuarial" risk assessment.

[64] See generally John Monahan, The Scientific Status of Research on Clinical and Actuarial Predictions of Violence, *in* 1 Modern Scientific Evidence: The Law and Science of Expert Testimony § 9-2.0, at 423 (David L. Faigman et al. eds., 2002).

[65] Diana Sepejak et al., Clinical Predictions of Dangerousness: Two Year Follow-up of 408 Pre-Trial Forensic Cases, 11 Bull. Am. Acad. Psychiatry & L. 171 (1983).

[66] Charles W. Lidz et al., The Accuracy of Predictions of Violence to Others, 269 J. Am. Med. Ass'n 1007 (1993).

[67] See 1 Modern Scientific Evidence: The Law and Science of Expert Testimony § 9-1.0, at 411 (David L. Faigman et al. eds., 2002); John Monahan, Violence Risk Assessment: Scientific Validity and Evidentiary Admissibility, 57 Wash. & Lee L. Rev. 901, 915–16 (2000). But see Erica Beecher-Monas & Edgar Garcia-Rill, Danger at the Edge of Chaos: Predicting Violent Behavior in a Post-*Daubert* World, 24 Cardozo L. Rev. 1845 (2003).

2. Actuarial Prediction

The general superiority of actuarial over clinical risk assessment in the behavioral sciences has been known for half a century.[68] Professors William Grove and Paul Meehl provide the most recent review.[69] They located 136 empirical studies comparing clinical and actuarial prediction and found they overwhelmingly support the superiority of the latter over the former. (In only eight of the 136 studies was clinical prediction favored.) Their conclusion: "We know of no social science controversy for which the empirical studies are so numerous, varied, and consistent as this one."[70]

Unfortunately, the tools for implementing the knowledge that actuarial prediction is generally more accurate than clinical prediction had never been developed in the context of predicting violent behavior. In the past several years, however, a number of violence risk assessment tools have become available, and courts[71] as well as

[68] See generally Paul E. Meehl, Clinical Versus Statistical Prediction: A Theoretical Analysis and a Review of the Evidence (1954); see also John A. Swets et al., Psychological Science Can Improve Diagnostic Decisions, 1 Psychol. Sci. Pub. Int. 1, 10–11 (2000).

[69] William M. Grove & Paul E. Meehl, Comparative Efficiency of Informal (Subjective, Impressionistic) and Formal (Mechanical, Algorithmic) Prediction Procedures: The Clinical–Statistical Controversy, 2 Psychol. Pub. Pol'y & L. 293 (1996).

[70] Id. at 318.

[71] Courts are increasingly approving of the use of actuarial instruments when a statute calls for an assessment of violence risk. See United States v. Barnette, 211 F.3d 803, 815 (4th Cir. 2000) (Psychopathy Checklist Revised ("PCL-R") admissible); Lee v. State, 854 So. 2d 709, 711–12 (Fla. Dist. Ct. App. 2003) (Rapid Risk Assessment for Sex Offense Recidivism ("RRASOR"), Minnesota Sex Offender Screening Tool–Revised ("MnSOST–R"), PCL-R, Sex Offender Risk Appraisal Guide ("SORAG"), and Violence Risk Appraisal Guide ("VRAG") admissible); In re Detention of Walker, 731 N.E.2d 994, 996, 998 (Ill. App. Ct. 2000) (RRASOR and PCL-R admissible); State v. Holtz, 653 N.W.2d 613, 616, 619 (Iowa Ct. App. 2002) (RRASOR, Static-99, and MnSOST-R admissible); Goddard v. State, 144 S.W.3d 848, 850, 853 (Mo. Ct. App. 2004) (Static-99 and MnSOST-R admissible); In re Commitment of R.S., 773 A.2d 72, 77, 88 (N.J. Super. Ct. App. Div. 2001) (RRASOR, MnSOST-R, California Actuarial Risk Assessment Tables ("CARAT"), and Registrant Risk Assessment Scale ("RRAS") admissible); Muhammad v. State, 46 S.W.3d 493, 507 (Tex. Crim. App. 2001) (PCL-R admissible); Commonwealth v. Allen, 609 S.E.2d 4, 10, 12 (Va. 2005) (PCL-R and Static-99 admissible); State v. Strauss, 20 P.3d 1022, 1027 (Wash. Ct. App. 2001) (MnSOST-R, RRASOR, and VRAG admissible); State v. Kienitz, 597 N.W.2d 712, 715, 718 (Wis. 1999) (VRAG admissible); see also David L. Faigman & John Monahan, Psychological Evidence at the Dawn of the Law's Scientific Age, 56 Ann. Rev. Psychol. 631, 651 (2005); Bernard E. Harcourt, From the Ne'er-Do-Well to the Criminal History Category: The Refinement of the Actuarial

legislatures[72] have become remarkably receptive to their introduction in evidence. The promise of actuarial prediction of violence appears finally to have arrived.[73] Here, I will briefly describe three of the best-known instruments.

a. Violence Risk Appraisal Guide

The Violence Risk Appraisal Guide ("VRAG") was developed from a sample of over 600 men at a maximum-security hospital in

Model in Criminal Law, 66 Law & Contemp. Probs. 99 (2003); Eric S. Janus & Robert A. Prentky, Forensic Use of Actuarial Risk Assessment with Sex Offenders: Accuracy, Admissibility and Accountability, 40 Am. Crim. L. Rev. 1443 (2003).

[72] In April 2003, Virginia became the sixteenth state to enact a sexually violent predator ("SVP") statute, and the first state to incorporate actuarial risk assessment in such a statute. The statute directs the Department of Corrections to identify ten months before their release all prisoners incarcerated for sexually violent offenses "who receive a score of four or more on the Rapid Risk Assessment for Sexual Offender Recidivism or a like score on a comparable, scientifically validated instrument as designated by the Commissioner." Va. Code Ann. § 37.2-903(C) (2005). The RRASOR is an actuarial instrument consisting of four items: (1) number of prior sex offense convictions or charges (from one to six or more), (2) age at release (twenty-five or older versus younger than twenty-five), (3) victim gender (only females versus any males), and (4) relationship to victim (only related versus any non-related). The latter items within the parentheses receive a higher score than the former items. A total score of four on the RRASOR corresponds to a ten-year recidivism rate of 48.6% while a score of five corresponds to a 73.1% rate. R. Karl Hanson, The Development of a Brief Actuarial Scale for Sexual Offense Recidivism (2004). Between mid-2003 and mid-2005, the RRASOR was administered to 921 convicted sexual offenders in the Virginia Department of Corrections. Fifty-six of these sexual offenders (6.0%) scored four or higher on the RRASOR and therefore were referred for a full SVP evaluation. After this evaluation, the Attorney General filed SVP petitions in forty-two of these cases. Of these forty-two, twenty-two were found to be sexually violent predators and civilly committed to a mental hospital, seventeen had their petitions dismissed either by a judge or jury, and three cases are still pending resolution. Report, W. Stejskal and J. Buffington-Vollum, Memorandum Regarding Proposed Changes to SVP Evaluation Process (Jan. 3, 2006) (on file with author); telephone interview with Dr. Stejskal (Jan. 10, 2006).

[73] Clinical judgment, however, is still necessary to review the risk estimates produced by statistical prediction. According to one group of researchers, "actuarial instruments . . . are best viewed as 'tools' for clinical assessment—tools that support, rather than replace, the exercise of clinical judgment." John Monahan et al., Rethinking Risk Assessment: The MacArthur Study of Mental Disorder and Violence 134 (2001) (citation omitted) [hereinafter Rethinking Risk Assessment]; see also Kevin S. Douglas & Jennifer L. Skeem, Violence Risk Assessment: Getting Specific About Being Dynamic, 11 Psychol. Pub. Pol'y & L. 347, 368–69 (2005).

Canada. All had been charged with serious criminal offenses.[74] Approximately fifty predictor variables were coded from institutional files. The criteria used to develop the instrument were (1) any new criminal charge for a violent offense, or (2) return to the institution for an act that otherwise would have resulted in a criminal charge for a violent offense. The average time at risk in the community after discharge was approximately seven years. A series of analyses identified twelve variables for inclusion in the instrument.[75] These twelve variables were used to place patients into one of nine categories based upon their actuarial risk of future violence. In a recent prospective replication of this research with 467 male forensic patients, eleven percent of the patients who scored in category 1 on the VRAG were later found to commit a new violent act, compared with forty-two percent of the patients in category 5, and 100% percent of the patients in category 9.[76]

b. The HCR-20

The "HCR-20," which consists of twenty ratings addressing Historical, Clinical, or Risk Management variables,[77] is a structured

[74] Grant T. Harris et al., Violent Recidivism of Mentally Disordered Offenders: The Development of a Statistical Prediction Instrument, 20 Crim. Just. & Behav. 315, 317–19 (1993). A variant of the VRAG for use specifically with sexual offenders, the SORAG, has also been developed. VRAG and SORAG scores correlate highly, as would be expected given the overlap in the risk factors. See Vernon Quinsey et al., Violent Offenders: Appraising and Managing Risk 173–78 (2d ed. 2006). For updates on studies using the VRAG and the SORAG, see Replications of the *Violence Risk Appraisal Guide* or *Sex Offender Risk Appraisal Guide* in Assessing Violence Risk, http://www.mhcp-research.com/ragreps.htm (last visited Feb. 3, 2006).

[75] Harris, supra note 74, at 324. The variables were (1) score on the Psychopathy Checklist, (2) separation from parents under age sixteen, (3) victim injury in index offense, (4) DSM–III schizophrenia, (5) never married, (6) elementary school maladjustment, (7) female victim-index, (8) failure on prior conditional release, (9) property offense history, (10) age at index offense, (11) alcohol abuse history, and (12) DSM-III personality disorder. Id. For all variables except numbers 3, 4, 7, and 10 the nature of the relationship to subsequent violence was positive (that is to say, subjects who injured a victim in the index offense, who were diagnosed as schizophrenic, who chose a female victim for the index offense, or who were older, were significantly *less* likely to be violent recidivists than other subjects).

[76] Grant T. Harris et al., Prospective Replication of the *Violence Risk Appraisal Guide* in Predicting Violent Recidivism Among Forensic Patients, 26 Law & Hum. Behav. 377, 385 (2002).

[77] The Historical items are (1) previous violence, (2) young age at first violent incident, (3) relationship instability, (4) employment problems, (5) substance use prob-

clinical guide used to assess violence risk. In one study with prisoners, researchers found that scores above the median on the HCR-20 increased the odds of past violence and antisocial behavior by an average of almost five times.[78] In another study, the HCR-20 was completed for civilly committed patients who were followed for approximately two years after discharge into the community. When the scores were divided into five categories, eleven percent of the patients scoring in the lowest category were found to have committed or threatened a physically violent act, compared to forty percent of the patients in the middle category and seventy-five percent of the patients in the highest category.[79]

c. The Classification of Violent Risk

The most recent development in this area is the creation of the first violence risk assessment software, called the Classification of Violence Risk ("COVR"). This software was constructed from data generated in the MacArthur Violence Risk Assessment Study.[80] In this research, over 1000 patients in acute civil psychiatric

lems, (6) major mental illness, (7) psychopathy, (8) early maladjustment, (9) personality disorder, and (10) prior supervision failure. The Clinical items are (11) lack of insight, (12) negative attitudes, (13) active symptoms of major mental illness, (14) impulsivity, and (15) unresponsive to treatment. The Risk Management items are (16) plans lack feasibility, (17) exposure to destabilizers, (18) lack of personal support, (19) noncompliance with remediation attempts, and (20) stress. See Christopher D. Webster et al., HCR-20: Assessing Risk for Violence 11 (Version 2) (1997).

[78] Kevin S. Douglas & Christopher D. Webster, The HCR-20 Violence Risk Assessment Scheme: Concurrent Validity in a Sample of Incarcerated Offenders, 26 Crim. Just. & Behav. 3, 13–15 (1999).

[79] Kevin S. Douglas et al., Assessing Risk for Violence Among Psychiatric Patients: The HCR–20 Violence Risk Assessment Scheme and the Psychopathy Checklist: Screening Version, 67 J. Consulting & Clinical Psychol. 917, 925 (1999) [hereinafter Kevin S. Douglas et al., Assessing Risk for Violence]; see also Kevin S. Douglas et al., Evaluation of a Model of Violence Risk Assessment Among Forensic Psychiatric Patients, 54 Psychiatric Services 1372 (2003) [hereinafter Kevin S. Douglas et al., Evaluation of a Model]; Nicola S. Gray et al., Prediction of Violence and Self-Harm in Mentally Disordered Offenders: A Prospective Study of the Efficacy of the HCR-20, PCL-R, and Psychiatric Symptomatology, 71 J. Consulting & Clinical Psychol. 443 (2003).

[80] For further information on the MacArthur Violence Risk Assessment Study, which produced the data from which the Classification of Violence Risk software was ultimately developed, see Paul S. Appelbaum et al., Violence and Delusions: Data from the MacArthur Violence Risk Assessment Study, 157 Am. J. Psychiatry 566 (2000); Steven Banks et al., A Multiple-Models Approach to Violence Risk Assess-

facilities were assessed on 134 potential risk factors for violent behavior. Patients were followed for twenty weeks in the community after discharge from the hospital. Measures of violence to others included official police and hospital records, patient self-reports (under a Federal Confidentiality Certificate[81]), and the reports of collaterals (most often family members) who knew the patient best in the community.

To develop a risk assessment instrument, the MacArthur Study relied on "classification tree" methodology. This approach allows many different combinations of risk factors to classify a person as high or low risk. Based on a sequence established by the classification tree, a first question is asked of all persons being assessed. Contingent on the answer to that question, one or another second question is posed, and so on, until each person is classified by the tree into a final "risk class."[82] Using only those risk factors commonly available in hospital records or capable of being routinely assessed in clinical practice,[83] the MacArthur researchers were able to place each patient into one of five risk classes for which the prevalence of violence during the first twenty weeks following dis-

ment Among People with Mental Disorder, 31 Crim. Just. & Behav. 324 (2004); Thomas Grisso et al., Violent Thoughts and Violent Behavior Following Hospitalization for Mental Disorder, 68 J. Consulting & Clinical Psychol. 388 (2000); John Monahan et al., Developing a Clinically Useful Actuarial Tool for Assessing Violence Risk, 176 Brit. J. Psychiatry 312 (2000); Eric Silver et al., Assessing Violence Risk Among Discharged Psychiatric Patients: Toward an Ecological Approach, 23 Law & Hum. Behav. 237 (1999); Henry J. Steadman et al., A Classification Tree Approach to the Development of Actuarial Violence Risk Assessment Tools, 24 Law & Hum. Behav. 83 (2000); see also Rethinking Risk Assessment, supra note 73.

[81] Public Health Service Act § 301(d), 42 U.S.C. § 241(d) (2000); see also National Institutes of Health, Certificates of Confidentiality: Background Information, available at http://grants.nih.gov/grants/policy/coc/background.htm.

[82] This contrasts with the usual approach to actuarial risk assessment, such as the HCR-20 and the VRAG, in which a common set of questions is asked of everyone being assessed and every answer is weighted and summed to produce a score that can be used for purposes of categorization.

[83] The risk factors that emerged most often in the classification trees were the seriousness and frequency of prior arrests, young age, male gender, being unemployed, the seriousness and frequency of having been abused as a child, a diagnosis of antisocial personality disorder, a diagnosis of schizophrenia, whether the individual's father used drugs or left the home before the individual was fifteen years old, substance abuse, lack of anger control, violent fantasies, loss of consciousness, and involuntary legal status. Note that a diagnosis of schizophrenia was associated with a lower risk of violence than other diagnoses (primarily depression and personality disorder).

charge into the community was one percent in the lowest risk class and seventy-six percent in the highest.[84]

B. Common Actuarial Risk Factors for Violence

Each of these recently developed actuarial instruments has relied on a different set of risk factors.[85] But many risk factors are common to all or most of the available instruments.[86] These empirically valid risk factors might be organized into four categories: what the person *is*, what the person *has*, what the person has *done*, and what has been *done to* the person. Here, I summarize what is

[84] See Rethinking Risk Assessment, supra note 73, at 127. More specifically, the rates of violence in the community during the twenty weeks following discharge for each of the five risk categories were 1%, 8%, 26%, 56%, and 76%, respectively. Many more patients were in the lower than in the higher risk categories. For example, 37% of all patients were in the lowest risk category (that is, the category in which 1% of the patients were later violent), and only 7% were in the highest risk category (that is, the category in which 76% of the patients were later violent). Id. at 126–27. A study funded by the National Institute of Mental Health validating the Classification of Violence of Risk ("COVR") on independent samples of patients has recently been published. John Monahan et al., An Actuarial Model of Violence Risk Assessment for Persons with Mental Disorders, 56 Psychiatric Services 810 (2005); see also John Monahan et al., The Classification of Violence Risk, Behavioral Sciences and the Law (forthcoming).

[85] It is important to be clear on what a "risk factor" is and what it is not. To call *A* a risk factor for *B* means two things and only two things. It means that (1) *A* statistically correlates with *B*, and (2) *A* comes before *B* in time. A simple risk factor, in other words, is "a correlate that precedes the outcome," and nothing more. In particular, to call *A* a risk factor for *B* is not in any sense to imply that *A* "caused" *B*. To make this latter assertion—to claim that *A* is what is referred to in epidemiology as a "causal risk factor" for *B*—would require that two additional conditions be met. It would require that (1) *A* is capable of changing, and (2) when *A* changes, *B* changes as well. Helena Chmura Kraemer et al., Coming to Terms With the Terms of Risk, 54 Archives Gen. Psychiatry 337 (1997). One often-raised question is whether in addition to being simple risk factors, the items on actuarial risk assessment instruments are also causal risk factors. The answer is that many of the simple risk factors found on violence risk assessment instruments could not possibly be causal risk factors, if for no other reason than that they are incapable of changing (e.g., gender, past violence).

[86] There is one exception—race or ethnicity—for reasons that will become clear, infra notes 151–56 and accompanying text. In addition, recall that the MacArthur Study relied on "classification tree" methodology, which allows *different* combinations of risk factors to classify a person as high or low risk. Rethinking Risk Assessment, supra note 73, at 10–13. The same risk factors are not applied to each person. Rather, whether a given risk factor applies to a given individual depends on to which branch of the tree his or her previous responses have led. Scores on these risk factors, therefore, cannot simply be summed to produce an estimate of risk.

known about the ability of illustrative risk factors in each of these categories to predict future violence.[87]

1. Individual Risk Factors: What the Person "Is"

Four risk factors that frequently qualify for appearance on an actuarial violence risk assessment instrument pertain to the fundamental characteristics that make someone an "individual": age, gender, race or ethnicity, and personality. I will briefly consider each in turn.[88]

[87] For the prediction of sexual violence, see generally Marnie E. Rice & Grant T. Harris, The Scientific Status of Research on Sexual Aggressors, *in* 1 Modern Scientific Evidence: The Law and Science of Expert Testimony §10.2, at 471 (David L. Faigman et al., eds., 2002) (reviewing these instruments). For the prediction of violence by offenders with mental disorder, see James Bonta et al., The Prediction of Criminal and Violent Recidivism Among Mentally Disordered Offenders: A Meta-Analysis, 123 Psychol. Bull. 123 (1998), who found risk factors for violence among mentally disordered offenders to be remarkably similar to risk factors for violence among the general offender population:

> Criminal history, antisocial personality, substance abuse, and family dysfunction are important for mentally disordered offenders as they are for general offenders. In fact, the results support the theoretical perspective that the major correlates of crime are the same, regardless of race, gender, class, and the presence or absence of a mental illness.

Id. at 139. Likewise, one study concluded that the same criminogenic variables can be used to predict recidivism in both offenders with mental disorders and those without mental disorders. Helen K. Phillips et al., Risk Assessment in Offenders with Mental Disorders: Relative Efficacy of Personal Demographic, Criminal History, and Clinical Variables, 20 J. Interpersonal Violence 833, 845 (2005).

[88] It has become accepted in criminology to distinguish *participation* in violence—whether or not a person engages in violence at all—from the *frequency* with which those who engage in violence commit violent acts. 1 Alfred Blumstein et al., Criminal Careers and "Career Criminals" 1 (1986). Risk factors for participating in violence need not be the same as risk factors for committing violent acts at a high frequency. That is, risk factors for committing a first violent act need not be the same as risk factors for violent recidivism. Demographic variables have been found to be stronger risk factors for participating in violence than for violent recidivism. Id. at 4. Even for recidivism, however, demographic variables continue to be significant risk factors. For example, the recidivism rate of robbery and assault is approximately twice as high among young male offenders as among young female offenders. Id. at 67–68. In the context of the civil commitment of people with mental disorder, prior violence is not a prerequisite for a finding of "dangerous to others," and therefore data on the risk of a patient's initial participation in violence are as relevant to the commitment decision as data on the risk of a patient's repeat violence.

a. Age

Few would dispute the conclusion that Professors Robert Sampson and Janet Lauritsen offered in their definitive review for the National Research Council's Panel on the Understanding and Control of Violent Behavior: "Age is one of the major individual-level correlates of violent offending. In general, arrests for violent crime peak around age 18 and decline gradually thereafter."[89] Age is a risk factor for crimes of sexual violence as well as violence more generally. For example, a recent report from the Office of the Solicitor General of Canada asked the question, "Does the risk of sexual offending decrease with age?" Ten studies from the United States, the United Kingdom, and Canada involving a total sample of over 4600 male sex offenders were reviewed. The answer to the question was as follows:

> On average, the rate of sexual recidivism decreased with age. . . . For rapists, the highest risk age period was between 18 and 25 years, with a gradual decline in risk for each older age period. There were very few old rapists (greater than age 60) and none were known to recidivate sexually.[90]

Age is also a risk factor for violence committed by people with mental disorder. In the MacArthur Study of violence by people between eighteen and forty years old who were in psychiatric facilities, for every one-year increase in a patient's age, the odds[91] that

[89] Robert J. Sampson & Janet L. Lauritsen, Violent Victimization and Offending: Individual-, Situational-, and Community-Level Risk Factors, *in* 3 Understanding and Preventing Violence: Social Influences 1, 18 (Albert J. Reiss & Jeffrey A. Roth eds., 1994) (citations omitted).

[90] Research Summary of R. Karl Hanson, Age and Sexual Recidivism: A Comparison of Rapists and Child Molesters (2001), http://www.psepcsppcc.gc.ca/res/cor/sum/cprs200105_1-en.asp. The report notes that "the patterns were different for rapists, extrafamilial child molesters and intrafamilial child molesters (incest offenders)." For example, extrafamilial child molesters were at their highest risk of recidivism between the ages of 25 and 35, rather than the 18–25 year period at which rapists were at highest risk of recidivism. Id.; see also R. Karl Hanson, Recidivism and Age: Follow-Up Data from 4,673 Sexual Offenders, 17 J. Interpersonal Violence 1046, 1047 (2002).

[91] An odds ratio indicates the number of times the odds are increased for every unit change in the risk factor. For example, if the odds ratio for the effect of male gender on violence is 2.0, then the odds of violence for males are twice as great as the odds of violence for females.

the patient would commit a violent act within the first several months after discharge decreased by twenty percent.[92]

b. Gender

That women commit violent acts at a much lower rate than men is a staple in criminology and has been known for as long as official records have been kept. The earliest major review of this topic, by Professors Eleanor Maccoby and Carol Jacklin, concluded in 1974 that "[t]he sex difference in aggression has been observed in all cultures in which the relevant behavior has been observed. Boys are more aggressive both physically and verbally. . . . The sex difference is found as early as social play begins—at age 2 or 2 1/2."[93] Another major review, by Robert Sampson and Janet Lauritsen concluded in 1993 that "sex is one of the strongest demographic correlates of violent offending . . . . [M]ales are far more likely than females to be arrested for all crimes of violence including homicide, rape, robbery, and assault."[94] Of the 418,964 persons arrested for a violent crime in the United States in 2003 (the latest year for which data are available), 344,435 (82%) were men and 74,529 (18%) were women.[95] While gender differences are sometimes lower for self report than for official report,[96] national crime survey findings closely parallel the arrest record data: 14% of violent offenders were perceived by their victims to be females.[97] For violent offending that is explicitly sexual in nature, the gender disparity is

[92] Rethinking Risk Assessment, supra note 73, at 163.

[93] Eleanor Emmons Maccoby & Carol Nagy Jacklin, The Psychology of Sex Differences 352 (1974).

[94] Sampson & Lauritsen, supra note 89, at 19 (citations omitted); see also Candice Kruttschnitt et al., Women's Involvement in Serious Interpersonal Violence, 7 Aggression & Violent Behav. 529 (2002).

[95] See Sourcebook of Criminal Justice Statistics Online 2003, tbl.4.8.2003 (31st ed.), available at http://www.albany.edu/sourcebook/ [hereinafter Sourcebook]. Violent crimes include murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Id.

[96] See Darrell Steffensmeier & Emilie Allan, Gender and Crime: Toward a Gendered Theory of Female Offending, 22 Ann. Rev. Soc. 459, 463 (1996).

[97] See Lawrence A. Greenfeld & Tracy L. Snell, Women Offenders: Bureau of Justice Statistics Special Report (1999).

overwhelming: of the 18,446 people arrested for forcible rape in 2003, 18,199 were men (99%) and 247 (1%) were women.[98]

c. Race

Most of the research on race and violence has focused on differences between whites and African Americans.[99] African Americans accounted for approximately twelve percent of the American population in 2003[100] and for thirty-seven percent of the people arrested for violent crime.[101] African American youths under eighteen years of age accounted for fifteen percent of the American juvenile population and fifty-nine percent of the youths arrested for robbery.[102] In a well-known study, Professor Michael Hindelang investigated the extent to which the over-representation of African Americans in arrest statistics for violent crime was due to the differential *involvement* of African Americans in violence as opposed to the differential *selection* of African Americans for arrest by the police.[103] He compared FBI national arrest data with data from the National Victimization Panel, a large-scale survey done in conjunction with the United States Census Bureau that asks crime victims

[98] Sourcebook, supra note 95, at tbl.4.8.2003. Among people with serious mental disorder, the gender ratio in violence is less pronounced than it is among the general population, but still very significant: In the MacArthur Study, the odds that a male patient would commit a violent act within several months after discharge from the hospital were fifty-one percent higher than the odds that a female patient would do so. Rethinking Risk Assessment, supra note 73, at 163; see also Pamela Clark Robbins et al., Mental Disorder, Violence, and Gender, 27 Law & Hum. Behav. 561 (2003).

[99] See also Panel on the Understanding & Control of Violent Behavior, 1 Understanding and Preventing Violence 71 (Albert Reiss & Jeffrey Roth eds., 1993) ("Other minorities are also overrepresented among all arrestees and among those arrested for violent crimes. Particularly striking is the relatively high representation of American Indians and Alaska natives, especially for aggravated and other assaults.").

[100] U.S. Census Bureau, Census 2000, Table 1: Population by Race and Hispanic or Latino Origin, for All Ages and for 18 Years and Over, for the United States (2000).

[101] Sourcebook, supra note 95, at tbl.4.10.2003.

[102] Darnell F. Hawkins et al., Race, Ethnicity, and Serious Juvenile Offending, *in* Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions 30, 34 (Rolf Loeber & David P. Farrington eds., 1998). The authors note that "recent studies of violence . . . report that racial differences in rates of violence may be largely a function of differences across races in levels of socioeconomic well-being." Id. at 42. In terms proposed by Kraemer et al., supra note 85, this would mean that race is a simple risk factor, and not a causal risk factor, for violence.

[103] Michael J. Hindelang, Race and Involvement in Common Law Personal Crimes, 43 Am. Soc. Rev. 93, 94 (1978).

about the perceived characteristics of their offenders. While some evidence of differential selection was found, Hindelang concluded that the "data for rape, robbery, and assault are generally consistent with official data on arrestees and support the differential involvement hypothesis."[104]

As expressed more recently and colloquially by the Reverend Jesse Jackson: "There is nothing more painful to me at this stage in my life than to walk down the street and hear footsteps and start thinking about robbery—then look around and see somebody white and feel relieved."[105]

Among people with serious mental disorder, the racial ratio in violence is less pronounced, but still significant: In the MacArthur Study, the odds that a patient who was African American would commit a violent act within several months after discharge from the hospital were eighty-five percent higher than the odds that a patient who was white would do so.[106] Since the vast majority of this violence came from the patients' own self-report, official bias in arrest or hospitalization practices cannot account for this difference.

d. Personality

A wide variety of components of what psychologists would call "personality"[107] and what the Federal Rules of Evidence refer to as "character"[108] has been empirically linked to the commission of violent acts.[109] One comprehensive review concluded that "a constellation of related psychological characteristics including hyperactivity, attention or concentration deficits, impulsivity, and risk taking has revealed . . . consistent predictions of violence."[110] For example, a

[104] Id. at 104.

[105] Stuart Taylor, Jr., Cabbies, Cops, Pizza Deliveries, and Racial Profiling, 32 Nat'l J. 1891, 1892 (2000).

[106] Rethinking Risk Assessment, supra note 73, at 163 (the unstandardized odds ratio reported in Monahan et al. of 0.54 for being white is equivalent to an unstandardized odds ratio of 1.85 for being African American (1.0/0.54 = 1.85)).

[107] See, e.g., Randy Larsen & David Buss, Personality Psychology (2002).

[108] Fed. R. Evid. 404.

[109] See, e.g., Donald G. Dutton, The Abusive Personality: Violence and Control in Intimate Relationships 6–11 (1998) (discussing abnormal personality traits and characteristics of abusive husbands).

[110] J. David Hawkins et al., A Review of Predictors of Youth Violence, *in* Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions 106, 112 (Rolf Loeber & David P. Farrington eds., 1998).

study in Sweden found that boys who were rated as restless and who had difficulty concentrating at age thirteen were five times more likely than other boys to be arrested for a violent crime by age twenty-six.[111]

One facet of personality that appears to be closely associated with violence is an individual's proneness to experience anger and his or her ability to control its expression. According to Professor Raymond Novaco, the preeminent scholar in this area,

> [o]ne aspect of anger that influences the probability of aggression is its degree of intensity. The higher the level of arousal, the stronger the motivation for aggression, and the greater the likelihood that inhibitory controls will be overridden. Strong arousal not only impels action, it impairs cognitive processing of aggression-mitigating information. A person in a state of high anger arousal is perceptually biased toward the confirmation of threat, is less able to attend to threat-discounting elements of the situation, and is not so capable of reappraising provocation cues as benign.[112]

2. Clinical Risk Factors: What the Person "Has"

Three diagnosable risk factors that increase a person's risk for committing future violence include major mental disorder, personality disorder, and substance abuse disorder.

a. Major Mental Disorder

A large and growing body of epidemiological literature on major mental disorder—schizophrenia, major depression, and bipolar disorder—as a risk factor for violence was summarized in the 2002 edition of *Modern Scientific Evidence* to the following effect:

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[111] Id. at 113.

[112] Raymond W. Novaco, Anger, *in* 1 Encyclopedia of Psychol. 170, 171 (Alan E. Kazdin ed., 2000); see also Dale E. McNiel et al., The Relationship Between Aggressive Attributional Style and Violence by Psychiatric Patients, 71 J. Consulting & Clinical Psychol. 399, 402 (2003). In the MacArthur Study, a one-standard-deviation increase in a patient's score on the Novaco Anger Scale raised the odds of committing a violent act within several months after discharge by fifty-two percent. See Rethinking Risk Assessment, supra note 73, at 163.

> The data . . . which have only become available since 1990, fairly read, suggest that whether the measure is the prevalence of violence among the disordered or the prevalence of disorder among the violent, whether the sample is people who are selected for treatment as inmates or patients in institutions or people randomly chosen from the open community, and no matter how many social and demographic factors are statistically taken into account, there appears to be a greater-than-chance relationship between mental disorder and violent behavior. Mental disorder may be a statistically significant risk factor for the occurrence of violence.[113]

Much clinical lore attests to the relationship between a diagnosis of schizophrenia and the occurrence of violence. It is important, however, to consider relative rather than absolute rates. For example, people with the diagnosis of schizophrenia may have a *lower* rate of violence than people with other diagnoses, yet have a *higher* rate of violence than people with no diagnosis at all. Indeed, this is exactly what was found in the MacArthur Study: 8.7% of the patients who had a diagnosis of schizophrenia committed at least one violent act during the first ten weeks after discharge, a figure lower than the 10.7% violence rate of the patients with a diagnosis of major depression, but higher than the 4.6% violence rate of a comparison group of people without mental disorder living in the same communities.[114]

b. Personality Disorder

A "personality disorder" is defined in the fourth edition of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders ("DSM-IV") as "an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture . . . is inflexible and pervasive . . . leads to clinically significant distress or impairment . . . is stable and of long duration, and its onset can be traced back at least to adolescence or early adulthood."[115] One condition generally

[113] Monahan, supra note 64, at § 9-2.2.1, at 441.

[114] Data on file with author and also available at http://macarthur.virginia.edu.

[115] Am. Psychiatric Ass'n, Diagnostic and Statistical Manual of Mental Disorders 629 (4th ed. 2000) [hereinafter DSM-IV].

considered to be a personality disorder is "psychopathy"—a cluster of personality traits including manipulativeness, lack of empathy, and impulsivity.[116] Research on psychopathy has advanced considerably over the past decade, with this construct now considered by some to have an "unparalleled" ability to predict future violence in criminal samples.[117] Much of this work has been based on one version or another of the Psychopathy Checklist-Revised ("PCL-R").[118] Studies suggest that the PCL-R is a strong risk factor for violent recidivism among both non-disordered prison inmates[119] and mentally disordered offenders.[120] For example, Professor Kevin Douglas and his colleagues assigned scores on the PCL-R to patients civilly and involuntarily committed in the hospital, assessing the measure's ability to predict community violence over an average two-year period.[121] Following discharge, patients who scored at or above the PCL-R sample median were five times more likely to

[116] Stephen D. Hart et al., Psychopathy as a Risk Marker for Violence: Development and Validation of a Screening Version of the Revised Psychopathy Checklist, *in* Violence and Mental Disorder: Developments in Risk Assessment 81, 81 (John Monahan & Henry J. Steadman eds., 1994). Psychopathy is not, however, among the personality disorders listed in the DSM-IV. Rather, the related construct of "antisocial personality disorder" is included. In the MacArthur Study, a patient with a diagnosis of antisocial personality disorder was over three times more likely than a patient without such a diagnosis to commit a violent act within several months after discharge from the hospital. See Rethinking Risk Assessment, supra note 73, at 166.

[117] Randall T. Salekin et al., A Review and Meta-Analysis of the Psychopathy Checklist and Psychopathy Checklist–Revised: Predictive Validity of Dangerousness, 3 Clinical Psychol.: Sci. & Prac. 203, 211 (1996).

[118] Robert D. Hare, The Hare Psychopathy Checklist-Revised (1991). But see Jennifer L. Skeem et al., Using a Five-Factor Lens to Explore the Relation Between Personality Traits and Violence in Psychiatric Patients, 73 J. Consulting & Clinical Psychol. 454, 462 (2005) (finding that "assessment of normal personality may be useful for risk assessment, in addition to or in place of assessment of psychopathy").

[119] See Martin Grann et al., Psychopathy (PCL-R) Predicts Violent Recidivism Among Criminal Offenders with Personality Disorders in Sweden, 23 Law & Hum. Behav. 205, 214–15 (1999). But see John F. Edens et al., Psychopathy and the Death Penalty: Can the Psychopathy Checklist-Revised Identify Offenders Who Represent "a Continuing Threat to Society"?, 29 J. Psychiatry & L. 433, 445 (2001) (noting the lack of evidence that conducting PCL-R assessments at time of conviction can predict recidivism upon release several decades later).

[120] See Kirk Heilbrun et al., Inpatient and Postdischarge Aggression in Mentally Disordered Offenders: The Role of Psychopathy, 13 J. Interpersonal Violence 514, 518 (1998).

[121] Kevin S. Douglas et al., Assessing Risk for Violence, supra note 79.

commit a physically violent act than those who scored below the median.[122]

c. Substance Abuse Disorder

Thirty-eight percent of all people serving a jail sentence in the United States for the commission of a violent crime were drinking alcohol at the time they committed the crime,[123] and thirty-six percent were under the influence of illegal drugs.[124] Of inmates in federal or state prison serving a sentence for robbery, twenty-seven percent report that they committed the crime to get money to buy drugs.[125] A recent study of juveniles in the Cook County Juvenile Detention Center in Chicago concluded that "[v]irtually all (ninety-four percent) of the youth entering detention had used drugs during their lifetime, and 85.4% had used drugs in the past six months. Two-thirds (66.4%) of detainees tested positive for drugs in urinalysis."[126]

In terms of a full-fledged DSM-IV alcohol or drug abuse disorder, the most careful estimate is that twenty-nine percent of all male jail detainees and fifty-three percent of all female jail detainees could be so diagnosed, a rate which is vastly higher than the prevalence of these disorders in the general population.[127]

In their review for the National Research Council's Panel on the Understanding and Control of Violent Behavior, Professor Klaus Miczek and his colleagues stated, "Alcohol is the drug that is most prevalent in individuals committing violence. . . . Experimental studies have repeatedly demonstrated that alcohol causes an in-

[122] See id. at 924. Apropos of this finding, in the MacArthur Study of civil psychiatric facilities, patients who scored high on psychopathy were almost three times more likely than patients who scored low to commit a violent act within several months after discharge from the hospital. See Rethinking Risk Assessment, supra note 73, at 68.

[123] Doris J. James, U.S. Dep't of Justice, Profile of Jail Inmates, 2002, at 7, tbl.11 (2004).

[124] See Doris James Wilson, U.S. Dep't of Justice, Drug Use, Testing, and Treatment in Jails 1 (2000).

[125] See Office of Nat'l Drug Control Policy, Drug-Related Crime 3 (2000).

[126] Gary M. McClelland et al., Detection and Prevalence of Substance Use Among Juvenile Detainees, Juv. Just. Bull. (U.S. Dep't of Justice, Office of Juvenile Justice and Delinquency Prevention, Washington, D.C.) June 2004, at 10.

[127] Nat'l GAINS Ctr. for People with Co-Occurring Disorders in the Justice Sys., The Prevalence of Co-Occurring Mental Illness and Substance Use Disorders in Jails 1 (2002).

crease in aggressive behavior, in both animals and humans."[128] The pharmacological relationship between certain illegal drugs—notably cocaine and amphetamines—and violence is also clear.[129] People who report to researchers conducting the National Household Survey on Drug Abuse that they used illegal drugs in the past year are nine times more likely than people who did not report using illegal drugs to also report having been arrested and booked on an assault charge during the past year.[130]

3. Historical Risk Factors: What the Person "Has Done"

The principal risk factor for future violence to be found in an individual's life history is the extent to which he or she already has committed violent or other criminal acts.

a. Prior Crime and Violence

Criminologists have repeatedly demonstrated that prior violence and criminality are strongly associated with future violence and criminality. Indeed, no risk factor has been more thoroughly studied and none have generated more reliable results.[131] As many have written, "[a] history of violence has been consistently shown to be the best single predictor of future violent behavior."[132]

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[128] Klaus A. Miczek et al., Alcohol, Drugs of Abuse, Aggression, and Violence, *in* 3 Understanding and Preventing Violence: Social Influences, supra note 89, at 377, 406; see also William Fals-Stewart, The Occurrence of Partner Physical Aggression on Days of Alcohol Consumption: A Longitudinal Diary Study, 71 J. Consulting & Clinical Psychol. 41 (2003).

[129] See David A. Boyum & Mark A.R. Kleiman, Substance Abuse Policy from a Crime-Control Perspective, *in* Crime: Public Policies for Crime Control 331, 334 (James Q. Wilson & Joan Petersilia eds., 2002). In the MacArthur Study, patients with a DSM diagnosis of alcohol or drug abuse or dependence were 2.7 times more likely than patients without such a diagnosis to commit a violent act within several months after discharge from the hospital. See Rethinking Risk Assessment, supra note 73, at 166.

[130] See Drug-Related Crime, supra note 125, at 1–2.

[131] See Alfred Blumstein, Preface *to* 2 Criminal Careers and "Career Criminals" viii (Alfred Blumstein et al., eds.) (1986).

[132] Dale E. McNiel, Empirically Based Clinical Evaluation and Management of the Potentially Violent Patient, *in* Emergencies in Mental Health Practice: Evaluation and Management, 95, 96 (Phillip M. Kleespies ed., 1998); see also Thomas G. Gutheil & Paul S. Appelbaum, Clinical Handbook of Psychiatry and the Law 68 (3d ed. 2000)

For example, an ongoing longitudinal study of boys in Cambridge, England, found a strong correlation between juvenile convictions and adult convictions. Over three-quarters of those with more than four juvenile convictions had four or more adult convictions while eighty-three percent of those without any juvenile offenses had no adult offenses.[133] The same study found that if a male had seven or more prior convictions, the probability of another conviction was ninety percent.[134] Remarkably similar results have been reported in studies conducted in Philadelphia (finding an eighty percent probability of a new arrest with seven or more prior arrests), and in Marion County, Oregon (finding a seventy-four percent probability of a new arrest with five or more prior arrests).[135]

The same strong relationship between prior and subsequent violence has been found specifically for persons with mental illness. For example, presence of a juvenile or adult record has been found to be highly predictive of adult violence among psychiatric patients. Measures of prior offending have included the number of prior arrests for violent crime or sexually violent crime, number of prior convictions, number of prior incarcerations, and patient self-reports of violent incidents.[136]

4. Experiential Risk Factors: What Has Been "Done To" the Person

Two kinds of childhood experiences have been found to be risk factors for whether he or she acts violently as an adult: whether the

("Past violence repeatedly appears as the strongest correlate in actuarial studies of violence and related phenomena.").

[133] See David Farrington, Offending from 10 to 25 Years of Age, *in* Prospective Studies of Crime and Delinquency 17, 23 (Katherine Teilmann Van Dusen & Sarnoff A. Mednick eds., 1983).

[134] Id. at 24.

[135] See Patrick H. Tolan & Deborah Gorman-Smith, Development of Serious and Violent Offending Careers, *in* Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions, supra note 102, at 68, 71.

[136] See Deidre Klassen & William A. O'Connor, Demographic and Case History Variables in Risk Assessment, *in* Violence and Mental Disorder: Developments in Risk Assessment, supra note 116, at 229, 233. In the MacArthur Study, a patient who had recently committed a violent act was 2.3 times more likely than a patient without recent violence to commit another violent act within several months after discharge from the hospital. See Rethinking Risk Assessment, supra note 73, at 164.

individual was raised in a pathological family environment and whether the individual was physically abused.

a. A Pathological Family Environment

It is a widely recognized tenet of developmental psychology that exposure to a pathological family environment as a child is a risk factor for violence committed as an adult. As the National Research Council's Panel on the Understanding and Control of Violent Behavior concludes, "violent offenders tend to have experienced poor parental childrearing methods, poor supervision, and separations from their parents when they were children . . . [T]hey tend to have alcoholic or criminal parents, and they tend to have disharmonious parents who are likely to separate or divorce."[137]

For example, one classic study by Professor Joan McCord followed boys in Cambridge, Massachusetts, for over thirty years. She found that parents' childrearing practices predicted their sons' convictions for violent crimes well into the sons' forties.[138] "The boys who lacked supervision, whose mothers lacked self-confidence, and who had been exposed to parental conflict and to aggression were subsequently more often convicted for personal crimes" as adults.[139] Other studies conducted in Denmark and in Cambridge, England, have found that having a parent arrested for a violent crime is predictive of a child later being convicted of a violent offense.[140]

This association between pathological family environments in childhood and later violence is as true of people with mental disorder as it is of people without it. For example, an adult patient's report that as a child his or her parents fought with people outside the family is strongly associated with the patient's subsequent arrest and re-hospitalization for violence.[141]

[137] Panel on the Understanding & Control of Violent Behavior, supra note 99, at 367–68 (citation omitted).

[138] See Joan McCord, Some Child-Rearing Antecedents of Criminal Behavior in Adult Men, 37 J. Pers. & Soc. Psychol. 1477, 1481–85 (1979).

[139] Id. at 1481.

[140] See Hawkins et al., supra note 110, at 133–34.

[141] See Deidre Klassen & William A. O'Connor, A Prospective Study of Predictors of Violence in Adult Male Mental Health Admissions, 12 Law & Hum. Behav. 143, 152 (1988). In the MacArthur Study, a patient whose father had frequently used drugs during the patient's childhood was 2.4 times more likely than a patient whose father

b. Victimization

Two types of studies exist regarding whether being abused as a child is a risk factor for later violence. One type focuses specifically on subsequent victimization of the children of the abused individual, and the other looks more broadly to subsequent violence toward any victim.

Research on the effects of child abuse on later violent behavior toward one's own children was reviewed as follows:

> [T]he best estimate of the rate of intergenerational transmission [of violence] appears to be 30% ± 5%. This suggests that approximately one-third of all individuals who were physically abused, sexually abused, or extremely neglected will subject their offspring to one of these forms of maltreatment, while the remaining two-thirds will provide adequate care for their children. . . . The rate of abuse among individuals with a history of abuse . . . is approximately six times higher than the base rate for abuse in the general population (5%).[142]

In terms of the effects of being victimized as a child on later crime in general, Professors Cathy Spatz Widom and Michael Maxfield recently reported data from a large study that followed children processed by the courts for having been abused or neglected, and a comparison group of children who had not been abused or neglected. At the time of the follow-up, the subjects' mean age was thirty-two years. They described their findings as follows:

> Of primary interest was the question, "Would arrest histories of those who had been abused or neglected be worse than those with no reported abuse?" The answer . . . was evident: Those who had been abused or neglected as children were more likely to be arrested as juveniles (27 percent versus 17 percent), adults

did not abuse drugs to commit a violent act within several months after discharge from the hospital, and a patient whose mother used drugs was 1.54 times more likely to commit a violent act. Similar effects were obtained for arrest of a patient's father or mother when the patient was a child. See Rethinking Risk Assessment, supra note 73, at 164.

[142] Joan Kaufman & Edward Zigler, Do Abused Children Become Abusive Parents?, 57 Am. J. Orthopsychiatry 186, 190 (1987).

(42 percent versus 33 percent), and for violent crime (18 percent versus 14 percent).[143]

III. A JURISPRUDENCE OF RISK ASSESSMENT: ON WHICH SCIENTIFICALLY VALID RISK FACTORS SHOULD COURTS RELY?

Items such as the ten described above are valid risk factors for the occurrence of violence. Absent jurisprudential concerns, each would be a candidate for inclusion on an actuarial violence risk assessment instrument. Jurisprudential concerns, of course, are not absent. How does one decide which scientifically valid risk factors are admissible in court for assessing violence risk and which are not? The answer will vary according to the legal context in which the violence risk assessment is made, and according to the jurisprudential principles that govern decision making in each context.

A. Criminal Sentencing

The use of risk factors in sentencing must be constrained by the applicable theory of criminal punishment. As we have seen, however, there is no coherent theory of criminal punishment at the federal level or among the states. Rather, the official view is that since both the backward-looking theory of punishment as just deserts and the forward-looking theory of punishment as crime control will result in the same sentences, there is no need to choose between the two jurisprudential rationales.

This fundamental "philosophical problem,"[144] which has vexed federal sentencing since the Sentencing Reform Act of 1984 and which vexes the statutes of many states,[145] need not be resolved in order to address the legitimacy of using given violence risk factors in criminal sentencing. In practice, modern sentencing is either purely retributive, or it is a mix of retributive and crime-control considerations. Retribution deeply colors the implementation of all

[143] Cathy S. Widom & Michael G. Maxfield, U.S. Dep't of Justice, An Update on the "Cycle of Violence" 3 (2001). In the MacArthur Study, patients who had suffered serious childhood abuse were fifty-one percent more likely than those who had not been abused to commit a violent act within several months after discharge from the hospital. See Rethinking Risk Assessment, supra note 73, at 164.

[144] U.S. Sentencing Guidelines Manual § 1A3 (2000).

[145] See supra note 29.

sentencing schemes, including those whose avowed goals include crime control. That is to say, even in those states in which crime control is one of the acknowledged purposes of criminal punishment, "the idea that personal and moral autonomy are important values is still influential."[146] Just as the decision in criminal law of *whether* to punish an individual at all is based on the determination that he or she chose to commit the blameworthy act charged, so too the decision of *how much* to punish an individual is in large part based on the blameworthiness of his or her actions. As Daniel Goodman has stated, "[t]o allow a criminal defendant's sentence to be determined to any degree by his unchosen membership in a given [group] denies the very premise of self-determination upon which our criminal justice system is built."[147] Given this state of affairs, the use of violence risk factors in sentencing—including capital sentencing cases such as *Saldano*—should be limited to those that index the extent or seriousness of the defendant's prior criminal conduct.

Professor Paul Robinson explains that relying even on scientifically validated risk factors for future violence that do not index blameworthiness "would be offensive to a system of just punishment. A person does not deserve more punishment for an offense because he . . . is young, or has no father in his household."[148] Or, one might add, because of anything else a person is (e.g., a gender), anything else a person has (e.g., a disorder), or anything else that has been done to a person (e.g., being abused as a child). Blame attaches to what a person has done. Past criminal behavior is the only scientifically valid risk factor for violence that unambiguously implicates blameworthiness, and therefore the only one that should enter the jurisprudential calculus in criminal sentencing.[149]

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[146] Tonry, supra note 26, at 5.

[147] Daniel S. Goodman, Note, Demographic Evidence in Capital Sentencing, 39 Stan. L. Rev. 499, 521 (1987); see also Underwood, supra note 61, at 1416–17 ("The conflict between prediction and respect for autonomy is most acute when the predicted behavior is strongly and directly subject to individual control. . . . The strong tradition of respect for individual autonomy in criminal law theory may account for a large measure of the resistance to efforts to predict crime for purposes of sentencing and parole.").

[148] Robinson, supra note 17, at 1440.

[149] In some states, *sentencing* is based largely on retributive considerations, but *parole* has an explicit crime-control focus. See John Monahan & Laurens Walker, Social

B. The Civil Commitment of People with Mental Disorder

Although mental health law shares with criminal law an interest in preventing violence by incapacitating those at high risk of committing it, mental health law lacks the jurisprudential considerations of deterrence and retribution that define the criminal sanction.[150] In criminal law, the backward-looking theory of intervention as just deserts and the forward-looking theory of intervention as crime control co-exist in an uneasy tension. There is no such tension in mental health law: Civil commitment is entirely forward-looking. The blameworthiness for committing harmful acts in the past that is central to imposing the criminal sanction is irrelevant to imposing civil hospitalization on persons believed to be at risk of committing harmful acts in the future. Therefore, in contrast to criminal sentencing, the use of violence risk factors in the civil commitment of people with mental disorder need not be limited to those that index blameworthiness and—with one significant legal exception—should be constrained only by considerations of predictive validity.

The sole legal constraint on the use of violence risk factors in civil commitment is the prohibition on those constitutionally suspect classifications whose use the courts will subject to strict Fourteenth Amendment scrutiny, which in this context will be limited to race or ethnicity.[151] Racial classifications, the Supreme Court has stated, "must serve a compelling governmental interest, and must be narrowly tailored to further that interest."[152] A number of circuit courts have directly addressed the issue of risk factors in the context of denying parole,[153] and all have held that using race as a risk factor for violence fails this test. It is difficult to see how a racial

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Science in Law: Cases and Materials 391 (6th ed. 2006), for a discussion of risk factors found admissible in state administrative parole hearings.

[150] United States v. Hendricks, 521 U.S. 346, 361–62 (1997).

[151] While strict scrutiny review also applies to national origin, City of Cleburne v. Cleburne Living Ctr., Inc., 473 U.S. 432, 440 (1985), and to alienage, Graham v. Richardson, 403 U.S. 365, 372 (1971), neither of these factors has been linked to violent behavior. Should national origin or alienage be found to be a risk factor for violence, the same analysis employed here for race and ethnicity would preclude their use in actuarial prediction schemes.

[152] Adarand Constructors, Inc. v. Pena, 515 U.S. 200, 235 (1995).

[153] See White v. Bond, 720 F.2d 1002, 1003 (8th Cir. 1983); Block v. Potter, 631 F.2d 233, 238 (3d Cir. 1980).

classification that repeatedly has been held not to be "narrowly tailored" for the purpose of decision making regarding parole from prison could be found to be "narrowly tailored" for the purpose of decision making regarding discharge from a mental hospital. The modest correlation between race and violence[154] is far from the "most exact connection"[155] that the Court would require to justify the inclusion of race as a risk factor in effectuating these commitments. Excluding race as a predictor variable was, in fact, exactly what the researchers conducting the MacArthur Violence Risk Assessment Study did.[156]

In this regard, race and gender are very differently situated, both constitutionally and empirically. In *J.E.B. v. Alabama ex rel. T.B.*, the Court noted that it consistently has subjected gender-based classifications to heightened scrutiny "in recognition of the real danger that government policies that professedly are based on reasonable considerations in fact may be reflective of 'archaic and overbroad' generalizations about gender . . . or based on 'outdated misconceptions . . . .'"[157] In *United States v. Virginia*,[158] the Court more explicitly stated that, in reviewing classifications based on gender, the reviewing court must determine whether the proffered justification is "exceedingly persuasive."[159] Justice Ginsburg wrote

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[154] In the MacArthur study, the correlation between race and violence was 0.12. Rethinking Risk Assessment, supra note 73, at 163.

[155] *Adarand*, 515 U.S. at 236.

[156] "To avoid any possible misinterpretation of our risk assessment procedures as a form of 'racial profiling,' we removed the variable of race . . . . The revised models without race differed only trivially in accuracy from the original ones that included race." Rethinking Risk Assessment, supra note 73, at 119 n.1. The Classification of Violence Risk software that emerged from the data collected in the MacArthur Violence Risk Assessment Study went a step further: not only is race not analyzed, race is not recorded at all.

[157] 511 U.S. 127, 135 (1994) (citing Schlesinger v. Ballard, 419 U.S. 498, 506–07 (1975); Craig v. Boren, 429 U.S. 190, 198–99 (1976)).

[158] 518 U.S. 515 (1996).

[159] Id. at 531. In a subsequent gender classification case, *Nguyen v. INS*, 533 U.S. 53 (2001), the majority opinion by Justice Kennedy (joined by Rehnquist, Stevens, Scalia, and Thomas), while purporting to apply the test crafted in *United States v. Virginia*, has been accused of decreasing the level of scrutiny both by the four dissenting justices and by some Court observers. As Justice O'Connor (joined by Souter, Ginsburg, and Breyer) noted in *Nguyen*, the majority opinion "represents a deviation from a line of cases in which we have vigilantly applied heightened scrutiny to such [gender] classifications to determine whether a constitutional violation has occurred." *Nguyen*, 533 U.S. at 97. Professor Kathleen Sullivan interprets the *Nguyen* Court as reading "the 'exceed-

for the majority that the State must show "at least that the [challenged] classification serves 'important governmental objectives and that the discriminatory means employed' are 'substantially related to the achievement of those objectives.' The justification must be genuine, not hypothesized or invented post hoc in response to litigation."[160]

The Court did not rule out all gender classifications, however, and recognized that "the two sexes are not fungible; a community made up exclusively of one [sex] is different from a community composed of both."[161]

Tested against the jurisprudential considerations articulated in cases such as *J.E.B.* and *Virginia*, classifying by gender for the purpose of violence risk assessment should have little difficulty surviving an equal protection challenge: The government's police power objective in preventing violence in society is surely "important,"[162] and including gender as a risk factor on an actuarial prediction instrument is "substantially related" to the accuracy with which such an instrument can forecast violence—and therefore assist in its prevention. Gender differences in violence are genuine and not hypothesized, as the research reviewed in Part II demonstrates. And while they may be archaic, they are not outdated: The same gender difference found in the earliest published crime statistics (men made up ninety-one percent of homicide offenders in thir-

ingly persuasive' test as but a synonym for ordinary intermediate scrutiny." Kathleen M. Sullivan, Constitutionalizing Women's Equality, 90 Cal. L. Rev. 735, 741 n.49 (2002). Since I argue here that gender classification in violence risk assessment survives the "exceedingly persuasive" standard, to the extent that *Nguyen v. INS* represents a lowering of that level of scrutiny for gender classifications, my argument becomes even easier to sustain.

[160] United States v. Virginia, 518 U.S. 515, 533 (1996) (citations omitted).

[161] Id. (quoting Ballard v. United States, 329 U.S. 187, 193 (1946)).

[162] See United States v. Hendricks, 521 U.S. 346, 357 (1997) ("It . . . cannot be said that the involuntary civil confinement of a limited subclass of dangerous persons is contrary to our understanding of ordered liberty."); United States v. Salerno, 481 U.S. 739, 748–49 (1987) ("[T]he government may detain mentally unstable individuals who present a danger to the public . . . . [There is a] well-established authority of the government, in special circumstances, to restrain individuals' liberty prior to or even without criminal trial . . . ."); O'Connor v. Donaldson, 422 U.S. 563, 582–83 (1975) ("There can be little doubt that in the exercise of its police power a State may confine individuals solely to protect society from the dangers of significant antisocial acts . . . .") (Burger, C.J., concurring).

teenth century England)[163] are found eight hundred years later in the latest published crime statistics (men make up ninety percent of homicide offenders in twenty-first century America).[164]

Regarding Justice Ginsburg's statement in *United States v. Virginia*, Professors Martin Daly and Margo Wilson have recently reported violence rates for "a community made up exclusively of one" gender. They assembled data from twenty studies of homicides among unrelated people in which the offender and the victim were of the same gender. The studies were conducted in the United States, Canada, England, Mexico, Iceland, India, Nigeria, Uganda, Kenya, and Botswana over periods ranging from the 1920s to the 1990s. Their results showed that male offender/male victim homicides made up ninety-eight percent of the total while female offender/female victim homicides made up the remaining two percent.[165] Regarding violence, it is hard to gainsay the conclusion of Professors Michael Gottfredson and Travis Hirschi's classic, *A General Theory of Crime*: "[G]ender differences appear to be invariant over time and space."[166]

The remaining risk factors for violence—age, personality, major mental disorder, personality disorder, substance abuse disorder, prior crime and violence, a pathological family environment, and victimization—are subject to the lowest level of judicial review.[167] The research reviewed above demonstrates that there is at least a rational basis for classifications based on these risk factors in order to fulfill the police power goals of civil commitment statutes—goals that the Supreme Court has repeatedly upheld.

[163] James Buchanan Given, Society and Homicide in Thirteenth-Century England 134 (1977).

[164] See Sourcebook, supra note 95, at tbl. 4.8.2003 (arrests for murder and nonnegligent manslaughter).

[165] Martin Daly & Margo Wilson, Risk-Taking, Intrasexual Competition, and Homicide, 47 Neb. Symp. on Motivation 1, 16 (2001).

[166] Michael R. Gottfredson & Travis Hirschi, A General Theory of Crime 145 (1990); see also Martin Daly & Margo Wilson, Homicide 146 (1988) ("*The difference between the sexes is immense, and it is universal*. There is no known human society in which the level of lethal violence among women even begins to approach that among men.").

[167] See, e.g., Bd. of Trs. of Univ. of Ala. v. Garrett, 531 U.S. 356, 367 (2001) (finding rational basis review applicable to persons covered by the Americans with Disabilities Act); Kimel v. Bd. of Regents, 528 U.S. 62, 86 (2000) (noting that rational basis is the appropriate level of review for age discrimination claims).

C. The Commitment of Sexually Violent Predators

There remains the difficult question of whether the use of violence risk factors in the civil commitment of sexually violent predators should be jurisprudentially constrained to those that index the individual's prior criminal history—as in criminal sentencing—or should be unconstrained save for the use of race or ethnicity—as in traditional civil commitment.

On the one hand, the Supreme Court clearly held in *Hendricks* and *Crane* that sexually violent predator statutes were *civil* in nature, suggesting that the same violence risk factors allowed in traditional civil commitment are permissible to use in the commitment of sexually violent predators. On the other hand, almost all legal and behavioral science commentators view *Hendricks* and *Crane* as improperly decided.[168] For the commentators, the "civil" designation of the sexually violent predator statute at issue in *Hendricks* and *Crane* was a legislative pretext to circumvent constitutional concerns regarding double jeopardy and the ex post facto application of law.

Hostility by commentators to the unconstrained use of nonsuspect violence risk factors in sexual predator commitments can be understood in large part as hostility to—and an attempt to undermine the operation of—the *Hendricks* and *Crane* decisions themselves. To prohibit the state in sexual predator commitments from using the very risk factors that scientifically permit high-risk classifications to be validly made would eviscerate, via evidentiary means, the statutes that commentators find substantively objectionable.

An alternative approach, advanced here, is to keep jurisprudential considerations about the use of specific violence risk factors apart from substantive questions about the constitutionality of the underlying statutes that trigger risk assessment. If commitment as a sexually violent predator is truly a *civil* commitment—as the Su-

[168] See, e.g., W. Lawrence Fitch & Richard James Ortega, Law and the Confinement of Psychopaths, 18 Behav. Sci. & L. 663 (2000); Grant H. Morris, The Evil That Men Do: Perverting Justice to Punish Perverts, 2000 U. Ill. L. Rev. 1199; Stephen J. Morse, Fear of Danger, Flight from Culpability, 4 Psychol. Pub. Pol'y & L. 250 (1998); Stephen J. Morse, Preventive Confinement of Dangerous Offenders, 32 J.L. Med. & Ethics 56 (2004); Mara L. Krongard, Comment, A Population at Risk: Civil Commitment of Substance Abusers After *Kansas v. Hendricks*, 90 Cal. L. Rev. 111 (2002).

preme Court holds it to be—then the evidentiary use of violence risk factors in such statutes should parallel the use of violence risk factors in traditional civil commitment. Any valid risk factor except race or ethnicity is a candidate for inclusion on an actuarial risk assessment instrument.[169] If, however, a state supreme court, hearing the commentators, found under the state constitution that sexually violent predator commitments were only pretextually civil, and actually function more as a form of extended criminal punishment, then the use of any violence risk factors in such commitments would be moot. In that case, the statutes would clearly violate the double jeopardy clause by punishing the offender twice for the same conduct.[170]

CONCLUSION

In the past, courts rarely have had to address jurisprudential considerations in making violence risk assessments because actuarial instruments with scientific validity in assessing violence risk did not exist. Now, such instruments do exist and are being used with increasing frequency in criminal sentencing, the civil commitment of people with serious mental disorder, and the civil commitment of sexually violent predators. Among the empirically valid risk factors that are candidates for inclusion on these instruments are those that pertain to what the person is (age, gender, race/ethnicity, and personality), what the person has (major mental disorder, personality disorder, and substance abuse disorder), what the person has done (prior crimes and violence), and what has been done to the person (being raised in a pathological family environment and being physically victimized). Jurisprudential considerations in premising legal decisions on these specific risk factors can no

[169] By the same logic, risk assessments of violence for the purpose of committing to a hospital persons acquitted of crimes by reason of insanity would also be unconstrained in their use of valid risk factors, with the exception of race, since blameworthiness plays no part in the judgment. See Foucha v. Louisiana, 504 U.S. 71, 80 (1992) (holding that in the commitment of insanity acquittees, "the State has no . . . punitive interest. As Foucha was not convicted, he may not be punished. . . . Here, Louisiana has by reason of his acquittal exempted Foucha from criminal responsibility . . . .").

[170] Depending on whether the violent predator statute was enacted after the crime for which the offender was originally sentenced, the statute may be unconstitutional for ex post facto reasons as well.

longer be avoided: Their appearance on actuarial prediction instruments makes their use apparent.

In making these unavoidable decisions, I have argued that courts first should categorize the legal context in which each form of violence risk assessment is made. Courts should then apply accepted jurisprudential principles that govern decision making in that context. In criminal law, with its emphasis on blameworthiness for actions taken, these principles dictate that the admissibility of scientifically valid risk factors in sentencing is jurisprudentially constrained to the defendant's prior criminal conduct. In mental health law authorizing the civil commitment of people with serious mental disorder to inpatient or outpatient treatment—a legal determination in which moral blameworthiness plays no part—the use of violence risk factors should be unconstrained, except for the use of classifications subject to strict equal protection scrutiny, which in the case of violence risk assessment is limited to the individual's race or ethnicity.

Finally, in the commitment of sexually violent predators, I have argued that courts should keep jurisprudential considerations about the use of specific violence risk factors apart from substantive questions about the constitutionality of the underlying statutes that trigger risk assessment. If commitment as a sexually violent predator is properly categorized as civil commitment, the admissibility of violence risk factors in implementing such commitments should parallel the admissibility of violence risk factors in traditional civil commitment. Disagreement with the substantive merits of sexually violent predator statutes does not justify depriving decision makers of the only kind of scientific evidence—empirically validated actuarial violence risk assessment—that can effectuate their statutory goals.