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Exceptions: The Criminal Law's Illogical Approach to HIV-Related Aggravated Assaults

Ari Ezra Waldman
New York Law School

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EXCEPTIONS: THE CRIMINAL LAW'S ILLOGICAL APPROACH
TO HIV-RELATED AGGRAVATED ASSAULTS

Ari Ezra Waldman*

ABSTRACT

This Article identifies logical and due process errors in HIV-related aggravated assault cases, which usually involve an HIV-positive individual having unprotected sex without disclosing his or her HIV status. While this behavior should not be encouraged, this Article suggests that punishing this conduct through a charge of aggravated assault—which requires a showing that the defendant’s actions were a means likely to cause grievous bodily harm or death—is fraught with fallacies in reasoning and runs afoul of due process. Specifically, some courts use the “rule of thumb” that HIV can possibly be transmitted through bodily fluids as sufficient evidence for finding that a particular HIV-positive defendant who had unprotected sex did so in a manner likely to cause substantial harm. This leads to two due process errors: (1) the conflation of what is theoretically possible for what is likely, and (2) the use of data about a hypothetical, average, HIV-positive individual as proof of the effects of a particular HIV-positive individual’s behavior. By relying on the rule of thumb that HIV can be transmitted through bodily fluids rather than investigating the unique features of the particular defendant on trial, these jurisdictions violate the Due Process Clause’s requirement of “personal guilt.” Aristotle’s “Fallacy of Accident” is then committed when this generalization is applied to an HIV-positive defendant whose viral load is undetectable, making him an exception to the general rule. After explaining these concepts, this Article identifies various cases from the states and the military that commit these errors. These cases are then compared to similar aggravated assault cases from Canada that do not make the same mistakes and use the kind of particularized proof that is required by both common logic and the Due Process Clause.

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INTRODUCTION

“Birds can fly” and “the number thirteen follows the number twelve” seem like truisms, statements as irrefutable as “the sky is blue.” Of course, some birds cannot fly, thirteen does not follow twelve on a clock and the sky is rarely, if ever, just blue. These so-called truths are just “rules-of-thumb,” shorthand generalizations or easy-to-recall heuristics meant to simplify a complicated world. While rules-of-thumb may be useful in daily life,¹ they can be problematic bases for legal conclusions.

General rules-of-thumb, however, are precisely what certain states and the United States military use to convict HIV²-positive individuals of attempting to spread the virus. Many jurisdictions use the traditional criminal law—specifically, the crime of aggravated assault—to criminalize HIV exposure. Other states have created a separate crime of intentional HIV exposure,³ passed statutes that enhance criminal

* Teaching Fellow, California Western School of Law; J.D., Harvard Law School; A.B., *magna cum laude*, Harvard College. The author would like to thank Professors Art Campbell, Scott Ehrlich, Floralynn Einesman, Jessica Fink and Tim Casey for their insightful and helpful comments both on the draft and at a presentation of this paper before the faculty at California Western School of Law.

¹ There are countless “rules-of-thumb” books counseling readers how to survive this or that life obstacle, including, JAY SILVERMAN ET AL., *RULES OF THUMB: A GUIDE FOR WRITERS* (8th ed. 2009) and ALAN WEBBER, *RULES OF THUMB: 52 TRUTHS FOR WINNING AT BUSINESS WITHOUT LOSING YOUR SELF* (2009).

² HIV, the Human Immunodeficiency Virus, is the virus that causes AIDS, the Acquired Immune Deficiency Syndrome. See R.A. Weiss, *How Does HIV Cause AIDS?*, 260 *SCIENCE* 1273 (1993); Daniel C. Douek et al., *Emerging Concepts in the Immunopathogenesis of AIDS*, 60 *ANN. REV. MED.* 471 (2009).

³ As of 2010, twenty states have HIV-specific statutes that criminalize the knowing or intentional exposure of others to HIV in certain contexts. See ARK. CODE ANN. § 5-14-123 (West 2010); CAL. HEALTH & SAFETY CODE § 120291 (West 2011); FLA. STAT. ANN. § 384.24 (West 2010); GA. CODE ANN. § 16-5-60(c)–(d) (2011); IDAHO CODE ANN. § 39-608 (2010); 720 ILL. COMP. STAT. ANN. § 5/12-16.2 (West 2010); IOWA CODE ANN. § 709C.1 (West 2011); LA. REV. STAT. ANN. § 14:43.5 (2010) (proscribing intentionally exposing another to the “AIDS virus” without knowing and lawful consent); MD. CODE ANN., HEALTH-GEN. § 18-601.1 (LexisNexis 2010); MICH. COMP. LAWS ANN. § 333.5210 (West 2010); MO. ANN. STAT. § 191.677 (West 2010); NEV. REV. STAT. ANN. § 201.205 (LexisNexis 2011); N.J. STAT. ANN. § 2C:34-5 (West 2011); N.D. CENT. CODE § 12.1-20-17 (2009); OHIO REV. CODE ANN. §§ 2903.11(B), 2921.38(C), 2927.13 (LexisNexis 20011) (criminalizing certain behavior by those with the “virus that causes” AIDS); OKLA. STAT. ANN. tit. 21,

penalties when someone who is HIV-positive commits a crime,⁴ or applied general sexually transmitted infection statutes to HIV exposure.⁵ Numerous scholars have traced the development of these criminal laws, analyzed their effectiveness, and detailed doctrinal issues plaguing these statutes, such as overbreadth, vagueness and practical difficulties of proving intent.⁶ And yet, while this scholarship has ably debated the advantages and disadvantages of these various strategies from afar, it has failed to address certain details. In particular, I argue that HIV-positive defendants charged with aggravated assault for risking transmission of HIV are victims of rules-of-thumb: instead of requiring the State to prove that the defendant on trial acted in a manner “likely” to cause substantial harm or death—a necessary element of aggravated assault—some courts rely on the generalized rule of thumb that unprotected sex transmits HIV. At issue in aggravated assault prosecutions is likelihood, and the likelihood of transmission varies from one HIV-positive individual to another. This Article identifies how courts use rules-of-thumb in HIV-related aggravated assault cases and, as a result, argues that the courts run afoul of logic and due process when these cases involve a factually unique defendant.

While my argument is founded upon a respect for the principle that the State must prove every element of an offense beyond a reasonable doubt before securing a conviction, it may be misinterpreted to suggest that I am defending the behavior of those who intentionally try to transmit HIV. That is not the case. Cases like that of Philippe Padieu,⁷ who intentionally tried to infect six women with HIV, and Nushawn

§ 1192.1 (West 2010); S.C. CODE ANN. § 44-29-145 (2010); TENN. CODE ANN. §§ 39-13-109, 68-32-104 (2010); VA. CODE ANN. §§ 18.2-67.4:1, 32.1-289.2 (2010); WASH. REV. CODE § 9A.36.011 (West 2011).

⁴ In some states, committing a sexual crime while infected with HIV can enhance the penalty for that crime. Colorado, for example, imposes “a mandatory term of incarceration of at least three times the upper limit of the presumptive range for the level of offense committed, up to the remainder of the person’s natural life,” for those HIV-positive individuals convicted of a sexual offense that involved penetration of any kind. COLO. REV. STAT. ANN. §§ 18-3-415.5, 18-7-205.7 (West 2010).

⁵ See ALA. CODE § 22-11A-21 (2011); MONT. CODE ANN. § 50-18-112 (2010); N.Y. PUB. HEALTH LAW § 2307 (Consol. 2011); R.I. GEN. LAWS § 23-11-1 (2011); KAN. STAT. ANN. § 21-5424 (2011); W. VA. CODE § 16-4-20 (LexisNexis 2011).

⁶ See, e.g., Leslie Wolf & Richard Vezina, *Crime and Punishment: Is There a Role for Criminal Law in HIV Prevention Policy?*, 25 WHITTIER L. REV. 821 (2004); Amy McGuire, Comment, *AIDS as a Weapon: Criminal Prosecution of HIV Exposure*, 36 HOUS. L. REV. 1787 (1999). For an early discussion of how criminalization began, see Marvin E. Schechter, *AIDS: How the Disease is Being Criminalized*, 3 CRIM. JUST. 6, 6–8 (1988).

⁷ Diane Jennings, *Man Who Spread HIV Gets 45 Years*, DALL. MORNING NEWS, May 30, 2009, at 1B.

Williams, who is alleged to have exposed between 48 and 123 women to HIV,⁸ stir a natural emotional and punitive response. Such anger has led to the implementation of countless criminal transmission of HIV statutes⁹ and laws that punish HIV-positive individuals who intentionally spread the disease or have unprotected sex without informing partners.¹⁰ The relative value of these laws has been discussed by others¹¹ and is, therefore, not my focus. But, the outcry for criminalization has caused overreach. It is the product of a longstanding stigma associated with the HIV-positive population, in general.¹² That stigma is nondiscriminatory—it attaches to the Nushawn Williamses of the world just as it attaches to those who have no intent to harm anyone. We have seen cases where prosecutors were allowed to prove intent to kill or do harm merely by proving that the defendant had unprotected sex while aware of his HIV-positive status, even when the statute calls for more than mere knowledge of status.¹³ And, we have seen aggravated assault

⁸ Lynda Richardson, *Man Faces Felony Charge of Exposing Girl to HIV*, N.Y. TIMES, Aug. 20, 1998, at B3. For a detailed summary of Mr. Williams's story, see Wolf & Vezina, *supra* note 6, at 821–25. Williams is thought to have exposed forty women in Jamestown, N.Y., and between fifty and seventy-five women in New York City. *Id.* at 524.

⁹ See ALA. CODE § 22-11A-21 (2011); CAL. HEALTH & SAFETY CODE § 120291 (West 1996 & Supp. 2004); COLO. REV. STAT. ANN. §§ 18-3-415.5, 18-7-205.7 (West 2004); FLA. STAT. ANN. § 384.24 (West 2002 & Supp. 2004); GA. CODE ANN. § 16-5-60 (West 1998); IDAHO CODE ANN. § 39-608 (1998 & Supp. 2001); 720 ILL. COMP. STAT. ANN. § 5/12-16.2 (West 1993); IOWA CODE ANN. § 709C.1 (West 2003); KAN. STAT. ANN. § 21-5424 (2011); LA. REV. STAT. ANN. § 14:43.5 (1997); MICH. COMP. LAWS ANN. § 333.5210 (West 2001); MO. ANN. STAT. § 191.677 (West 1996 & Supp. 2004); MONT. CODE ANN. § 50-18-113 (2010); N.Y. PUB. HEALTH LAW § 2307 (Consol. 2011); R.I. GEN. LAWS § 23-11-1 (2011); W. VA. CODE § 16-4-20 (2011). Numerous commentators have argued that such laws were passed in haste for political expedience. “HIV-specific statutes have been passed most often as political measures to calm the fears of the populace at the beginning of the epidemic. The hastiness of the drafting of these statutes makes them less than ideal.” Thomas W. Tierney, Comment, *Criminalizing the Sexual Transmission of HIV: An International Analysis*, 15 HASTINGS INT’L & COMP. L. REV. 475, 511 (1992). “[P]olitical pressures on legislators to use the coercive powers of the state to combat the [AIDS] epidemic are unmistakable.” Lawrence O. Gostin, *Public Health Strategies for Confronting AIDS*, 261 JAMA 1621, 1629 (1989).

¹⁰ See Wolf & Vezina, *supra* note 6, at 844–69.

¹¹ See, e.g., *id.*; James B. McArthur, *As the Tide Turns: The Changing HIV/AIDS Epidemic and the Criminalization of HIV Exposure*, 94 CORNELL L. REV. 707 (2009).

¹² Michael L. Closen, *The Decade of Supreme Court Avoidance of AIDS: Denial of Certiorari in HIV-AIDS Cases and Its Adverse Effects on Human Rights*, 61 ALB. L. REV. 897 (1998).

¹³ See, e.g., *State v. Musser*, 721 N.W.2d 734, 741–50 (Iowa 2006). The court found that Mr. Musser possessed intent to harm merely because he engaged in sex, regardless of his belief that he could or could not cause harm. *Id.* The

prosecutions of HIV-positive individuals who had a good faith belief that they could not transmit the disease, had used protection, and had no intent to harm.¹⁴ While the principle of proof beyond a reasonable doubt should apply to even the worst actors, it is particularly troubling that HIV-positive defendants who never intended harm, have been convicted of serious charges without sufficient evidence.

This Article proceeds in five parts. Part I discusses the latest data and understanding of HIV transmission as it relates to determining different HIV-positive individuals' risk of transmission of the disease. This Part identifies heterogeneity with respect to risk of transmission within the HIV-positive population. Part II argues that applying a general rule to a heterogeneous population could result in committing the logical Fallacy of Accident. This Part defines the Fallacy and provides examples in other areas of law. Part III identifies how the Accident Fallacy can victimize certain unique defendants in HIV-related aggravated assaults and discusses how each step in the Accident Fallacy represents a due process violation—the use of generalized proof to prove an element of the crime and the correlative lowering of the government's burden. Part IV finds evidence of these errors in numerous jurisdictions' attempts to use the criminal law to punish the transmission of HIV. This Part also discusses the special case of the military's jurisprudence in this area and identifies two errors in that jurisprudence.¹⁵ Part V looks to Canada's use of its common law as a model for avoiding this logical and constitutional error in the future. Part VI identifies the implications of these errors, cautioning those jurisdictions that remain committed to using the traditional criminal law in this area.

limited proof of intent necessary to convict HIV-positive individuals is striking, but not the discrete subject of this Article. For a discussion of intent and other considerations where the traditional criminal law is used to punish the transmission of HIV, see Kathleen M. Sullivan & Martha Field, *AIDS and the Coercive Power of the State*, 23 HARV. C.R.-C.L. L. REV. 139, 162–72 (1988).

¹⁴ *E.g.*, *United States v. Dacus*, 66 M.J. 235 (C.A.A.F. 2008).

¹⁵ The military criminal justice system is a parallel system of justice created pursuant to the President's executive powers. General courts-martial, the trial courts in the military, are subject to appellate review by the Courts of Criminal Appeal (CCA) of each service (though the Navy and Marine Corp. are covered by one CCA) and the United States Court of Appeal for the Armed Forces (C.A.A.F.), the highest civilian court in the military. C.A.A.F. is an Article I court, with worldwide jurisdiction concurrent with the jurisdiction of the Uniform Code of Military Justice (UCMJ), the military's governing criminal and jurisdictional code. See CHARLES A. SHANOR & L. LYNN HOGUE, NATIONAL SECURITY AND MILITARY LAW IN A NUTSHELL 231–310 (2003) for an introduction to the military criminal system. Where possible and for ease of understanding, terminology unique to military criminal practice has been replaced with civilian criminal practice language.

I. THE SCIENCE OF THE LIKELIHOOD OF TRANSMITTING HIV

Every year researchers discover more data on the spread, progression and treatment of HIV, yet for reasons we can only speculate about, the means of HIV transmission is still the subject of rumor, hearsay and fear. In 1999, the Centers for Disease Control and Prevention (CDC) published a fact sheet that stated, in relevant part, that “HIV is spread by sexual contact with an infected person.”¹⁶ That may be true, but it provides no real guidance. It ignores the significant difference in risk between oral and vaginal intercourse, and ignores the fact that “sexual contact” that does not involve exchanging blood, semen or vaginal fluid poses little to no risk of HIV transmission.¹⁷ It may be the CDC’s evident gloss over the specifics of transmission that causes some to equate the general statement that “HIV is spread by sexual contact” with an absolute truth of universal applicability when it comes to risk of transmission, but despite the CDC’s generalizations, we know much about how and when HIV will spread. Through a series of simple tests and treatments, physicians can distinguish between HIV-positive individuals whose likelihood of transmission of the disease differ markedly.¹⁸

The HIV-positive community is fungible only so far as it is classified as a community distinct from the HIV-negative community. In that regard, HIV is like pregnancy: the status of being pregnant is binary in that a woman is either pregnant or not pregnant and clinicians have tests to determine both pregnancy and HIV status with accuracy.¹⁹ But once

¹⁶ CDC, HIV AND TRANSMISSION 1 (July 1999), available at <http://img.thebody.com/cdc/pdfs/transmission.pdf>.

¹⁷ See Alix R. Rubin, Comment, *HIV Positive, Employment Negative? HIV Discrimination Among Health Care Workers in the United States and France*, 17 COMP. LAB. L. & POL’Y J. 398, 404 (1996).

¹⁸ It is beyond the scope of this paper to discuss HIV in general. For a comprehensive medical analysis, see ROBERT L. MURPHY ET AL., CONTEMPORARY DIAGNOSIS AND MANAGEMENT OF HIV/AIDS INFECTIONS 14–17 (3d ed. 2009).

¹⁹ One of those tests, two-site immunoradiometric assay (IRMA), can detect exceedingly low levels of the placenta-secreted hormone human chorionic gonadotropin (HCG) in a woman’s blood. A second type of assay, an enzyme-linked immunosorbent assay (ELISA), can be used to detect the presence of HIV antibodies. See, e.g., E. G. Armstrong et al., *Use of a Highly Sensitive and Specific Immunoradiometric Assay for Detection of Human Chorionic Gonadotropin in Urine of Normal, Nonpregnant and Pregnant Individuals*, 59 J. CLINICAL ENDOCRINOLOGY & METABOLISM 867, 867–74 (1984) (using an IRMA to detect the presence of HCG in pregnant and nonpregnant women); CECIL MEDICINE § XXIV 2557–60 (L. Goldman & D. Ausiello eds., 2007) (using an ELISA to detect the presence of HIV antibodies); Joon-Sup Yeom, *Evaluation of a New Third-Generation ELISA for the Detection of HIV Infection*, 36 ANNALS CLINICAL & LABORATORY SCI. 73, 73–78 (2006) (using

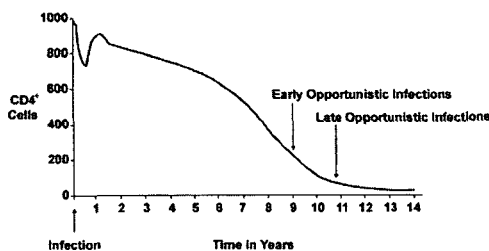
an individual is HIV-positive, his or her particular condition—its gestation, physical manifestation, susceptibility to infection, and risk of transmission, to name just a few factors—takes a unique track that requires more narrowly tailored classifications.

Just like there are stages of pregnancy, there are stages of HIV which include a gestation period where antibodies are not present in bodily fluids.²⁰ There are, in fact, at least four stages of HIV: (1) acute or primary infection, (2) clinically asymptomatic, (3) symptomatic, and (4) progression from HIV to AIDS.²¹ Those stages can be further subdivided based on particular symptoms or lack thereof. For example, one who is classified in the clinically asymptomatic second stage may be entirely asymptomatic or experience various minor symptoms.²² Furthermore, many HIV-positive individuals in all of these categories are prescribed a

the LG Anti-HIV 1/2 Plus ELISA, a new third-generation diagnostic assay for detecting HIV infection).

²⁰ Miguel Goicoechea, M.D., Presentation at University of California, San Diego: Antivirals for Starters, at 6 (Jan. 2009) (showing a common progression of an average CD4 cell count in an untreated HIV-positive individual).

CD4 Cell Count Natural History of Untreated HIV-1 Infection



²¹ MURPHY, *supra* note 18, at 14–17.

²² *The Different Stages of HIV Infection*, <http://www.avert.org/stages-hiv-aids.htm> (last visited Mar. 23, 2011). Also, within any stage, the individual's viral load will vary. See CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC), MMWR REC. & REP. 41(RR-17), 1993 REVISED CLASSIFICATION SYSTEM FOR HIV INFECTION AND EXPANDED SURVEILLANCE CASE DEFINITION FOR AIDS AMONG ADOLESCENTS AND ADULTS (Dec. 18, 1992), available at www.cdc.gov/mmwr/preview/mmwrhtml/00018871.htm; CDC, MMWR REC. & REP. 48(RR-13), GUIDELINES FOR NATIONAL HUMAN IMMUNODEFICIENCY VIRUS CASE SURVEILLANCE, INCLUDING MONITORING FOR HUMAN IMMUNODEFICIENCY VIRUS INFECTION AND ACQUIRED IMMUNODEFICIENCY SYNDROME (Dec. 9, 1999), available at www.cdc.gov/mmwr/preview/mmwrhtml/rr4813a1.htm; World Health Organization, *WHO Case Definitions of HIV for Surveillance and Revised Clinical Staging and Immunological Classification of HIV-Related Disease in Adults and Children*, www.who.int/hiv/pub/guidelines/HIVstaging150307.pdf (last visited Oct. 1, 2010).

series of medications to help manage symptoms and to attempt to put the disease into remission. There are two major medical factors that speak directly to the likelihood that a given HIV-positive individual's actions could transmit the virus: first, the amount of virus in the individual's blood and his body's immunological response, and second, the nature and effectiveness of his particular therapy.

A. VIRAL LOAD AND T-CELL COUNT

There are two commonly used tests that track HIV progression. The CD4⁺ cell count, more commonly known as the T-cell count, has traditionally been the best marker. CD4⁺ tests measure the number of T-cells containing the CD4⁺ receptor. It is this CD4⁺ cell, or lymphocyte, that HIV progressively destroys.²³ Therefore, the lower the CD4⁺ count, the further the disease has progressed and the worse the patient's symptoms are. The T-cell count does not check the presence of HIV, but rather assess the patient's immune system response. When a CD4⁺ count reaches a new low point,²⁴ i.e., when a patient's white cell count has fallen to a point where it is harder to fight infection, the patient may have progressed to a different stage of the disease or may require more aggressive treatment therapies.²⁵ On the other hand, HIV-positive persons who are able to keep viral replication at low levels and maintain high CD4⁺ T-cell counts over a prolonged period of time are considered "long-term nonprogressors."²⁶ Approximately two to five percent of the HIV-positive population meets this definition.²⁷ Because they maintain high CD4⁺ cell counts over many years, long-term nonprogressors deviate from the hypothetical average HIV-positive individual, whose CD4⁺ cell count drops upon infection, increases shortly thereafter and then begins a mostly gradual decline.²⁸ Treatment, risks, and prognoses are all influenced by CD4⁺ cell count, which can range from a low CD4⁺ cell count for symptomatic HIV-positive individuals to a high cell count for long-term nonprogressors.²⁹

²³ THE MERCK MANUAL OF MEDICAL INFORMATION 927 (Robert Berkow et al. eds., 1997).

²⁴ A common threshold is 350 cells per microliter. When a patient has less than 200 cells per microliter, he or she has progressed to AIDS. See Maria G. Essig, *Human Immunodeficiency Virus (HIV) Infection*, REVOLUTION HEALTH (May 8, 2008), <http://www.revolutionhealth.com/conditions/hiv-aids/hiv-aids/overview>.

²⁵ *CD4 Cell Tests*, THEBODY.COM, <http://www.thebody.com/content/art6110.html> (last visited Oct. 4, 2010).

²⁶ MURPHY, *supra* note 18, at 13.

²⁷ *Id.*

²⁸ See Goicoechea, *supra* note 20.

²⁹ According to Dr. Miguel Goicoechea of the University of California, San Diego, HIV-positive individuals fall into at least four categories with respect to their CD4⁺ cell count and its implications for treatment. If a patient is symptomatic, treatment is indicated regardless of his CD4⁺ cell count. If a

The other type of HIV marker tracks the virus's viral count. In an HIV-positive person, the immune system and the virus exist in a balance. The T-cell count marks the immune system while a viral RNA count marks the virus itself.³⁰ A viral load test measures the amount of a virus present in the blood by measuring the amount of HIV-specific RNA.³¹ This is a more accurate, direct way to measure the virus. Studies have shown that HIV viral RNA levels are highly correlated with response to therapy and can predict progression to AIDS.³² They also can assess the extent to which the HIV virus poses a risk to the patient and his or her sexual partners: the lower a patient's viral load, the healthier the patient, the lower the chance of progression from HIV to AIDS, and the lower the probability of transmission.³³

For example, a low viral load is usually between 40 to 500 copies/mL.³⁴ This result usually indicates that HIV is not actively reproducing and that the risk of disease progression and transmission is low. Patients with low viral loads who adhere to their antiretroviral therapies have been shown to reduce their viral loads further, slow disease progression, and lower the risk of transmission through sexual intercourse. One study even determined that such patients could never transmit the disease,³⁵ but those conditions have yet to be replicated.

patient is asymptomatic, but with a CD4⁺ cell count below 200 cells per microliter, treatment is indicated. If a patient is asymptomatic, with a CD4⁺ cell count between 201 and 350 cells per microliter, treatment should be offered to the patient. Finally, if a patient is asymptomatic and has a CD4⁺ cell count above 350 cells per microliter, the need for treatment should be determined on a case-by-case basis based on a variety of individual circumstances. Goicoechea, *supra* note 20, at 9.

³⁰ Viral RNA molecules are "actually tiny pieces of the virus's genetic material, and viral load tests count the number of these RNA pieces." William B. Paxton, *Understanding HIV-1 Viral Load*, VIRAL LOAD (Mar. 20, 2011, 11:30 AM), <http://www.reocities.com/HotSprings/1290/Virload.html>.

³¹ Murphy, *supra* note 18, at 13.

³² *Id.*

³³ Susanna Atia et al., *Sexual Transmission of HIV According to Viral Load and Antiretroviral Therapy: Systematic Review and Meta-Analysis*, 23 AIDS 1397, 1401-02 (2009), available at http://www.who.int/hiv/events/artprevention/attia_sexual.pdf.

³⁴ *HIV Viral Load*, LABTESTSONLINE, http://www.labtestsonline.org/understanding/analytes/viral_load/test.html (last visited Mar. 28, 2011).

³⁵ See P. Vernazza et al., *Les Personnes Séropositives ne Souffrant D'aucune Autre MST et Suivant un Traitement Antirétroviral Efficace ne Transmettent Pas le VIH Par Voie Sexuelle*, 89(5) BULLETIN DES MÉDECINS SUISSES 165 (2008) (Switz.), available at http://www.saez.ch/pdf_f/2008/2008-05/2008-05-089.pdf; *Swiss HIV Experts Claim HIV Patients with Undetectable HIV Who Adhere to Treatment Regimens Cannot Transmit the Virus to Their HIV Negative Partners*, http://www.hivandhepatitis.com/recent/2008/020508_a.html (last visited Oct. 1, 2010).

Viral load tests can also indicate an “undetectable” viral load, i.e., lower than 40 copies/mL.³⁶ Long-term nonprogressors usually have undetectable levels of HIV RNA for much of their lives, but any HIV-positive individual’s viral load can drop to undetectable levels for shorter periods.³⁷ The drops usually coincide with effective treatments and the spikes usually coincide with patient failures to follow protocol or a disease mutation that reduces the effectiveness of an old treatment.³⁸ In either case, while an undetectable viral load does not mean that the patient is cured, it may mean that either the HIV RNA is not present in his or her blood or that the level of HIV RNA is below the threshold needed for detection. Studies indicate that the risk of transmission varies directly with the viral load at all levels.³⁹ The test is cheap, available, highly sensitive, and can efficiently distinguish among HIV-positive individuals as to the likelihood that their actions could transmit the disease.

B. TREATMENT

There are various drugs currently available that tend to impede the progression of HIV, reduce and ameliorate symptoms and improve a patient’s immunoresponse.⁴⁰ The most effective treatment is a cocktail of drugs known together as Highly Active Antiretroviral Therapy (HAART). HAART is the combination of at least three antiretroviral drugs that attack different parts of HIV or stop the virus from entering blood cells, and it has been shown to modulate an HIV-positive patient’s immune system and even reduce his viral load to undetectable levels.⁴¹ But, HAART is not a cure.⁴² Physicians advise all HIV-positive patients that there is no cure and even if treatments eliminate all symptoms, the

³⁶ David P. Wilson et al., *Relation Between HIV Viral Load and Infectiousness: A Model-Based Analysis*, 372 LANCET 314 (2008).

³⁷ MURPHY, *supra* note 18, at 20.

³⁸ See R.A. DeMasi et al., *Correlation Between Self-Reported Adherence to Highly Active Antiretroviral Therapy (HAART) and Virologic Outcome*, 18 ADVANCES THERAPY 163, 163–73 (July–Aug. 2001).

³⁹ Atia, *supra* note 33, at 1401–02.

⁴⁰ See *HIV and Its Treatment—Approved Medications to Treat HIV*, U.S. DEP’T HEALTH & HUMAN SERVICES, http://www.aidsinfo.nih.gov/ContentFiles/ApprovedMedstoTreatHIV_FS_en.pdf.

⁴¹ J.S. Montaner et al., *Association of Highly Active Antiretroviral Therapy Coverage, Population Viral Load, and Yearly New HIV Diagnoses in British Columbia, Canada: A Population-Based Study*, 376 LANCET 532, 532–39 (Aug. 2010).

⁴² Researchers are actively looking for a cure. In 2010, new studies moved us ever closer to a cure or a vaccine. See, e.g., Daniel J. DeNoon, *Discovery May Pave Way to AIDS Vaccine*, WEBMD (July 9, 2010), <http://www.webmd.com/hiv-aids/news/20100709/antibodies-discovery-may-pave-way-to-aids-vaccine>.

virus is likely still present somewhere in the body.⁴³ HAART does not work for everyone and, in fact, there appears to be no clear indication when one cocktail will work, if it will continue to work or which alternate combination would work better.⁴⁴ Nevertheless, studies have shown that the combination of effective HAART and low viral loads has effectively neutralized HIV's ability both to replicate inside the patient's blood and to be transmitted through his bodily fluids to another.⁴⁵

The HIV-positive population, then, is varied with respect to each individual's risk of transmission. For example, there are those who remain asymptomatic and whose conditions never progress, those who experience symptoms for five years and then none for fifty, and those whose only symptom is fatigue. It is rare that these HIV-positive individuals can transmit the virus, even with unprotected sex. And, the scientific and medical tools to identify this heterogeneity or, more specifically, to identify deviations from the average, are readily available.

The risk of transmission is of paramount legal significance. HIV status often becomes an issue at trial specifically because an HIV-positive defendant committed an act that risked the transmission of the virus.⁴⁶ The elements of the crime of aggravated assault, for example, make this clear. The crime is incumbent upon the *likelihood* of harm through a particular means, not the harm itself. The victim's HIV status after the interaction is irrelevant to the prosecution's case. Rather, the likelihood that the defendant could have caused harm is pertinent, and this likelihood varies with a defendant's viral load. Since a viral load test is readily available, there is no need to rely on a general rule of thumb about transmission through bodily fluids. The viral load test, as well as the T-cell count before it, not to mention an effective HAART regimen, can distinguish among the heterogeneous HIV population and find the exceptional cases to which the general rule does not apply.

⁴³ M. Dybul et al., *Guidelines for Using Antiretroviral Agents Among HIV-Infected Adults and Adolescents*, 137 ANNALS INTERNAL MED. 381 (Sept. 2002).

⁴⁴ See Murphy, *supra* note 18, at 16.

⁴⁵ Atia, *supra* note 33, at 1401-02.

⁴⁶ See ALA. CODE § 22-11A-21 (2011); CAL. HEALTH & SAFETY CODE § 120291 (West 1996 & Supp. 2004); COLO. REV. STAT. ANN. §§ 18-3-415.5, 18-7-205.7 (West 2004); FLA. STAT. ANN. § 384.24 (West 2002 & Supp. 2004); GA. CODE ANN. § 16-5-60 (West 1998); IDAHO CODE ANN. § 39-608 (1998 & Supp. 2001); 720 ILL. COMP. STAT. ANN. § 5/12-16.2 (West 1993); IOWA CODE ANN. § 709C.1 (West 2003); KAN. STAT. ANN. § 21-5424 (2011); LA. REV. STAT. ANN. § 14:43.5 (1997); MICH. COMP. LAWS ANN. § 333.5210 (West 2001); MO. ANN. STAT. § 191.677 (West 1996 & Supp. 2004); MONT. CODE ANN. § 50-18-113 (2010); N.Y. PUB. HEALTH LAW § 2307 (Consol. 2011); R.I. GEN. LAWS § 23-11-1 (2011); W. VA. CODE § 16-4-20 (2011); see, e.g., McGuire, *supra* note 6; Schechter, *supra* note 6, at 6-8; Wolf & Vezina, *supra* note 6.

Despite the ability to single out those with exceedingly low risk of transmission, jurisdictions that use the traditional criminal law to criminalize the possible transmission of HIV tend to rely on generalized evidence that refers to the average HIV-positive individual. Some simply rely upon a general rule of thumb that all the State needs to do to satisfy the likelihood of transmission prong of aggravated assault is to introduce into evidence the CDC's fact sheet that states that "HIV is spread by sexual contact." Even where the rule of thumb happens to apply to the particular defendant on trial, principles of due process suggest that such generalized information should not fulfill the State's obligation to prove that the defendant on trial, as opposed to the HIV-positive population as a whole, committed the charged crime. Other courts will even apply the rule of thumb to a case *they know* is unique—one in which the defendant is a long-term nonprogressor. In these jurisdictions, it does not matter that the likelihood of transmission was infinitesimally small because "likelihood" has been interpreted to mean mere "possibility." This makes the unique circumstances of the defendant's situation irrelevant. In other words, these courts commit the Fallacy of Accident.

II. THE ACCIDENT FALLACY

The Accident Fallacy occurs when a general rule is applied to a specific situation in which the rule—because of unique individual facts, or "accidents"—is inapplicable. The mistake occurs when the general rule is applied inappropriately so it misses salient differences in a heterogeneous population and fails to recognize exceptions where they should exist or when a rule of thumb is used to come to over-inclusive conclusions. It has two steps: (1) generalize about a population, and (2) incorrectly use that generalization to describe a unique subset of that population.⁴⁷ For example, the statement "birds can fly" may be true, but it is not always true. There are exceptions: flightless birds, injured birds, or birds whose feet are stuck in gum.⁴⁸ Because of these observable

⁴⁷ See S. MORRIS ENGEL, WITH GOOD REASON: AN INTRODUCTION TO INFORMAL FALLACIES 104–111 (6th ed. 1999) (discussing the Fallacy of Hasty Generalizations, also known as the Accident Fallacy).

⁴⁸ That "birds can fly" has any number of categorical exceptions, like penguins and other flightless birds—ostrich, emu, cassowary, rhea, kiwi, and Inaccessible Island rail are the six other non-extinct flightless birds—and conditional exceptions, like birds with broken wings, or birds with feet stuck in gum or birds that have suddenly developed aviophobia. Therefore, to look at any given bird and assume that it can fly would be a valid use of a rule of thumb heuristic, but it would not necessarily be an accurate assessment of that bird's ability. Nor would it be fair to an injured bird, whose reparable infirmity would be ignored if observed by an obtuse generalizer. The same is true of the number example. The numeral 13 does follow the numeral 12 in sequential counting in base-10 math, but not on 12-hour clocks, in elevators in many American hotels, or in airplanes. See, e.g., Barbara De Lollis, *Some Hotels Don't Skip the 13th Floor Anymore*,

exceptions, flight is not the determinative factor for classifying animals as birds. For example, Galapagos penguins are entitled to the same legal protections due other endangered birds, regardless of their ability to fly.⁴⁹ Rules-of-thumb, then, can be useful shorthand descriptors only when ignoring distinctions or denying heterogeneity in a population is acceptable.

Plato realized this Fallacy when he identified valid exceptions to general rules.⁵⁰ In *The Republic*, he states that one should pay one's debts, except when the circumstances are such that paying the debt would be a uniquely bad thing: "Suppose that a friend when in his right mind has deposited weapons with me and he asks for them when he is not in his right mind, ought I to give them back to him?"⁵¹ The general rule is not wrong *per se*, but rather inappropriately applied when used to describe a particular case that is unique, whether those unique conditions are unknown, rare, or obscure. Some Accident Fallacies are jokes ("white men can't jump"), others are negative stereotypes ("gay men are superficial"). In either case, the Fallacy is a problematic tool for legal reasoning.

*Holt Civic Club v. City of Tuscaloosa*⁵² is a good example of the Accident Fallacy at work in the law. In that case, residents of an unincorporated section on the outskirts of town sought city voting rights, arguing that they had long been subjected to city obligations, but enjoyed none of the correlative rights.⁵³ They defined voting rights as concomitant with the imposition of police and sanitary regulations, criminal court jurisdiction, and the city's professional licensing power. The Supreme Court denied the requested relief, stating that it was impossible to restrict the influence of a city's actions,⁵⁴ but it was entirely rational for a state to delineate geographic boundaries for the purposes of voting and to deny voting rights to those living outside those

USA TODAY (Mar. 8, 2007), http://www.usatoday.com/money/biztravel/2007-03-08-13th-floor-usat_N.htm.

⁴⁹ The U.S. Fish and Wildlife Service lists the Galapagos penguin as endangered, which means it is in danger of extinction within the foreseeable future throughout all or a significant portion of its range. U.S. FISH & WILDLIFE SERV., Galapagos Penguin (*Spheniscus mendiculus*) (Mar. 2, 2011), <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B02M>.

⁵⁰ IRVING M. COPI, INTRODUCTION TO LOGIC 95–96 (5th ed. 1978).

⁵¹ *Id.*

⁵² 439 U.S. 60 (1978).

⁵³ *Id.* at 62, 69.

⁵⁴ *Id.* at 69 ("The imaginary line defining a city's corporate limits cannot corral the influence of municipal actions. A city's decisions inescapably affect individuals living immediately outside its borders. The granting of building permits for high rise apartments, industrial plants, and the like on the city's fringe unavoidably contributes to problems of traffic congestion, school districting, and law enforcement immediately outside the city.").

boundaries.⁵⁵ In so holding, the Court's reasoning was opportunistic. For the purposes of explaining a city's extraterritorial reach, the city's boundary line was "imaginary." For the purposes of establishing voting rights, the boundary was a physical or "geographic" one that defined "the government entity."⁵⁶ This was a logical fallacy. As Justice Brennan noted in his dissent, it may be true that the Court had previously based the extension of city franchise on geographical residency in other cases, but the application of that general rule made no sense in this case. Never before had the Court been faced with a situation in which an unincorporated community, just outside of a city's technical border, had been denied voting rights but was subject to the city's police, sanitary, and licensing powers.⁵⁷ The "accidents" of this case—the unique and well-established relationship between the city and this community—made the application of the general rule unsound.

Courts face such unique situations almost every time a party asks that an exception to a general rule be carved out and, almost as often, they do not commit the Accident Fallacy. The plain error doctrine illustrates this point well. Generally, "a contemporaneous objection to jury instructions must be made at trial."⁵⁸ The plain error doctrine, however, recognizes that some errors, regardless of the quality of defense counsel or a strategic decision not to object, are so abhorrent to principles of justice that the general rule must be put aside.⁵⁹ This exception permits an appellate court to remand for a new trial where both "a highly prejudicial error affect[ed] substantial rights,"⁶⁰ and a miscarriage of justice has occurred or where the court must "preserve the integrity and the reputation of the judicial process."⁶¹ Where the defense failed to object to a judge's failure to instruct the jury on self-defense, for example, the very centrality of that element to the defense's case and the

⁵⁵ *Id.* at 66–68.

⁵⁶ *Id.* at 68–69.

⁵⁷ *Id.* at 87 (Brennan, J., dissenting) ("The criterion of geographical residency is thus entirely arbitrary when applied to this case. [The Court] fails to explain why, consistently with the Equal Protection Clause, the 'government unit' which may exclude from the franchise those who reside outside of its geographical boundaries should be composed of the city of Tuscaloosa rather than of the city together with its police jurisdiction. It irrationally distinguishes between two classes of citizens, each with equal claim to residency (insofar as that can be determined by domicile or intention or other similar criteria), and each governed by the city of Tuscaloosa in the place of their residency.").

⁵⁸ *Virgin Islands v. Smith*, 949 F.2d 677 (3rd Cir. 1991).

⁵⁹ See FED. R. CRIM. P. 52(b) (defining plain error as used in criminal cases where the rule protects against defects that affect a defendant's substantial rights).

⁶⁰ *United States v. Giese*, 597 F.2d 1170, 1199 (9th Cir. 1979).

⁶¹ *United States v. Smith*, 962 F.2d 923, 935 (9th Cir. 1992) (quoting *United States v. Atkinson*, 297 U.S. 157, 160 (1936)).

resulting gravamen of the judge's error may amount to plain error and may warrant a new trial.⁶²

The plain error doctrine can exist because of the ability to distinguish between harmless errors,⁶³ plain errors,⁶⁴ and errors which are not errors at all.⁶⁵ Trial level errors are, therefore, heterogeneous and universal thus application of a general rule would be inappropriate. Where heterogeneity makes it possible to distinguish among members of a group—like birds, legal errors, and HIV-positive criminal defendants—reasoning from general rules can result in specious, illogical, and unjust conclusions.

It should already be evident how this Fallacy applies to certain defendants in HIV-positive aggravated assaults. The general rule that HIV is spread through sexual contact with an infected person may be true, but it fails to account for infected persons who, by virtue of their low viral loads and highly effective HAART regimes, have been found to be virtually unable to transmit HIV during sexual contact. Admittedly, “virtually unable” and “unable” are two different things. To be absolutely certain that someone cannot transmit the disease would require a cure, without which, there is always some possibility of transmission. However, the fact that something is medically *possible* is not sufficient in a legal sense. Aggravated assault requires a means *likely* to cause substantial harm or death. A prosecutor should not be able to use evidence of a statistically insignificant possibility in order to prove likelihood.

III. LOGICAL “ACCIDENT” AS A DUE PROCESS PROBLEM

The Accident Fallacy also raises due process concerns. Implicit in the concept of due process is the requirement that the State prove beyond a reasonable doubt that the particular defendant on trial committed the charged crime.⁶⁶ To do so, prosecutors must prove every element of the crime beyond a reasonable doubt.⁶⁷ Consider two hypothetical proffers of proof for two different crimes: It would be sufficient to prove intent to

⁶² *Virgin Islands*, 949 F.2d at 683.

⁶³ See, e.g., *Neder v. United States*, 527 U.S. 1, 7 (1999) (stating that harmless error review presumptively applies to all errors where objection is made); FED. R. CRIM. P. 52(a).

⁶⁴ See, e.g., *United States v. Olano*, 507 U.S. 725 (1993) (holding that the presence of alternates in jury room not plain error).

⁶⁵ See, e.g., *Gonzalez v. United States*, 553 U.S. 242, 244–45 (2008) (finding no error where magistrate judge presides over *voir dire*).

⁶⁶ *In re Winship*, 397 U.S. 358, 364 (1970) (“[W]e explicitly hold that the Due Process Clause protects the accused against conviction except upon proof beyond a reasonable doubt of every fact necessary to constitute the crime with which he is charged.”).

⁶⁷ *Id.* at 361–64.

cause serious bodily injury if a defendant slashed at his victim with a pocket knife and repeatedly punched his victim's head.⁶⁸ However, recourse to the dubious assumption that all socialists want to overthrow the government would be insufficient to prove that a defendant who attended a Socialist Party-sponsored pro-labor rally was guilty of plotting to overthrow the government for two reasons. First, some socialists may want to overthrow the government, but many would prefer to work within the system and change our social priorities to meet their preferences.⁶⁹ So, to convict a defendant of plotting to overthrow the government based on a general (and ill-informed) rule would ignore those exceptions. Second, the generalized assumption does not prove that the defendant's conduct met any element of the crime of plotting to overthrow the government, thus accepting the generalized assumption relieves the State of its burden of proving that the defendant is actually guilty of the crime with which he is charged.

There are, in fact, two due process problems in many HIV-related aggravated assault cases. One concerns *what* the State must prove and the other concerns *how* the state must prove it. The first problem arose when the State's burden became only to prove mere "possibility" rather than "likelihood" absent any instruction from the legislature. This "Anything is Possible" standard raises due process concerns. Defendants in these cases almost universally concede any arguments on intent and the foundational question of whether HIV qualifies as an instrument of harm. The only element that remains for the prosecution to prove is a question of likelihood of harm vis-à-vis the manner of use and of harm. To permit conviction under a theory of mere possibility is to redefine the likelihood requirement.

The second due process error is in the manner in which the State proves likelihood. *In re Winship* requires the State to prove that the defendant's conduct meets each element of the crime beyond a reasonable doubt.⁷⁰ This necessarily forces the State to distinguish between the defendant and any class of persons to which he belongs because generalizations as to the behavior of that class cannot logically speak to the allegedly culpable behavior of one of its members—unless membership in that class is based upon pertinent individual characteristics. This "Impersonal Guilt" theory stereotypes an entire class and, therefore, cannot establish criminal culpability.

⁶⁸ Commonwealth v. Pandolfo, 446 A.2d 939 (Pa. Super. Ct. 1982).

⁶⁹ See, e.g., Sen. Bernard Sanders, *Sanders Socialist Success*, Bernie Sanders, UNITED STATES SENATE (Mar. 1, 2011, 4:30 PM) <http://sanders.senate.gov/newroom/news/?id=7b6eba9b-67f5-4d8f-bc75-ce63a07035d2> (Sen. Sanders, an Independent from Vermont, identifies himself as a Socialist.).

⁷⁰ 397 U.S. 358 (1970).

A. "ANYTHING IS POSSIBLE" AS A LEGAL STANDARD

The principle that one can only be convicted of a crime if every element of that crime is proven "beyond a reasonable doubt" has always been a part of the bedrock of the criminal law, which, as Justice Brennan explained, was likely why the Court had never been so explicit before *In re Winship*.⁷¹ The Court explicitly laid out this principle in *Winship*⁷² and emphasized various rationales, including the need to balance the gravity of a criminal conviction against the possibility of fact-finding error. Justice Brennan noted that what is at stake in any criminal trial is the defendant's "transcend[ent]" interest in his liberty, and, given the nature of that interest, the reasonable doubt standard ensures that his liberty is not taken away because of a mere mistake.⁷³ But when the burden of persuasion is lowered to the point where a scintilla of evidence would be sufficient, a court would allow convictions despite errors of fact and logic. It would obviate the need for a reasonable doubt standard: there can be no reasonable doubt of anything since anything is possible.

Consider the opposite context—namely, what constitutes reasonable doubt. It seems clear that "anything is possible" has never been a *reasonable* doubt. Judge Posner, in affirming a conviction for an accountant who thought that embezzled funds were tax exempt, found that while it is possible for an experienced accountant to be so willfully

⁷¹ Justice Felix Frankfurter's dissent in *Leland v. Oregon*, 343 U.S. 790 (1952) came close. *Leland* upheld a state law requiring defendants to prove insanity beyond a reasonable doubt. *Id.* at 799. Justice Frankfurter believed that the reasonable doubt standard, which imposed an obligation on the state to prove guilt, was inconsistent with that approach. *Id.* at 802–03 ("[F]rom the time that the law which we have inherited has emerged from dark and barbaric times, the conception of justice which has dominated our criminal law has refused to put an accused at the hazard of punishment if he fails to remove every reasonable doubt of his innocence in the minds of jurors. It is the duty of the Government to establish his guilt beyond a reasonable doubt.") (Frankfurter, J., dissenting).

⁷² The Harvard Law Review Ass'n., Note, *Winship on Rough Waters: The Erosion of the Reasonable Doubt Standard*, 106 HARV. L. REV. 1093, 1093–95 (1992–93). The Note points to three rationales: (1) bringing meaning to the presumption of innocence, (2) embodying the moral weight we give to erroneous convictions, and (3) leveling the playing field between a defendant and the government. A fourth rationale is highlighted in Justice Brennan's majority opinion and Justice Harlan's concurrence—namely, the appreciation of the gravity of a criminal conviction.

⁷³ *Winship*, 397 U.S. at 364, 372 ("There is always in litigation a margin of error, representing an error in factfinding, which both parties must take into account. Where one party has at stake an interest of transcending value—as a criminal defendant his liberty—this margin of error is reduced as to him by the process of placing on the other party the burden of . . . persuading the factfinder . . . of his guilt beyond a reasonable doubt." (quoting *Speiser v. Randall*, 357 U.S. 513, 525–26 (1958))).

obtuse, the possibility was too remote and implausible.⁷⁴ After all, “[a]nything is possible; there are no metaphysical certainties accessible to human reason; but a merely metaphysical doubt . . . is not a reasonable doubt for the purposes of the criminal law.”⁷⁵ This principle does not only exclude the fanciful (“it is possible that I will burst into flames”), but also the realistic, yet remote. In a case involving the unlawful selling of a motor vehicle inspection sticker, testimony of a forgetful witness at trial left open the possibility that the defendant did not sell the sticker even though direct evidence showed the defendant had the sticker in his custody from the beginning.⁷⁶ The possibility was too remote for acquittal: “It is possible to have doubts that are not reasonable.”⁷⁷

If mere possibility cannot survive as a reasonable doubt, it cannot survive as proof beyond a reasonable doubt. After all, there can be no reasonable doubt that anything is possible. And, “anything is possible” cannot survive constitutional scrutiny as a basis for criminal conviction. That makes logical sense. The statement that “anyone could have grabbed the gun from me in the dark before the gun went off”⁷⁸ is neither a reason to exclude anyone as a suspect nor a reason to charge everyone else with the crime. If it were, everyone would be charged with everything, no one would be convicted of anything, and the reasonable doubt standard would have no meaning.

That something may be possible, however, is exactly what certain states and the military courts have accepted as proof beyond a reasonable doubt in cases involving HIV-related aggravated assault. By lowering the burden on the government to prove only that HIV could possibly be transmitted, these jurisdictions have obviated the need for a reasonable doubt standard.⁷⁹ There can be no scintilla of doubt, let alone a

⁷⁴ United States v. Ytem, 255 F.3d 394, 395, 397 (7th Cir. 2001).

⁷⁵ *Id.* at 397 (emphasis in original).

⁷⁶ United States v. Williams, 216 F.3d 1099, 1103 (D.C. Cir. 2000).

⁷⁷ United States v. Delpit, 94 F.3d 1134, 1148 (8th Cir. 1996).

⁷⁸ *Clue* (Paramount Pictures 1985) (paraphrased).

⁷⁹ A different case is posed by statutes, like the one at issue in *State v. Musser*, 721 N.W.2d 734, 745 (Iowa 2006). The Iowa statute criminalizes “the intentional exposure of the body of one person to a bodily fluid of another person in a manner that could result in the transmission of the human immunodeficiency virus.” The Iowa Supreme Court interpreted “could” to mean “possible.” *Id.* In *Musser*, the defendant argued that the statute as written was overbroad and facially vague, but the court rejected those arguments. *Id.* at 746–47. A statute will likely be deemed overbroad if it could interfere with constitutionally protected behavior. *Broadrick v. Oklahoma*, 413 U.S. 601, 612 (1973). The defendant in *Musser* argued that the low “could” threshold meant that the statute impinged on HIV-positive individuals’ freedom of association because it banned conduct, such as sweating on others during a game of basketball or kissing another person, that bears no relation to HIV transmission.

reasonable one, that HIV *can* theoretically be transmitted through sexual intercourse. For that matter, HIV can theoretically be transmitted by oral sex, spitting, biting, or getting scratched by a monkey, but each is less likely than the one before it.⁸⁰

B. GUILT IS PERSONAL

The possibility of conviction pursuant to a mistake is overshadowed by the “certainty that [the defendant] would be stigmatized by the conviction.”⁸¹ This is another possible rationale for the *In re Winship* decision. The reasonable doubt standard reduces the margin for fact-finding error and places the burden of persuasion on the government in

Musser, 721 N.W.2d at 746. The court found the state’s compelling need to stop the spread of HIV overshadowed any marginal imposition on minor freedoms of association. *Id.* Other courts have rejected this argument because the statutes did not involve free speech. *See, e.g.*, *People v. Russell*, 630 N.E.2d 794, 796 (Ill. 1994) (finding not “even the slightest connection” between the case and free speech). As to the void for vagueness argument, Mr. Musser argued that the statute’s failure to define the modes of transmission that are captured by the law means that “anything is possible” is the standard. The court rejected that interpretation, finding the statute clarified by “reference to common knowledge and related statutes.” *Musser*, 721 N.W.2d at 746. It is common knowledge, the court said, that blood, semen, and other bodily fluids can transmit HIV and other statutes referred to those bodily fluids listed by the Centers for Disease Control as further clarification. *Id.* *Musser* involved a statute in which the legislature explicitly created a low possibility standard. In *Weeks v. State*, 834 S.W.2d 559 (Tex. Crim. App. 1992), the court interpreted the statute’s phrase, “tends,” as meaning “could” without any specific instruction from the legislature. And, in *United States v. Dacus*, 66 M.J. 235 (C.A.A.F. 2008), the military courts took an explicit standard, the “natural and probable consequence” test, and lowered it to the “more than merely fanciful, speculative and remote possibility” standard in contravention of the MCM’s instruction. A vagueness challenge may have more success against the statute in *Weeks*. This Article does not address this argument because many states have already rejected such arguments. *See, e.g.*, *People v. Dempsey*, 610 N.E.2d 208, 222–23 (Ill. App. Ct. 1993) (rejecting vagueness challenge to aggravated assault statute because even though the statute did not specifically list prohibited activities, it need only be sufficiently certain “to give a person of ordinary intelligence fair notice” that his conduct was forbidden); *Russell*, 630 N.E.2d at 796 (rejecting a vagueness challenge to a statute with a possibility threshold—prohibiting conduct that “could result in the transmission of HIV”—because it was “pure speculation and conjecture” that the statute could prohibit innocent conduct.).

⁸⁰ *HIV Transmission - Frequently Asked Questions*, AVERT, <http://www.avert.org/hiv-aids-transmission.htm> (last visited Mar. 21, 2011).

⁸¹ *In re Winship*, 397 U.S. 358, 363 (1970).

order to protect the defendant from two independent errors—mistake and stigmatization—both of which are anathematic to due process.⁸²

Stigmatization in the HIV context is evident in two ways. First, by making it easier to convict HIV-positive defendants on aggravated assault charges, conviction pursuant to nonspecific proof devalues *In re Winship*'s due process concern for the gravity of a criminal conviction. Second, permitting this factual mistake necessarily stigmatizes HIV-positive individuals as presumptive criminals. If one HIV-positive individual is considered to be just as infectious as another, all are subsumed under the average transmission rate and that rate is sufficient to prove likelihood of transmission for the purposes of aggravated assault, then merely being HIV-positive fulfills an element of the crime. This stigmatization is not only a product of assigning criminal culpability to the status of being HIV-positive, but it speaks to a salient rationale of the *In re Winship* Court: inherent in due process is that guilt must be "personal."⁸³

The reasonable doubt standard "provides concrete substance for the presumption of innocence"⁸⁴ and animates the correlative moral assumption of the criminal law that conviction cannot be based on being

⁸² *Id.* at 363–64. A closely related rationale is the principle summarized by Justice Harlan's oft-quoted statement that "it is far worse to convict an innocent man than to let a guilty man go free." *Id.* at 372 (Harlan, J., concurring). Justice Harlan built on significant common law history here. See 4 WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND 352 (1769) ("the law holds that it is better that ten guilty persons escape, than that one innocent suffer"); *Coffin v. United States*, 156 U.S. 432, 456 (1895) (stating "it must be very warily pressed, for it is better five guilty persons should escape unpunished than one innocent person should die") (quoting Lord Hale, 2 HALE P. C. 290 (1678)); Jon O. Newman, *Beyond "Reasonable Doubt,"* 68 N.Y.U. L. REV. 979, 981 n.6 (1993) ("I should, indeed, prefer twenty guilty men to escape death through mercy, than one innocent to be condemned unjustly.") (quoting SIR JOHN FORTESCUE, DE LAUDIBUS LEGUM ANGLIAE 65 (Chrimes ed., 1942) (1471)); *id.* at 981 n.7 ("[I]t is better that ninety-nine . . . offenders shall escape than that one innocent man be condemned.") (quoting THOMAS STARKIE, EVIDENCE 756 (1724)). But see JEREMY BENTHAM, A TREATISE ON JUDICIAL EVIDENCE at 197 (M. Dumont ed., Eng. trans. 1981) (1825) ("At first it was said to be better to save several guilty men, than to condemn a single innocent man; others, to make the maxim more striking, fixed on the number ten, a third made this ten a hundred, and a fourth made it a thousand. All these candidates for the prize of humanity have been outstripped by I know not how many writers, who hold, that, in no case, ought an accused to be condemned, unless the evidence amount to mathematical or absolute certainty. According to this maxim, nobody ought to be punished, lest an innocent man be punished.").

⁸³ *Pinkerton v. United States*, 328 U.S. 640, 651 (1946) (Rutledge, J., dissenting).

⁸⁴ *In re Winship*, 397 U.S. at 363.

a bad guy⁸⁵ or being a member of a certain group. Defendants are guilty not because they know, or are related to, known criminals⁸⁶ or because they share a common identity with disfavored groups. In *Bridges v. Wixon*, the Court faced a challenge to a statute that ordered deportation of all aliens affiliated with groups that advocated the violent overthrow of the government.⁸⁷ The Court stopped Bridges' deportation but declined to address the constitutional issues in the case. Justice Murphy would have declared the statute unconstitutional: "The deportation statute completely ignores the traditional American doctrine requiring personal guilt rather than guilt by association The doctrine of personal guilt is one of the most fundamental principles of our jurisprudence."⁸⁸ Similarly, in *Scales v. United States*, though the Court upheld a statute criminalizing membership in the Communist Party, it saw personal guilt as a mandate of due process.⁸⁹ Guilt is personal, the Court held, and the only way vicarious conspiracy liability could meet the requirements of due process was if the *mens rea* of a particular defendant could be implied from the extent of his participation in the Party's criminal activity.⁹⁰

The personal guilt doctrine embodied in the reasonable doubt standard does not protect only those whose associations engage in

⁸⁵ Gerard E. Lynch, *RICO: The Crime of Being a Criminal*, 87 COLUM. L. REV. 920, 936 (1987).

⁸⁶ See, e.g., *Templeton v. United States*, 151 F.2d 706, 707 (6th Cir. 1945) ("We think that the evidence adduced by the cross-examination of appellant and the witnesses supporting his alibi that they were related to Hawk Carter, 'the notorious bootlegger of Sumner County' was not only inadmissible but prejudicial. The fact that appellant and his witnesses were related to Hawk Carter, a reputed bootlegger, was irrelevant not only to the issues, but to the subject matter of their examination. Carter was not shown to have had any connection with the case. The sole purpose of this testimony was to degrade the witnesses in the minds of the jury.").

⁸⁷ 326 U.S. 135 (1945).

⁸⁸ *Id.* at 163 (Murphy, J., concurring).

⁸⁹ 367 U.S. 203 (1961).

⁹⁰ *Id.* at 227–28. This theory of personal guilt has been extended by lower courts in areas outside the criminal law. See *St. Ann v. Palisi*, 495 F.2d 423 (5th Cir. 1974) (striking down a school regulation that suspended students if their parents misbehaved in parent-teacher conferences); *Tyson v. New York City Housing Auth.*, 369 F. Supp. 513 (S.D.N.Y. 1974) (voiding agreements that terminated tenants' public housing leases for the acts of the tenants' adult children); *United States v. One 1971 Ford Truck*, 346 F. Supp. 613, 619 (C.D. Cal. 1972) (applying the notion of "personal guilt" to a case involving the Takings Clause, in which the federal government seized a truck because of the illegal activities of the owner's son). More recently, in *Humanitarian Law Project v. U.S. Dep't of Justice*, 352 F.3d 382 (9th Cir. 2003), the doctrine of personal guilt has been revived to declare unconstitutional statutes prohibiting "material support" to certain terrorist organizations.

criminal activity. Nor does it only have meaning as a counterweight to legislative attempts to criminalize membership in such organizations, as in *Bridges* and *Scales*. It represents a broader recognition that culpability cannot be based on status, identity, or association, but must be based on action. Evidence of identity or status (e.g., as a member of the Students for a Democratic Society (SDS) or as one of millions of Americans who are HIV-positive) is not evidence admissible to prove that one committed a crime. The SDS may have been a radical anti-war group and it may have organized most of the anti-war university protests in the late 1960s, but mere membership in SDS did not prove any element of the crime of assaulting a police officer—a crime with which SDS members were charged during California’s Stop the Draft week.⁹¹

Similarly, HIV-positive individuals charged with aggravated assault for risking transmission of HIV face the risks of both factual mistake and stigmatization when the elements of the crime can be proven with non-specific proof. The average risk of transmission posed by the average HIV-positive man who has a sexual encounter with the average HIV-negative woman does not speak to the particular risk posed by a particular defendant’s sexual encounter. The defendant may have an exceedingly low viral load, which would place him far afield from the hypothetical average. He also may not have had any of the risk factors for making transmission more likely. To ignore these circumstances and to convict based on averages or hypotheticals would be logical error.

Nevertheless, defendants charged with aggravated assault for having unprotected sex while HIV-positive are confronted with this precise due process error. Granted, being HIV-positive is nothing like being an anti-war protestor. But to allow the likelihood element of aggravated assault to be proven without reference to a defendant’s specific risk of transmission is to subject a defendant to guilt by association. Rather than considering separately the likelihood of transmission and the likelihood of harm if transmission were to occur, some courts have looked only to evidence of the latter.⁹² This evidence helped meet the government’s burden on the likelihood prong of aggravated assault but had little to do with the defendant’s actual conduct. It did not prove “personal guilt.” The evidence describes general characteristics attributable to a hypothetical person and symbolic of an entire class. If such evidence can

⁹¹ See FRED HALSTEAD, *OUT NOW! A PARTICIPANT’S ACCOUNT OF THE MOVEMENT IN THE U.S. AGAINST THE VIETNAM WAR*, 341–49 (1978) (providing a brief historical introduction to California’s “Stop the Draft” week).

⁹² See, e.g., *United States v. Johnson*, 30 M.J. 53, 55 (C.M.A. 1990) (noting in passing the lower court’s sole consideration of the likelihood that HIV will develop into AIDS); see also, *United States v. Dacus*, 66 M.J. 235, 238 (C.A.A.F. 2008) (upholding a lower court’s decision to use two different valuations of likelihood, the one for transmission being so low as to find “likely” transmission when the defendant had an undetectable viral load).

prove an element of a crime, then mere membership in that class—regardless of any unique facts that could distinguish a particular individual from the crowd—becomes part of the crime.⁹³

IV. LOGICAL “ACCIDENT” AND DUE PROCESS ERRORS IN THE CRIMINALIZATION OF HIV TRANSMISSION THROUGH THE TRADITIONAL CRIMINAL LAW

It has been almost thirty years since HIV and AIDS first came to the attention of the criminal law.⁹⁴ The prevalence of the disease has raised questions like whether a defendant may be compelled to submit to HIV testing for the purposes of criminal prosecution,⁹⁵ whether HIV test

⁹³ This analysis survives the modern limits that have been placed on the *Winship* doctrine. For a discussion of the narrowing reasonable doubt standard, see Harvard Law Review Ass’n, *supra* note 72, at 1095–09; Irene Merker Rosenberg, *Winship Redux: 1970 to 1990*, 69 TEX. L. REV. 109, 114–17 (1990). By way of example, the Court arguably eroded the reasonable doubt standard in *Patterson v. New York*, 432 U.S. 197 (1977), and *Martin v. Ohio*, 480 U.S. 228 (1987), by deferring to legislatures on what constituted an element of the offense and what constituted an affirmative defense. Under *In re Winship*, as limited by *Patterson* and *Martin*, the government only had to prove beyond a reasonable doubt those elements specifically prescribed by the legislature. But that would not have helped Dacus, for example. In *Dacus*, 66 M.J. at 239 (C.A.A.F. 2008), the military court used a low “more than merely a fanciful, speculative, or remote possibility” standard even though the MCM explicitly stated that likelihood means “the natural and probable consequences” of conduct. *Patterson* also erodes *Winship*’s anti-formalism. *In re Winship* saw through an attempt to arbitrarily distinguish burdens of proof based on whether the defendant was a charged as a juvenile or an adult. Due process applied to proceedings that for all intents and purposes were the same. *In re Winship*, 397 U.S. at 365–67. To relax the proof beyond a reasonable doubt standard based on formal and rather arbitrary lines drawn by state legislatures in *Patterson* and *Martin* seems like a striking departure from *In re Winship*’s substantive holding.

⁹⁴ It is beyond the scope of this Article to provide a detailed history of how HIV and AIDS have affected and changed the criminal law in the last thirty years. For informative summaries, please see Damien Warburton, *Critical Review of English Law in Respect of Criminalising Blameworthy Behavior by HIV+ Individuals*, 68 J. CRIM. L. 55 (2004) (with respect to the laws of Great Britain) and Winifred H. Holland, “HIV/AIDS and the Criminal Law,” 36 CRIM. L.Q. 279 (1993–1994) (with respect to the United States and Canada).

⁹⁵ See, e.g., *Love v. Superior Court*, 226 Cal. App. 3d 736 (Ct. App. 1991) (upholding the constitutionality Penal Code Section 1202.6, which required defendants convicted of solicitation or prostitution to undergo HIV testing based on the “special need” of law enforcement to stop the spread of the AIDS epidemic); *People v. Adams*, 597 N.E.2d 574 (Ill. 1992) (similar). *But see State v. Farmer*, 805 P.2d 200, *corrected*, 812 P.2d 858 (Wash. 1991) (reversing an order requiring defendant, convicted of soliciting and sexually exploiting two juveniles, to submit to HIV testing before sentencing for the purpose of corroborating that he had AIDS at the time he committed the crime since the

results must be disclosed,⁹⁶ whether evidence regarding a defendant's HIV status is admissible during sentencing,⁹⁷ and whether a sexual partner can consent to relations with an HIV-positive individual without knowledge of the latter's HIV status.⁹⁸ Nor has there been a single preferred manner of criminalizing HIV transmission. Some state legislatures have created the crime of "criminal transmission of HIV"⁹⁹

test results could not relate back to the point at which the defendant committed the crime and were, therefore, of no corroborative value).

⁹⁶ See, e.g., *Scroggins v. State*, 401 S.E.2d 13, 22 (Ga. Ct. App. 1990) (concluding that a defendant waives medical privacy, including in regards to his HIV status, when he places his medical status at issue, such as by biting an officer and threatening to transmit HIV). Notably, some jurisdictions have found that HIV test results could be admitted under the business record exception to the hearsay rule, without a chain of custody, where the defendant had been tested voluntarily for the purposes of diagnosis and treatment, rather than for the purposes of prosecution. See, e.g., *Ex parte Dep't of Health & Env. Control*, 565 S.E.2d 293 (S.C. 2002). But see *People v. C.S.*, 583 N.E.2d 726 (Ill. App. Ct. 1991) (holding that HIV-positive test results should not have been disclosed to all attorneys in the county's criminal division in anticipation of bringing appropriate criminal charges against defendant in the future, but these tests could have been disclosed if there was a pending prosecution).

⁹⁷ See, e.g., *Hunter v. State*, 799 S.W.2d 356, 359-60 (Tex. Ct. App. 1990) (finding HIV status admissible during sentencing phase of a trial for aggravated sexual assault of a child where defendant's HIV-positive status could be considered "a circumstance of the offense" and a potential long-term effect of the victim's injury).

⁹⁸ See, e.g., *United States v. Johnson*, 27 M.J. 798 (A.F.C.M.R. 1988) (holding that a victim's consent was no defense to charges of aggravated assault arising out of a sexual encounter between a teenager and an HIV-positive Air Force sergeant).

⁹⁹ See, e.g., ALA. CODE § 22-11A-21(c); ALASKA STAT. § 12.55.155(c)(33); ARK. CODE ANN. § 5-14-123, § 20-15-903; CAL. HEALTH & SAFETY CODE §§ 1621.5, 120290, 120291; CAL. PEN. CODE §§ 647f, 12022.85; COLO. REV. STAT. §§ 18-3-415.5, 18-7-205.7, 18-7-201.7; FLA. STAT. ANN. §§ 381.0041(11)(b), 384.24(2), 775.0877, 796.08(4); GA. CODE ANN. § 16-5-60(c)-(d); IDAHO CODE §§ 39-601, 39-608; ILL. COMP. STAT. § 5/12-16.2; IND. CODE §§ 35-42-1-7, 35-42-2-6(e), 35-42-2-6(f), 35-45-16-2(a)-(b), (d), 16-41-14-17; IOWA CODE § 709C.1; KAN. STAT. ANN. § 21-3435; KY. REV. STAT. ANN. §§ 311.990(24)(b), 529.090(3)-(4); LA. REV. STAT. ANN. §§ 14:43.5, 40:1062; MD. CODE ANN., HEALTH-GEN. § 18-601.1; MICH. COMP. LAWS ANN. § 333.5210; MISS. CODE ANN. §§ 97-27-14(1)-(2); MO. REV. STAT. §§ 191.677, 567.020; MONT. CODE ANN. §§ 50-18-112, 113; NEV. REV. STAT. §§ 201.205, 201.358, 441A.300; N.J. STAT. ANN. § 2C:34-5; N.D. CENT. CODE § 12.1-20-17; OHIO REV. CODE ANN. §§ 2903.11, 2907.24, 2907.25, 2907.241, 2921.38, 2927.13; OKLA. STAT. TIT. 21, §§ 1031, 1192.1; OKLA. STAT. TIT. 63, § 1-519; PA. CONS. STAT. ANN. §§ 2703, 2704, 5902; S.C. CODE ANN. §§ 44-29-145, 44-29-60, 44-29-140; S.D. CODIFIED LAWS §§ 22-18-31, 22-18-33, 22-18-34; TENN. CODE ANN. §§ 39-13-109, 68-10-107, 68-10-101; UTAH CODE ANN. §§ 76-10-1309, 76-5-102.6; VA. CODE ANN. §§ 18.2-67.4:1(A), 32.1-289.2; WASH. REV. CODE ANN. § 9A.36.011.

while other jurisdictions have taken recourse to common law crimes, such as attempted murder or some form of aggravated assault.¹⁰⁰ In the latter case, the specific elements of the crime vary across jurisdictions, but they usually involve some combination of the (1) use of a dangerous weapon (2) in a physical attack (3) in a manner that is likely (4) to cause serious harm or death.¹⁰¹ It is when considering the likelihood element of the crime that certain courts may commit the Accident Fallacy.

This Article studies proof of the likelihood element in HIV-related aggravated assaults in two radically different contexts. The first series of cases involves biting, where a belligerent HIV-positive individual bites another person, usually a law enforcement officer. The second series of cases involves consensual sexual intercourse between an HIV-positive individual and an HIV-negative individual who is unaware of his or her partner's HIV status. In some of these cases, courts commit only the first step toward the Accident Fallacy, i.e., using general rules-of-thumb as evidence. This occurs when the likelihood element is satisfied by recourse to general data about HIV infections without determining if the defendant differs from the norm in some way. In other cases, courts commit the Accident Fallacy by taking a general rule of thumb and inappropriately applying it to a unique situation. This occurs when the defendant proves he deviates from the norm and yet the court still applies the general rule to his case. In both scenarios, due process errors accompany the logical errors.

A. THE BITING CASES

Brock v. State is one in a series of "biting" cases, in which an HIV-positive individual bit his victim.¹⁰² It is also one of a series of cases where the court sought generalized proof of the likelihood prong of the crime, potentially misapplying a rule of thumb to a particular case in the process. While only potential Accident Fallacies, these cases represent real violations of due process.

¹⁰⁰ There are numerous variations to the crime of aggravated assault, including aggravated assault with a deadly weapon, aggravated assault with intent to murder and aggravated sexual assault.

¹⁰¹ See, e.g., ALA. CODE §§ 13A-6-20(a)(1), 13A-1-2(12)) (2010); Uniform Code of Military Justice, 10 U.S.C. § 928(b)(1) (2011).

¹⁰² 555 So. 2d 285 (Ala. Crim. App. 1989). There have apparently been two suspected cases of HIV transmission resulting from biting. In these particular cases, severe tissue tearing and damage were reported in addition to the presence of blood. *HIV Transmission – Frequently Asked Questions*, AVERT, <http://www.avert.org/hiv-aids-transmission.htm#q15> (last visited Aug. 3, 2010). In spite of this rarity, biting cases persist. See, e.g., *State v. Smith*, 621 A.2d 493 (N.J. Super. Ct. App. Div. 1993); *United States v. Sturgis*, 48 F.3d 784 (4th Cir. 1995); *State v. Bird*, 692 N.E.2d 1013 (Ohio 1998).

Brock was a prisoner confined to the AIDS unit of an Alabama correctional facility where, during a routine search for contraband, he bit a prison guard on the arm.¹⁰³ As a result, Brock was charged with attempted murder since he knew that the AIDS virus can be transmitted “through bodily fluids secreted through the mouth.”¹⁰⁴ He was found guilty of the lesser-included offense of first degree assault. In Alabama at the time, the first degree assault statute required the government to prove, in relevant part, that the defendant “cause[d] serious physical injury to any person by means of a deadly weapon or a dangerous instrument.”¹⁰⁵ In dispute in this case was the “dangerous instrument” prong, which was defined as anything that “under the circumstances in which it is used . . . is highly capable of causing death or serious physical injury.”¹⁰⁶

This language is common to many aggravated assault statutes. In Alabama, the “capability” of the weapon to cause great harm is modified or delimited both by “highly” and by “the circumstances in which it is used” in the particular case at hand. Therefore, in order to prove this element of the crime beyond a reasonable doubt, the government must put forth specific evidence that whatever weapon was used in this case was actually used in a way that was highly capable of causing serious harm or death.¹⁰⁷ If the legislature had intended otherwise, it could have crafted a first degree assault statute that omitted the modifier “highly.” In such a statute, the word “weapon” would modify the word “capable,” implying that the proof of capability must be about the weapon itself.¹⁰⁸ In the Alabama statute at issue in *Brock*, the “circumstances in which [the weapon] was used” modified the phrase “highly capable,” suggesting a qualitatively different source of proof.

Even the *Brock* Court recognized this distinction when it noted that Alabama follows the minority view that “depending upon the circumstances of their use,” fists could constitute “deadly weapons” or

¹⁰³ *Brock*, 555 So. 2d at 286.

¹⁰⁴ *Id.* at 286–87.

¹⁰⁵ *Id.* at 287 (citing ALA. CODE § 13A-6-20(a)(1) (2010)).

¹⁰⁶ *Id.* (citing ALA. CODE § 13A-1-2(12) (2010)).

¹⁰⁷ This interpretation has long been standard across jurisdictions. *See, e.g.,* *Medford v. State*, 216 S.W. 175, 177 (Tex. 1919) (“The element of the manner of use of such weapon must always be taken into consideration. A shotgun [fired] at such long range as to make it reasonably apparent that death or serious bodily injury could not result from its use would not be legally a deadly weapon.”).

¹⁰⁸ This aggravated assault formulation is arguably void for vagueness. *See supra* note 79.

“dangerous instruments” for the purposes of first degree assault.¹⁰⁹ Therefore, the specific circumstances that gave rise to the indictment are salient. To the court’s credit, it found that the State failed to prove that Brock used his bite in a way that was highly capable of causing serious physical injury.¹¹⁰ In stating what evidence would have sufficed, however, the court ignored the language of the statute and, if not for the State’s ineptitude, would have allowed the State to commit the Accident Fallacy. In *Brock*, the State did not present any evidence about HIV or AIDS in the form of expert testimony or scientific evidence. The record was simply devoid of any proof, let alone proof beyond a reasonable doubt or proof about Brock’s individual condition. Therefore, the court concluded that “[w]hile AIDS may very well be transmitted through a human bite, there was no evidence to that effect at trial”¹¹¹ It also stated that “before this court, there was absolutely no evidence of the capacity of a human bite to cause . . . serious physical injury.”¹¹² But if evidence that a hypothetical human bite could transmit HIV or AIDS would have sufficed for the purposes of meeting the “highly capable” prong of first degree assault, “the circumstances in which it is used” prong and the individual characteristics of the bite are neglected entirely. The court would have accepted generalized proof, if any existed, of the rule of thumb that HIV can be transmitted through a human bite. Had it applied that general rule to this case, the court might have committed the Fallacy of Accident and lessened the prosecution’s burden by broadening an essential element of the crime.

This would have had two implications. First, the sentence would have changed dramatically. Had the State submitted even some generalized evidence as to the possible relationship between a bite and HIV transmission, Brock would have been convicted of first-degree assault rather than second-degree assault.¹¹³ The former is a class B felony, which carries with it a sentence of not less than two years and not more than twenty years imprisonment,¹¹⁴ along with a fine which was not to exceed \$10,000.¹¹⁵ The punishment for second degree assault is half that.¹¹⁶ Dumb luck saved Brock from a misapplication of the law.

¹⁰⁹ *Brock*, 555 So. 2d at 287 (citing *Hollis v. State*, 417 So. 2d 617, 619 (Ala. Crim. App. 1982) and *Stewart v. State*, 405 So. 2d 402, 405 (Ala. Crim. App. 1981)).

¹¹⁰ *Id.*

¹¹¹ *Id.* at 288 (emphasis added).

¹¹² *Id.* (emphasis added).

¹¹³ The other elements of the crime of first-degree assault were not in serious dispute.

¹¹⁴ ALA. CODE § 13A-5-6 (2010).

¹¹⁵ See *Singleton v. State*, 715 So.2d 233 (1997). Alabama has since revised their maximum fines. See ALA. CODE § 13A-5-11 (2010).

¹¹⁶ *Id.* By comparison, violating Alabama’s criminal transmission of HIV statute, codified at ALA. CODE § 22-11A-21(c) (2010), is a class C

Second, HIV was treated differently than other “deadly instruments.” The court recognized the importance of the particular circumstances in which the defendant used the weapon when it noted that fists could be considered dangerous instruments. In Alabama, fists may only constitute deadly weapons “depending upon the circumstances and manner of their use.”¹¹⁷ But those circumstances were ignored in *Brock* where an HIV-positive defendant’s bite was the weapon. Whatever the reason for this unsubstantiated distinction between how different “weapons” or “instruments” of harm are treated, the discrimination has resulted in a *de facto* lower burden for the prosecution in HIV cases.

A similar error occurred in the Georgia case of *Scroggins v. State*.¹¹⁸ During a violent fracas involving officers, a belligerent Scroggins brought up saliva into his mouth and bit an officer on the forearm, tearing through the officer’s shirt and leaving distinct bite marks on the skin which took ten months to heal.¹¹⁹ A jury convicted him of aggravated assault with intent to murder, and Scroggins appealed, claiming that “there was no evidence the HIV virus can be transmitted by human saliva, . . . [and] there is at best only a ‘theoretical possibility’ the virus can be transmitted” this way.¹²⁰

Scroggins identified the potential for two logical fallacies. At trial, a medical expert testified that while theoretically possible, there had been no documented cases and only two reports of HIV transmission through saliva.¹²¹ Scroggins argued, therefore, that he was the victim of an illogical double whammy where a hasty generalization,¹²² creating a

misdemeanor, which carries with it a sentence of up to three months imprisonment. The statute states as follows: “Any person afflicted with a sexually transmitted disease who knowingly transmits, assumes the risk of transmitting, or does any act which will probably or likely transmit such disease to another person is guilty of a class C misdemeanor.” HIV is included among STDs. See ALA. ADMIN. CODE r. 420-4-1-.03 (2010).

¹¹⁷ *Brock*, 555 So. 2d at 287.

¹¹⁸ 401 S.E.2d 13 (Ga. Ct. App. 1990).

¹¹⁹ *Id.* at 15.

¹²⁰ *Id.* at 16.

¹²¹ *Id.* at 19.

¹²² To form a general rule from insufficient or special facts is to commit the fallacy of hasty generalization or converse accident. See COPI, *supra* note 50, at 82. Professor Copi provides a classic example: “[O]bserving the value of opiates when administered by a physician to alleviate the pains of those who are seriously ill, one may be led to propose that narcotics be made available to everyone.” *Id.* Such reasoning is erroneous because it creates a general rule from too few and unrepresentative examples. A more common example comes from political polling, where polls based on narrow or unrepresentative cross-sections of the population commit this error. Nate Silver of FiveThirtyEight.com highlighted a September 2010 example in polling for California’s gubernatorial contest between Republican Meg Whitman and

general rule from insufficient facts, was erroneously applied to the unique circumstances, or “accidents,” of his case. Even if it were possible to transmit the disease through a bite, he argued that his particular bite could not.¹²³

Unfortunately for Scroggins, he misread the Georgia statute. The operative section of the Georgia criminal code states that “[a] person commits the offense of aggravated assault when he *assaults*: . . . (1) *With intent to murder, to rape, or to rob; or . . . (2) With a deadly weapon or with any object, device, or instrument which, when used offensively against a person, is likely to or actually does result in serious bodily injury.*”¹²⁴ Evidence that HIV could be transmitted via human saliva was unnecessary if the State could prove Scroggins’ guilt under the first clause. Only his intent mattered. The court found the jury’s finding of intent to be supported by the evidence that Scroggins sucked up excess sputum, bragged about his recent HIV-positive diagnosis, and laughed when the officer asked whether he had AIDS.¹²⁵

Responding to the merits of Scroggins’ argument in dicta, the court concluded as Scroggins feared. The expert had testified that even though there were only two unconfirmed reports of transmission through biting, he would not French kiss an HIV-positive woman and that standard medical procedure required physicians to wear protective gloves when dealing with any bodily fluids.¹²⁶ After this and other testimony from the

Democratic Attorney General and former Governor Jerry Brown. One poll that showed Mr. Brown extending his lead drew fire from Ms. Whitman’s pollsters as based on an unrepresentative sampling that overemphasized traditionally Democratic voters. Nate Silver, *Analyzing Whitman’s Questions About California Poll*, NEW YORK TIMES FIVETHIRTYEIGHT BLOG (Sept. 27, 2010, 10:37 AM), <http://fivethirtyeight.blogs.nytimes.com/2010/09/27/analyzing-whitmans-questions-about-california-poll/>.

Hasty generalizations are common in the courtroom testimonies of lackluster medical experts. In *O’Connor v. Commonwealth Edison Co.*, 807 F. Supp. 1376 (D. Ill. 1992), for example, an ophthalmologist testified that the plaintiff’s cataracts were caused by exposure to nuclear radiation in the course of his employment at a nuclear power plant. He based this “binding universal rule” on his past treatment of five patients whose cataracts looked similar to the plaintiff’s. *Id.* at 1391. The trial judge recognized the error and disqualified the expert from delivering certain testimony under Fed. R. Evid. 702. *Id.* The expert was like those, “observing the value of opiates when administered by a physician to alleviate the pains of those who are seriously ill, . . . [who] may be led to propose that narcotics be made available to everyone.” *Id.* (quoting COPI at 68).

¹²³ *Scroggins*, 401 S.E.2d at 16.

¹²⁴ GA. CODE ANN. § 16-5-21(a)(1)–(2) (partially cited in *Scroggins*, 401 S.E.2d at 16 (emphasis in original)).

¹²⁵ *Scroggins*, 401 S.E.2d at 18.

¹²⁶ *Id.* at 19.

expert, the court concluded that “hardly anything [could be] ruled out as ‘impossible’” and, therefore, the jury could rationally “consider the human bite of *a person* infected with the AIDS virus” to be deadly.¹²⁷ That recourse to a hypothetical person was not a linguistic oversight. The court made clear its willingness to accept generalized proof of likelihood of infection from the bite of some hypothetical person, rather than from Scroggins, when it used risk assessments in evidence to define the word “deadly” in the aggravated assault statute:

The expert testified that the “risk” of transmitting the virus via saliva was somewhat less than the documented risk of transmitting the virus into the blood stream via a needle prick, which was one in 250. From this, we think a reasonable juror could conclude, in common wisdom, that the statistical “risk” of contracting AIDS from an infected person via a needle prick is in actuality a random risk, which alike applies to each and every one of the 250 persons, or to all of them if a large enough theory group is considered, i.e., the total population; and that therefore *every needle prick introducing the blood of an infected person is as potentially deadly as the next, and therefore, in the most reasonable common sense of the word, every one is deadly. The same may be said of the supposed much-reduced “risk” of transmitting the virus through saliva.*¹²⁸

Every needle prick, like every sample of saliva, the argument goes, carries the same risk across all HIV-positive needles and saliva, respectively. That may indeed suffice as a neat heuristic or rule of thumb to discourage needle sharing or spitting on people, but it cannot survive as a logical rule of law for two reasons, both of which were also true in *Brock*. First, it assumes homogeneity in the HIV-positive population. If the blood of one HIV-positive person is “as potentially deadly” as the blood of any other HIV-positive person, HIV-positive persons become fungible. If that were true, recourse to the general assumption that saliva can transmit HIV in some hypothetical case would have merit; just as generalized proof of a hypothetical bite in *Brock* would suffice to prove the elements of first degree assault. But, of course, that has never been true. Even as early as 1990, when Scroggins stood trial, immunologists could determine the relative infectiousness of HIV-positive patients.¹²⁹ Variety comes from the stage of infection, CD4⁺ T-cell count, viral load, symptom manifestation, aggravating infections, and other factors.¹³⁰ To

¹²⁷ *Id.* at 20 (emphasis added).

¹²⁸ *Id.* (emphasis added).

¹²⁹ See MURPHY, *supra* note 18, at 13–16.

¹³⁰ See *id.* at 13–16, 67, 72–76, 105–11.

consider one HIV-positive individual to be the same as any other is to ignore science and common sense.

The second logical fallacy is created by the alleviation of the State's burden of persuasion on the likelihood prong. Like the Alabama statute at issue in *Brock*, the Georgia aggravated assault statute includes a circumstances-contingent element that states that the object, device, or instrument used must be used "offensively against a person." If statistical analysis from a hypothetical bite or saliva is sufficient for determining likelihood, then the particular manner in which either was used becomes irrelevant. Allowing this type of proof to satisfy the State's evidentiary burden, therefore, would be tantamount to ignoring the words of the legislature.¹³¹

Scroggins also illustrates the second due process error common to many HIV-related aggravated assault cases. The statute requires "an instrument which, when used offensively against a person, is likely to . . . result in serious bodily injury."¹³² As evidence of likelihood, the court noted that it would have accepted the medical conclusion that "hardly anything [is] impossible."¹³³ In doing so, the court lowered the State's burden from proving that something is likely to proving that it is possible. It is difficult to imagine what proof would not be sufficient under an "anything is possible" standard.

*Weeks v. State*¹³⁴ further illustrates the defects in *Brock* and *Scroggins*. In *Weeks*, the defendant spit in a prison officer's face during a belligerent tantrum. The saliva covered the guard's glasses, lips, and

¹³¹ Courts have a duty "to give effect, if possible, to every clause and word of a statute." *Duncan v. Walker*, 533 U.S. 167, 174 (2001) (quoting *United States v. Menasche*, 348 U.S. 528, 538–39 (1955)).

¹³² GA. CODE ANN. § 16-5-21(a)(1)–(2).

¹³³ *Scroggins*, 401 S.E.2d at 20.

¹³⁴ 834 S.W.2d 559 (Tex. Ct. App. 1992). Biting and spitting cases continued well into the 1990s, even though scientific research had all but conclusively shown that such actions could not transmit HIV under any circumstances. Even the lion's share of federal courts to address the issue had conceded as much. *See, e.g.*, *Glick v. Henderson*, 855 F.2d 536, 539 n.1 (8th Cir. 1988) ("You won't get AIDS from saliva, sweat, tears, urine or a bowel movement." (quoting U.S. DEP'T OF HEALTH & HUMAN SERVS., PUB. NO. HHS-88-8404, UNDERSTANDING AIDS, 2 (1988))); *Chalk v. United States Dist. Ct.*, 840 F.2d 701, 706 (9th Cir. 1988) ("Although HIV has been isolated in several body fluids, epidemiological evidence has implicated only blood, semen, vaginal secretions, and possibly breast milk in transmission. Extensive and numerous studies have consistently found no apparent risk of HIV infection to individuals exposed through close, non-sexual contact with AIDS patients."); *Thomas v. Atascadero Unified Sch. Dist.*, 662 F. Supp. 376, 380 (C.D. Cal. 1986) ("The overwhelming weight of medical evidence is that the AIDS virus is not transmitted by human bites, even bites that break the skin.").

nose.¹³⁵ Weeks was convicted of attempted murder, which in Texas, requires the specific intent to commit murder as well as an overt act that “tends but fails to effect the commission” of the murder.¹³⁶ On appeal and in his habeas proceeding, Weeks argued that the State failed to prove an element of the offense because it offered insufficient evidence to prove that his spit “tend[ed] to” cause death.¹³⁷ On direct appeal, the Texas Court of Criminal Appeals equated “tends to” with “can,”¹³⁸ significantly easing the State’s burden, and found the evidence sufficient to convict where medical experts testified that the possibility of transmission was low, “but certainly not zero.”¹³⁹ Like the court in *Scroggins*, the *Weeks* court accepted the “any possibility” standard.

Lowering the State’s burden to require proof of possibility rather than some level of probability certainly doomed Weeks’s case. However, *Weeks* does represent an improvement over *Brock* and *Scroggins* because the medical testimony in *Weeks* included specific testimony as to the capacity of Weeks’s saliva to transmit the disease. In fact, one expert discussed a study showing that HIV developed in saliva in three out of fifty-five instances and that the chances of HIV being in saliva increased if there was blood present.¹⁴⁰ Another expert examined Weeks and found evidence of gingivitis and tartar on his gums.¹⁴¹ Gingivitis and the irritation caused by tartar, the expert noted, can result in blood in the saliva.¹⁴² In addition, Weeks’s medical records showed that his HIV was moderately advanced and that he experienced nausea, vomiting, and diarrhea near the time of the incident, increasing the likelihood that Weeks had lesions in his mouth or blood in his saliva.¹⁴³ Three experts agreed that the degree of probability of infection through saliva depended upon where the spit landed with one stating that the eyes and nasal cavity were “exceptionally” bad places for contact.¹⁴⁴ Weeks’s spit landed on the victim’s glasses, lips and nose.¹⁴⁵ Additionally, an expert explained that the chances of transmitting the virus increase as the stage

¹³⁵ *Weeks*, 834 S.W.2d at 561. The tantrum also included loud cursing, complaining about his restraints, threats to “cut one of the boss’s heads off,” and banging his head against a van wall. For the purposes of proving intent, the state also proved that Weeks yelled that he was “medical now” and that he was “going to take somebody with him when he went.” *Id.*

¹³⁶ *Id.* (quoting TEX. PENAL CODE § 15.01(a)).

¹³⁷ *Id.*; *Weeks v. Scott*, 55 F.3d 1059, 1062 (5th Cir. 1995).

¹³⁸ *Weeks*, 834 S.W.2d at 561–62.

¹³⁹ *Id.* at 562.

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

¹⁴² *Id.* at 562, 564.

¹⁴³ *Id.* at 564.

¹⁴⁴ *Id.* at 563.

¹⁴⁵ *Id.* at 561.

of the infection progresses.¹⁴⁶ Another expert testified that Weeks's medical records showed that he was HIV-4 one week before he spit on the prison officer,¹⁴⁷ thus distinguishing the risk of contagion from Weeks's blood from that of another HIV-positive individual whose condition had not progressed as far. Under the low standard set by the Texas courts, this testimony sufficiently proved that HIV was likely to—or could—be transmitted through *Weeks's saliva* as opposed to that of a hypothetical HIV-positive individual.

The salient difference between *Weeks*, on the one hand, and *Brock* and *Scroggins*, on the other hand, is the specificity of proof. In *Weeks*, expert testimony on the risk of HIV transmission directly related to the likelihood that Weeks's particular actions could have transmitted HIV. In *Brock* and *Scroggins*, the expert testimony spoke only to a hypothetical risk of transmission that could apply to any case involving any HIV-positive defendant, regardless of his or her unique "accidents" or circumstances. Reasoning from such generality is not only illogical and contrary to due process, but it is also unnecessary. *Weeks* does, however, share one problem with *Scroggins*: it uses the erroneous "mere possibility" standard to prove the risk of transmission.

B. THE SEX CASES

Aggravated assault charges against HIV-positive individuals who have unprotected sex without informing their partners of their HIV status have been more common than similar charges for biting.¹⁴⁸ Whether

¹⁴⁶ *Id.* at 563. See discussion *supra* Part I: The Science of the Likelihood of Transmitting HIV for a more thorough explanation of the different stages of HIV. While the case refers to the stages of HIV as HIV-1, HIV-2, HIV-3, and HIV-4, this is a poor choice in terms since HIV-1 and HIV-2 are different strains of the virus, not different stages of progression.

¹⁴⁷ *Id.*

¹⁴⁸ See, e.g., Robert Mackey, *German Pop Singer on Trial for Concealing H.I.V. Status From Sexual Partners*, THE LEDE NEW YORK TIMES (Aug. 16, 2010, 4:23 PM), <http://thelede.blogs.nytimes.com/2010/08/16/german-pop-singer-on-trial-for-concealing-h-i-v-status-from-sexual-partners/?scp=1&sq=nadja%20benaissa&st=cse> (German pop singer Nadja Benaissa was charged with aggravated assault for having unprotected sex with a man without telling him she was HIV-positive); Brian Rogers, *When HIV is Deemed a Deadly Weapon*, HOUS. CHRON., Mar. 22, 2010, at B (Kevin Lee Sellars charged with aggravated assault of a 15-year-old boy); Bill Vidonic, *Inmate Charged in Jail Sex Incident*, BEAVER COUNTY TIMES, Sept. 23, 2009 (Jeffrey Sloppy charged with aggravated assault after allowing another inmate to perform oral sex on him); Diane Jennings, *Man Who Spread HIV Gets 45 Years*, DALL. MORNING NEWS, May 30, 2009, at 1B (Philippe Padieu found guilty of six counts of aggravated assault with a deadly weapon for having unprotected sex with women without telling them he was HIV-positive); Matt Gagne, *Local Briefs*, BELLINGHAM HERALD, Aug. 30, 2006, at 3A (Michelle

these acts occur more often or simply are charged more often is unclear. What is clear is that certain jurisdictions tackling this behavior through aggravated assault continue to alleviate the State's logical and constitutional burden of proving that a given defendant's particular behavior satisfied the likelihood prong of the crime.

*State v. Whitfield*¹⁴⁹ represents a problem outside the aggravated assault context, but is still emblematic of the kind of generalized proof some jurisdictions use to convict HIV-positive individuals of attempting to transmit the disease. In *Whitfield*, the defendant was convicted of seventeen counts of assault in the first degree for having unprotected sex with seventeen women without informing them of his HIV-positive status.¹⁵⁰ Dr. Diana Yu, a medical expert, testified at trial that HIV and AIDS are incurable, that HIV eventually leads to AIDS, that the statistical risk of a female getting infected from unprotected vaginal intercourse with an HIV-positive male is four percent, and that who becomes infected from intercourse and who does not is unpredictable.¹⁵¹ Dr. Yu also testified that "every incidence of sexual activity would be a

Pauline Whonnock charged with aggravated assault after having unprotected sex without disclosing she was HIV-positive); *Man Again Faces Assault Charge; Allegedly Didn't Tell Woman He Had HIV*, ASSOCIATED PRESS, May 5, 2006, available at 5/5/06 APALERTCRIM 01:16:19 (Edward Kelly, recently released from prison, charged with aggravated sexual assault for unprotected sex with a woman unaware of his HIV-positive status); *HIV-Positive Man Found Guilty of Knowingly Spreading HIV to Sexual Partners*, ASSOCIATED PRESS, Dec. 14, 2005, available at 12/14/05 APALERTCRIM 02:53:07 (Adrian Nduwayo charged with aggravated sexual assault in British Columbia); *Man with HIV is Charged with Sexual Assault*, BUFFALO NEWS, Dec. 9, 2005, at D3 (Patrick Green charged with aggravated sexual assault in Ontario); Laurie Mason, *HIV-Positive Man Admits Sex Assaults*, BUCKS COUNTY COURIER TIMES, Mar. 16, 2004, at 4C (Michael Silverman pleaded no contest to committing aggravated sexual assault); *Man with HIV Sentenced for Having Unprotected Sex*, CHARLESTON DAILY MAIL, July 5, 2002, at 2A (James Willison sentenced to eight to sixteen years after pleading guilty to two counts of aggravated assault); *Prosecutors Accuse Texan of Using HIV as a Weapon*, HOUS. CHRON., Apr. 15, 2001, at A42 (Paul Leslie Hollingsworth plead guilty to charges of aggravated assault with a deadly weapon); Debbie Garlicki, *AIDS Murder Trial Delayed by Defendant's Condition*, MORNING CALL, Apr. 29, 2000, at B09 (Eric Middleton charged with murder and aggravated assault in Lehigh County, Pennsylvania); Libby Avery & Vivienne Heines, *Corpus Christi Courts: Small-Town Courtesy, Big-Time Cases*, TEX. LAWYER, Aug. 18, 1997, at 14 (Thomas Anthony Zule convicted of aggravated sexual assault); Breea Willingham, *AIDS Virus Central to Local Trial*, GREENSBORO NEWS & REC., July 6, 1997, at B1 (Andrew Lee Monk charged with using HIV as a deadly weapon in rape of a girl and discussing five other similar cases in previous years across jurisdictions).

¹⁴⁹ 134 P.3d 1203 (Wash. Ct. App. 2006).

¹⁵⁰ *Id.* at 1207-08.

¹⁵¹ *Id.* at 1209.

period of exposure,' although not every exposure would necessarily transmit HIV."¹⁵² Nothing about the stage of Whitfield's condition, his response to medication or his symptoms factored into the court's consideration. According to Washington State, assault in the first degree, is committed when, "with intent to inflict great bodily harm . . . [a person] exposes, or transmits to . . . another . . . the human immunodeficiency virus."¹⁵³ Any form of sexual contact represents exposure, so even if the court had sought specific proof as to the nature of Whitfield's condition and his unique risk of transmission, it would have been irrelevant. Washington statutorily adopted the "anything is possible" standard as sufficient grounds for conviction.

Whitfield's crimes and the resulting legal problems have popped up in the military courts as well.¹⁵⁴ Aggravated assault in the military is governed by Article 128 of the Uniform Code of Military Justice (UCMJ),¹⁵⁵ which states that anyone under UCMJ jurisdiction who

¹⁵² *Id.* at 1214.

¹⁵³ *Id.* (quoting WASH. REV. CODE § 9A.36.011(1)(b)) (emphasis in original).

¹⁵⁴ See, e.g., Matthew Barakat, *Navy Chaplain Gets Two Years for Sex Crime*, WASH. POST, Dec. 6, 2007, available at <http://www.washingtonpost.com/wp-dyn/content/article/2007/12/06/AR2007120601332.html>; Estes Thompson, *Authorities: Solider Who Didn't Disclose HIV Faces Assault Charges*, ASSOCIATED PRESS, July 18, 2007, available at 7/18/07 APALERTNC 03:01:56 (Private First Class (Pfc) Johnny Lamar Dalton charged with assault with a deadly weapon for having unprotected sex with an 18-year-old civilian unaware of his HIV status); *HIV-Positive Army Private Pleads Guilty to Assault*, DESERET NEWS, Jan. 20, 1999 (Private Gerland Squires charged with aggravated assault for not telling eight sexual partners of her HIV-positive status); *Fort Carson Soldier Guilty in AIDS Case*, DENVER ROCKY MOUNTAIN NEWS, Jan. 14, 1994, at 8A (Army Specialist Quincey Mason guilty of aggravated assault and other counts); *Soldier with AIDS Virus Gets 2 Months*, MIAMI HERALD, July 29, 1988, at 12A (Private Adrian Morris acquitted of aggravated assault but sentenced on lesser charges).

¹⁵⁵ 10 U.S.C. § 928 (2011). Aggravated assault cases in the military are unique in part because of the military's heightened health and wellness requirements. This important interest has given rise to a host of Department of Defense and service regulations governing HIV-positive service members. For example, upon testing positive for HIV in the military, medical officers counsel the service member about the possibility of transmitting the virus. DEP'T OF DEFENSE DIRECTIVE 6485.1, § E9.1.1. See also, *United States v. Klauck*, 47 M.J. 24, 25 (C.A.A.F. 1997) (affirming officer's conviction for assault for failing to inform another officer that he was HIV-positive before engaging in sexual intercourse). In 2004, the Department of Defense updated the military's HIV testing program to require testing at intervals of two years at most. See Memorandum from William Winkenwerder, Jr., M.D., Asst. Sec'y of Defense, to Asst. Sec'y of the Army, Asst. Sec'y of the Navy, and Asst. Sec'y of the Air Force (Mar. 29, 2004). A commander's order to engage in safe sex is not only relevant as a matter of public health, but also as a tool of the criminal law. If a service member so ordered engages in unprotected sex, the service member will

“commits an assault with a dangerous weapon or other means . . . likely to produce death or grievous bodily harm” is guilty of aggravated assault.¹⁵⁶ This language is similar to the language at issue in *Brock* and *Weeks* in that each clearly uses likelihood as a way to describe how the weapon or other instrument is used in the assault. In the ordinary aggravated assault case, then, satisfying this formulation beyond a reasonable doubt requires answering four questions: First, what weapon or means of force did the defendant use? Second, how was that instrument of harm used? Third, does that mode of use make serious harm likely? And, fourth, what level of probability qualifies as “likely”? The Manual for Courts-Martial (MCM) sheds some light on these issues:

[A] bottle, beer glass, a rock, a bunk adaptor, a piece of pipe, a piece of wood, boiling water, drugs, or a rifle butt may be used in a manner likely to inflict death or grievous bodily harm. On the other hand, an unloaded pistol, when presented as a firearm and not as a bludgeon, is not a dangerous weapon or a means of force likely to produce grievous bodily harm, whether or not the assailant knew it was unloaded.¹⁵⁷

Therefore, consideration of the particular manner in which the defendant uses his or her weapon is essential to proving aggravated assault, as is the likelihood that that particular use could cause harm. For the purposes of aggravated assault, the MCM defines “likely” as when “the *natural and probable consequence of a particular use* of any means or force would be death or grievous bodily harm.”¹⁵⁸ This language is notable for two reasons: First, it appears to set the military apart from courts in Texas and Georgia, which, as discussed in *Weeks* and *Scroggins*, accept mere possibility as sufficient evidence of likelihood without direction from the legislature.¹⁵⁹ The military requires a higher threshold of likelihood. Second, it makes the need for specific proof clear. Likelihood can only be determined from a defendant’s “particular use” of whatever means he has employed. The Court of Appeals for the Armed Forces

be charged with—and most likely found guilty of—violating a lawful order, regardless of the fate of other charges against him under the Uniform Code of Military Justice (UCMJ). Most military cases discussed in this Article include such a specification in conjunction with an aggravated assault charge. *See, e.g.*, *Dacus*, 66 M.J. 235, 236 (C.A.A.F. 2008).

¹⁵⁶ Art. 128(b)(1), UCMJ; 10 U.S.C. § 928(b)(1) (2011).

¹⁵⁷ *Manual for Courts-Martial, United States (MCM)*, Part IV, ¶ 54.c(4)(a)(ii) (2008 ed.). Established by Exec. Order No. 12473, 49 Fed. Reg. 17,152 (Apr. 13, 1984). The MCM is a detailed guide to the conduct and procedure for courts-martial promulgated by the President.

¹⁵⁸ *Id.* (emphasis added).

¹⁵⁹ *See supra* Part IV. A.: The Biting Cases.

(C.A.A.F.) made this clear in *United States v. Outhier*.¹⁶⁰ Distinguishing between circumstances that could make a weapon qualify as a “means likely” to cause harm and those circumstances that could not, the court noted that there is always a

lynch-pin between a means that is used in a manner “likely” to produce death or grievous bodily harm and one that is not. . . . [Some] “means” . . . [a]re unique for an aggravated assault case, i.e., a fist. . . . The question is whether the means were “used *in a manner likely* to produce death or grievous bodily harm.” Thus, in this instance, the circumstances define whether the means used were employed in a manner likely to cause grievous bodily harm or whether appellant’s actions were performed in such a manner that the natural and probable consequences were necessarily death or grievous bodily harm.¹⁶¹

In the standard aggravated assault case involving deadly weapons, therefore, the court took the MCM’s explanation to heart. Circumstances matter and likelihood is contingent upon the natural and probable consequences of using a weapon under those circumstances. This would appear to disqualify the kind of generalized evidence relied upon in *Brock* and *Scroggins*.

The UCMJ, MCM, and C.A.A.F.’s precedents thus offer military prosecutors clear instructions on how to indict and prove the elements of aggravated assault for an HIV-positive service member who has sex without informing his partner of his HIV-positive status. The particular nature of the defendant’s condition and its correlative risk of transmission are essential elements of that calculus because both factor into determining the consequences of the sexual act and whether those consequences were “natural and probable.” But, as the cases suggest, these instructions were ignored in two distinct ways.

First, the military courts, like the state courts in *Brock* and *Scroggins*, have ignored the particular circumstances of the HIV-positive defendant on trial. In *United States v. Johnson*,¹⁶² for example, a general court-martial convicted the appellant, in relevant part, of aggravated assault for engaging in oral sodomy while HIV-positive and attempted aggravated assault for attempting to engage in anal sodomy with another man.¹⁶³ A physician with the Air Force Medical Corps testified that there was a thirty-five percent chance that an HIV-positive individual will

¹⁶⁰ 45 M.J. 326 (C.A.A.F. 1996).

¹⁶¹ *Id.* at 329 (emphasis in original) (internal citations omitted).

¹⁶² 30 M.J. 53 (C.M.A. 1990).

¹⁶³ *Id.* at 54.

develop AIDS and that mortality rates were currently fifty percent.¹⁶⁴ Notably, the court felt compelled to cite other evidence stating that nearly ninety-nine percent of those infected with HIV will develop AIDS.¹⁶⁵ The physician also testified that intravenous drug use and unprotected sex represented the greatest risks for transmission and that the risk increased with anal intercourse or if either partner has “genital ulcers” or other abrasions.¹⁶⁶ He admitted that fellatio is an “unlikely” means of transmission of HIV.¹⁶⁷ The only evidence of Sergeant Johnson’s conduct was that he performed oral sex on another man and intended to engage in anal sodomy before his partner objected. There was no indication that Johnson had any genital ulcers or exhibited any risk enhancement factors, nor was intravenous drug use at issue. Still, the court found the physician’s testimony sufficient to prove the likelihood prong of aggravated assault.¹⁶⁸

The court’s evident gloss over the explanatory language in the MCM is one striking feature of this case. The other is its inexplicable ignorance about HIV given the extent of military regulations governing HIV-positive service members. The court made its decision without considering whether Johnson conformed to a rule of thumb—that HIV can be transmitted through sexual intercourse—or was unique in some way. After all, the Accident Fallacy only occurs when a general rule of thumb is applied to a particular case that is somehow unique, different, or outside the general rule. In *Johnson* and a series of similar cases, the court must have assumed that differentiation among HIV-positive individuals was impossible. In *Klauck*, the court believed that an aggravated assault may occur “any time” one person exposes another to a deadly disease, as if there were no differences between diseases, patients, or circumstances.¹⁶⁹ But, as early as 1991, when the Department of Defense issued Directive 6485.1 governing the military’s policy toward HIV and AIDS, it was clear that the military could distinguish between types of HIV-positive individuals.¹⁷⁰ It is also clear that at the

¹⁶⁴ *Id.* at 55.

¹⁶⁵ *Id.* at 55 n.4.

¹⁶⁶ *Id.* at 55.

¹⁶⁷ *Id.*

¹⁶⁸ *Id.* at 57.

¹⁶⁹ 47 M.J. at 25 (quoting *United States v. Joseph*, 37 M.J. 392, 396 (C.M.A. 1993)).

¹⁷⁰ Military policy identified six distinct stages of HIV, each with particular characteristics, some of which are summarized in the following chart:

Stage	HIV-1 Antibod y and/or Virus Isolation	Chronic Lymph- adenopathy	T-Helper Cells per Cubic Millimeter (mm ³)	Delayed Hyper- sensitivity	Thrush	Opportunistic Infection

time of Johnson's case, CD4⁺ cell testing could quickly and easily distinguish between types of HIV infections and how they manifested in a particular individual.¹⁷¹ Why such distinctions could not be used to classify HIV-positive criminal defendants is unclear.

Johnson, therefore, is a pure example of the Accident Fallacy and its correlative due process violation. The unique activity that gave rise to the assault charge should have distinguished Johnson from the average case. The court in *Johnson* operated under the general rule that unprotected sex, in whatever form, could transmit a deadly disease. Blind to any unique "accidents" in Sergeant Johnson's case and relying on medical testimony that only tended to validate a general rule of thumb rather than its particular applicability to this case, the court erroneously used a broad generalization as proof of criminal activity. What made that due process violation possible, however, was a second parallel due process error that lowered the government's burden of proof as to likelihood from the MCM's "natural and probable consequences" standard to the simple and clearly lower requirement of "more than merely a fanciful, speculative, or remote possibility."¹⁷² In doing so, C.A.A.F. transformed the MCM's meaningful definition of "likelihood" into an "anything is possible" standard similar to the one used in *Scroggins*, *Weeks*, and *Whitfield*.¹⁷³

Lowering the government's burden is the second way by which the military courts have ignored the plain language of the UCMJ and MCM and, in so doing, violated the due process rights of HIV-positive criminal defendants. To see the contours and gravity of both of these errors,

1	+	-	GT400	WNL		
2	+	+	GT400	WNL		
3	+	+/-	LT400	WNL		
4	+	+/-	LT400	P		
5	+	+/-	LT400	P/C	+	
6	+	+/-	LT400	P/C	+/-	+

(GT = greater than; LT = less than)

DEP'T OF DEFENSE DIRECTIVE 6485.1, § E2.2.1.

¹⁷¹ Murphy, *supra* note 18, at 67-76. Viral load testing, which is thought to be more precise than CD4⁺ cell count in regards to risk, was not yet available.

¹⁷² United States v. Johnson, 30 M.J. 53, 57 (C.M.A. 1990).

¹⁷³ See *supra* Part IV. A.: The Biting Cases for discussion of *Scroggins* and *Weeks* and Part IV. B.: The Sex Cases for discussion of *Whitfield*. In *Whitfield*, the lower standard was actually written into the statute by the legislature, rather than created by judicial fiat.

consider the case of *United States v. Dacus*¹⁷⁴ and the jurisprudential history on which it stands. Dacus was HIV-positive and had known about his condition since 1996. From then on, he received various briefings from commanders and medical professionals concerning his virus, the disease's possible effects and transmission, and his responsibility to inform all prospective sexual partners of his HIV status.¹⁷⁵ During his providence inquiry,¹⁷⁶ Dacus admitted that he knew he should have discussed his HIV status before engaging in sexual activity, that he knew wearing a condom could not always prevent transmission, and that he understood he could transmit the virus through pre-ejaculate fluid.¹⁷⁷ In July 2004, Dacus had sex with two female staff sergeants—once with one and eleven times with the other. He failed to inform either woman of his HIV-positive status, and though he allegedly wore a condom when having sex on one occasion, he admitted that he did not wear one on several other occasions.¹⁷⁸

During his sentencing hearing, Dacus presented the testimony of Dr. Mark Wallace, an expert in AIDS and infectious disease.¹⁷⁹ Dr. Wallace testified that the likelihood of transmission of HIV from one person to another is a direct function of the viral load, which is a measure of the extent of the virus's presence in an individual's system.¹⁸⁰ He further noted that, according to a recent study out of Rakai, Uganda, a person with a viral load of 38,000 would have a 1 in 450 chance of transmitting the HIV virus for every heterosexual act of sexual intercourse, whereas a person with a viral load under 1,700 would have a 1 in 10,000 chance of doing so.¹⁸¹ When a person uses a condom, the risk of transmitting the HIV virus falls by an additional 80 to 90 percent.¹⁸² After examining Dacus, Dr. Wallace also noted that Dacus's viral load was so low as to be

¹⁷⁴ 66 M.J. 235 (C.A.A.F. 2008). *Dacus* came to C.A.A.F. based on a guilty plea, so the court never had occasion to address legal sufficiency of the proof of Dacus's guilt. Instead, the court analyzed whether the plea had a substantial basis in law and fact. *Id.* at 236. This does not change the analysis that follows, however.

¹⁷⁵ Transcript of Record at 26, *United States v. Dacus*, 66 M.J. 235 (C.A.A.F. 2008) (No. 20050404).

¹⁷⁶ A providence inquiry is similar to a plea hearing. During a providence inquiry, a military judge must hear the defendant's plea and determine whether he offers facts sufficient to prove every element of the crime to which he pleaded guilty. See SHANOR & HOGUE, *supra* note 15, at 286–89.

¹⁷⁷ Transcript of Record, *supra* note 175, at 27, 31.

¹⁷⁸ *Id.* at 27–29.

¹⁷⁹ *Id.* at 91–92. Dr. Wallace's name is redacted from the trial transcript, but stated openly in the court's final decision. Because the reason for the redaction is unclear and because Dr. Wallace's name appears numerous times in the final decision, his name will be used here.

¹⁸⁰ *Id.* at 97.

¹⁸¹ *Id.* at 98–100.

¹⁸² *Id.* at 100–01.

undetectable by existing technology, estimating that it was somewhere between one and fifty.¹⁸³ As such, using the Rakai numbers, Dacus had a maximum 1 in 612,000 chance of transmitting the HIV virus to the first staff sergeant if there was any pre-ejaculate fluid present and a maximum 1 in 440,000 chance of transmitting HIV to the second. Dacus was in fact a “very, very rare” HIV-positive individual whose immune system could suppress replication of HIV without medication.¹⁸⁴ While Dacus could still transmit the HIV virus despite his low viral load, his likelihood of doing so was “[e]xtremely low” or “very, very unlikely.”¹⁸⁵

This case had one promising feature: the evidence at trial as to Dacus’s viral load and the particular type and frequency of sexual contact with two staff sergeants went directly to the unique “accidents” of Dacus’s case. His single sexual act with one of his sexual partners made transmission less likely and his exceedingly low viral load put him on the fringe of transmission risk in all cases. However, even though Dacus was able to offer specific evidence of his unique situation, the Air Force Court of Criminal Appeal (AFCCA) found the evidence consistent with a plea of guilty to aggravated assault because, according to C.A.A.F. precedents, the risk of transmission need only be “more than merely a fanciful, speculative, or remote possibility.”¹⁸⁶ The court committed two errors in one. By virtue of his undetectable viral load and the infrequency of sexual contact, Dacus’s case was indeed unique. Yet, the “anything is possible” standard allowed the court to ignore these “accidents.” As noted above, however, the MCM requires a showing that likelihood of death or serious bodily harm be the “natural and probable consequence” of the defendant’s conduct in aggravated assault cases.¹⁸⁷ The threshold used to convict Dacus seems considerably lower than the standard approved in the MCM.

There are four possible reasons for this result, each of which fails to justify the lower standard. First, the military courts may have interpreted the MCM this way in all aggravated assault cases. That is not the case, however. For example, in *United States v. Corrales*, where the defendant placed a knife to his victim’s head and threatened to cut her face with broken glass, the AFCCA made a clear distinction between mere

¹⁸³ *Id.* at 96–97. Since Dacus was sentenced in 2005, viral load tests have become increasingly sensitive, lowering the “undetectable” threshold to 40 copies/mL. Wilson et al., *supra* note 36.

¹⁸⁴ *Id.* at 96.

¹⁸⁵ *Id.* at 101–02.

¹⁸⁶ *Dacus*, 66 M.J. at 238. Dacus argued on appeal that his statements during his providence inquiry did not adduce sufficient facts to warrant conviction of aggravated assault because Dr. Wallace’s testimony defeated a finding of likelihood. *Id.*

¹⁸⁷ See discussion *supra* note 155.

possibility and the governing standard in aggravated assault cases.¹⁸⁸ The court noted that “likely” means “more than a mere possibility that death or . . . harm will occur. Death or grievous bodily harm must be the ‘natural and probable consequence’ before it can be said that the use of a weapon, means, or force was likely to cause death or grievous bodily injury.”¹⁸⁹ In fact, the only cases in which “natural and probable” is equated with the kind of simple possibility embraced by the “more than merely a fanciful, speculative, or remote” standard are those involving HIV-positive defendants. Unless there is some other justification, this seems like obvious discrimination. An entire class of defendants, those who allegedly use their HIV as an instrument of harm, are subject to a lower standard of proof than is every other defendant charged with aggravated assault.

Second, the military seems to have confused risk of transmission with risk of harm. If aggravated assault under the UCMJ requires a means likely to cause grievous bodily harm or death, a judge could interpret “likely” as modifying only “cause.” This suggests that given an attack by the particular weapon or means used, what is important for the likelihood prong is the probability of death or serious injury once the weapon is used. And, since HIV causes AIDS and AIDS is incurable and leads to death, death is the natural and probable consequence of contracting HIV. There is some indication that C.A.A.F. has adopted this interpretation. For example, in *United States v. Joseph*, another aggravated assault case involving HIV, the court analogized HIV to a rifle bullet, stating that “the question would be whether the bullet is likely to inflict death or serious bodily harm *if* it hits the victim, not the statistical probability of the bullet hitting the victim.”¹⁹⁰ That interpretation is misleading, however. It is beyond cavil that great harm or death must be a likely consequence. *Joseph* ignores the fact that it is not the weapon that must likely cause great harm, but rather the manner in which it is used must be likely to cause the resulting harm. As C.A.A.F. explained in *Outhier*, “likely” modifies “means.” The question in *Outhier* was whether “the means were ‘used in a manner likely’” to cause harm.¹⁹¹ Fists could cause sufficient harm if used a certain way, whereas a gun, if an attacker loads it with bubblegum and pulls the trigger, could not. To narrow the likelihood prong to the consequential

¹⁸⁸ 61 M.J. 737, 740 (A. F. Ct. Crim. App. 2005).

¹⁸⁹ *Id.* at 742.

¹⁹⁰ 37 M.J. 392, 396–97 (C.M.A. 1993) (emphasis in original). In *United States v. Stewart*, 29 M.J. 92 (C.M.A. 1989), furthermore, C.A.A.F. addressed the foundational question of whether HIV qualifies as a means likely to produce death or grievous bodily harm if, at the time, HIV developed into AIDS (which was equated with death) only thirty to fifty percent of the time. A thirty to fifty percent likelihood of developing AIDS satisfied the Court that AIDS was the natural and probable consequence of contracting HIV. *Id.* at 93.

¹⁹¹ *Outhier*, 45 M.J. 326, 329 (C.A.A.F. 1996) (emphasis added).

harm, therefore, ignores the saliency of a particular weapon's use. What is more, since there can be no harm without a risk of transmission of HIV, any aggravated assault conviction must assess whether the particular means employed—unprotected sex by an HIV-positive man with an undetectable viral load—would naturally and probably transmit HIV.¹⁹²

Third, C.A.A.F. might have justified its low risk of transmission standard on its assumption that an HIV infection is an unquestioned death sentence. In other words, if the gravity of the harm is so great, the risk of transmission of HIV need not be. Indeed, that is what *United States v. Weatherspoon* appears to suggest.¹⁹³ *Weatherspoon* was a traditional aggravated assault case involving choking and repeated kicks to the head. C.A.A.F. cited LeFave for the proposition that the

¹⁹² Even if the *Joseph* standard were correct, and the only applicable question was harm to the body as a result of an HIV infection, the prosecution should still have to prove that serious bodily injury or death were “natural and probable consequences” of contracting HIV. The courts in *Johnson*, *Joseph*, and *Klauck* accepted this as true, but given current medical treatments, the point is debatable. Though a comprehensive summary of the status of HIV treatments is beyond the scope of this paper, recent clinical trials, reported by the Department of Health and Human Services, found that patients receiving two drug combinations of AIDS drugs had up to fifty percent increases in time from HIV to AIDS progression and in survival when compared to people receiving single-drug therapy. Three drug combinations, first prescribed in any widespread form in the early 2000s, produced another fifty to eighty percent improvement in progression from HIV to AIDS and in survival when compared to two-drug regimens. See NAT'L INST. OF HEALTH, *The Evidence that HIV Causes AIDS*, Nat'l Inst. of Allergy & Infectious Diseases (last updated Jan. 14, 2010), <http://www.niaid.nih.gov/topics/hivaids/understanding/howhivcausesaids/pages/hivcausesaids.aspx> (discussing these statistics near the bottom of the webpage in a section titled: Answering the Skeptics: Responses to Arguments that HIV Does Not Cause Aids). Use of these anti-HIV combination therapies has also contributed to dramatic reductions in the incidence of AIDS and AIDS-related deaths in the country to the point where life expectancy of HIV-positive individuals is only slightly below average. See, e.g., Frank J. Palella et al., *Declining Morbidity and Mortality Among Patients with Advanced Human Immunodeficiency Virus Infection*, 338 NEW ENG. J. MED. 853 (1998); Mocroft et al., *Changing Patterns of Mortality Across Europe in Patients Infected with HIV-1*, 352 LANCET 1725 (Nov. 28, 1998); Eric Vittinghoff et al., *Combination Antiretroviral Therapy and Recent Declines in AIDS Incidence and Mortality*, 179 J. INFECTIOUS DISEASES 717 (Mar. 1999); Schwarcz et al., *Impact of Protease Inhibitors and Other Antiretroviral Treatments on Acquired Immunodeficiency Syndrome Survival in San Francisco, California, 1987–1996*, 152 AM. J. EPIDEMIOLOGY 178 (2000). Admittedly, this ignores other arguable categories of bodily harm, such as the side effects these drugs can cause.

¹⁹³ 49 M.J. 209 (C.A.A.F. 1998).

concept of likelihood . . . has two prongs: (1) the risk of harm and (2) the magnitude of the harm. . . . [L]ikelihood . . . is determined by measuring both prongs, not just the statistical risk of harm. Where the magnitude of the harm is great, there may be an aggravated assault, even though the risk of harm is statistically low.¹⁹⁴

Not only is this theory not universally applied,¹⁹⁵ it is also nothing more than a *post hoc* justification for the military courts' unequal treatment of HIV-positive criminal defendants charged with aggravated assault. *Weatherspoon* accepts the "more than merely a fanciful, speculative, or remote" standard as given, relying on various C.A.A.F. precedents that neither discussed LeFave nor indicated a reliance on an inverse variation to determine likelihood. In those cases, the magnitude of harm was assumed to be great because HIV/AIDS is incurable.¹⁹⁶ Yet, C.A.A.F. uses the MCM's "natural and probable consequence" standard for typical aggravated assaults and LeFave's inverse variation for HIV-related assaults.

Since C.A.A.F. created its "more than merely a fanciful, speculative, or remote" standard long before *Weatherspoon's* use of LeFave's inverse variation to justify it, it would seem that there is a fourth possibility. Perhaps the military courts have continued to perpetuate a mistake made long ago, when judges were scared and ignorant of HIV.¹⁹⁷ The

¹⁹⁴ *Id.* at 211 (citing 1 W. LAFAVE & A. SCOTT, SUBSTANTIVE CRIMINAL LAW, § 3.7 at 328 (1986)).

¹⁹⁵ See, e.g., *Corrales*, 61 M.J. 737, 742 (A. F. Ct. Crim. App. 2005).

¹⁹⁶ This made it easy for *Weatherspoon* to rely on the MCM's "natural and probable consequences" standard for the magnitude of harm prong. See 49 M.J. at 212. The cases relied on by *Weatherspoon—Johnson* and *Joseph*—were decided in 1990 and 1993, at the height of the HIV/AIDS pandemic and paranoia.

¹⁹⁷ Even the court in *Johnson* conceded rampant stigmatization of HIV-positive criminal defendants, noting that judges at the time had moved "sentencing proceedings to the courthouse parking lot, stating that 'lots of space and sunshine' would reduce the risk of the defendant's infecting court personnel with AIDS" and also required defendants with AIDS to enter pleas and receive sentences over the phone. *United States v. Johnson*, 30 M.J. 53, 58 n.9 (C.M.A. 1990) (internal quotation marks and citation omitted). Stigmatization and discrimination was not isolated to the courts. During the 1980s, for example, many states mandated screening and testing, compulsory notification of AIDS cases, restrictions of the right to anonymity, prohibition of HIV-infected individuals from certain occupations, and even medical isolation and detention. Tomasevski, K. et al., *AIDS and Human Rights*, in *AIDS IN THE WORLD* 537 (J. Mann et al. eds. 1992). Social ostracization also took the form of housing discrimination, calls for a quarantine of HIV-positive individuals, and parents calling for HIV-positive students to be restricted from the classroom. PUBLIC

precedents upon which the “more than merely a fanciful, speculate, or remote possibility” standard is based are unsubstantiated and *Weatherspoon’s post hoc* justification for it does not suggest otherwise. The cases bear this out. In *Dacus*, C.A.A.F. cites its previous decisions in *Klauck*, *Joseph*, and *Johnson* for support;¹⁹⁸ *Klauck* cites *Joseph*, which in turn relied on *Johnson*.¹⁹⁹ *Johnson* relied on *United States v. Stewart* and *United States v. Womack*,²⁰⁰ but that is where the precedents end. Moreover, neither *Stewart* nor *Womack* provide any reason for lowering the MCM’s natural and probable consequences standard other than judicial fiat. *Stewart* employed the MCM’s standard without mentioning the words fanciful, speculative, or remote.²⁰¹ And *Womack* is even less helpful and more far afield, as it never even addressed the natural and probable consequences standard. In *Womack*, the appellant neither pleaded to nor was charged with aggravated assault. Instead, he pleaded guilty to forcible (oral) sodomy and violating the military’s safe sex order.²⁰² The appellant challenged the validity of the safe sex order based on overbreadth, intrusiveness, and a lack of military necessity, but the court rejected those claims.²⁰³ In doing so, the court neither mentioned aggravated assault nor its requirement of a means likely to produce death or grievous bodily harm. To say that *Womack* and *Stewart* required *Johnson* to adopt the low “more than merely a fanciful, speculative, or

MEDIA CENTER, THE IMPACT OF HOMOPHOBIA AND OTHER SOCIAL BIASES ON AIDS: A SPECIAL REPORT BY THE PUBLIC MEDIA CENTER 17–22 (1995). Throughout the 1980s, hundreds of HIV-positive young gay men were expelled from school and subjected to violence. D. KIRP ET AL., LEARNING BY HEART: AIDS AND SCHOOLCHILDREN IN AMERICA’S COMMUNITIES (1989). There were many incidents of workers refusing to work next to HIV-positive individuals in the manufacturing sector, and some companies have used HIV-status as a reason to deny employment to individuals with HIV. Lawrence O. Gostin & David W. Webber, *Discrimination Based on HIV/AIDS and Other Conditions: “Disability” As Defined Under Federal and State Law*, 3 J. HEALTH CARE L. & POL’Y 266 (2000). Although certain states still refuse to protect the employment rights of HIV-positive individuals, the specter of such discrimination in 2010 pales in comparison to the late 1980s and early 1990s.

¹⁹⁸ *United States v. Dacus*, 66 M.J. 235, 238 (C.A.A.F. 2008) (citing *United States v. Klauck*, 47 M.J. 24, 25 (C.A.A.F. 1997); *Johnson*, 30 M.J. at 57; and *United States v. Joseph*, 37 M.J. 392, 396–97 (C.M.A. 1993)).

¹⁹⁹ *Klauck*, 47 M.J. at 25–26 (citing *Joseph* for the “more than merely a fanciful, speculative, or remote possibility” standard). *Joseph*, 37 M.J. at 396–97 (citing *Johnson* for same).

²⁰⁰ 30 M.J. at 57 (“Based upon our holdings in *Stewart* and *Womack*, [‘likely’] must at least be more than merely a fanciful, speculative, or remote possibility.”); *United States v. Stewart*, 29 M.J. 92 (C.M.A. 1989); *United States v. Womack*, 29 M.J. 88 (C.M.A. 1989).

²⁰¹ *Stewart*, 29 M.J. at 93.

²⁰² *Womack*, 29 M.J. at 88.

²⁰³ *Id.*

remote possibility” standard is to read into the cases something that is simply not there.

Even the Court’s language in *Dacus* indicates awareness of this problem. In tracing this history, C.A.A.F. is uneasy with its precedents, noting only that “in explaining the first [likelihood] prong, we relied upon the ‘risk of harm’ definition developed in several HIV assault cases” and that those earlier cases relied “on language from an earlier HIV assault case.”²⁰⁴ As if punting responsibility for the precedential quagmire in which it found itself, C.A.A.F. never affirmed a standard, merely noting that it has for years been relying on certain precedents that rely on other precedents.²⁰⁵

This jurisprudential quicksand doomed Sergeant *Dacus*’s appeal. Even though his undetectable viral load made him significantly less likely than a hypothetical HIV-positive individual to transmit HIV, the fact that anything is possible satisfied the “more than merely a fanciful, speculative, or remote possibility” standard.²⁰⁶ There are two major problems with the decision in *Dacus*. First, specific proof was available and before the military judge, yet the general rule of thumb was still applied despite unique circumstances: another Accident Fallacy. This occurred because of the second error—the bar for proving likelihood had been previously set well below the instructions of the MCM to the lowest “mere possibility” standard. Therefore, even specific proof as to the qualitative and quantitative unlikelihood that *Dacus* could transmit HIV was insufficient to rebut the government’s case. If all the government had to prove was a mere possibility that was more than “fanciful, speculative, or remote,” even the medical reality that “anything is possible” would suffice. After all, the testifying physicians in *Dacus*, *Johnson*, *Klauck*, and *Joseph* all stated that the likelihood of transmission was relatively low, albeit possible. But, proof of possibility is not proof of likelihood beyond a reasonable doubt.

V. CANADA’S USE OF ITS CRIMINAL LAW

These due process errors are not inherent in aggravated assault cases. That is, there is no reason why charges for aggravated assault will always result in the use of generalized proof and exceedingly low thresholds for proof of guilt. The *Weeks* court and the military courts may have adopted the “Anything is Possible” standard and *Dacus* may be an example of the erroneous use of generalized rules-of-thumb as evidence of guilt, but such errors were products of interpretation rather

²⁰⁴ *United States v. Dacus*, 66 M.J. 235, 238 (C.A.A.F. 2008).

²⁰⁵ Concurring in the result in *Dacus*, Judges Baker and Ryan suggested that had *Dacus* not pleaded guilty, they were prepared to look critically at the case history. *Id.* at 240–41 (Ryan, J., concurring).

²⁰⁶ *Id.* at 239–40.

than the governing regime itself. Canada has used its common law crime of aggravated sexual assault to punish the criminal transmission of HIV and it has generally avoided these mistakes. If American jurisdictions took the Canadian example to heart, aggravated assault could survive as a traditional criminal law tool for prosecuting these crimes.

Aggravated sexual assault is governed by Section 273(1) of Canada's Criminal Code: "Every one [sic] commits an aggravated sexual assault who, in committing a sexual assault, wounds, maims, disfigures or endangers the life of the complainant."²⁰⁷ The government must prove beyond a reasonable doubt that the accused's actions endangered the life of the complainant and that the accused intentionally used force without consent.²⁰⁸ Consent can be vitiated by proof of fraud, but given the severity of the crime compared with simple assault, "only a significant risk of harm . . . will suffice"²⁰⁹ to vitiate consent. Therefore, the sexual acts must have exposed the victim to a significant risk of harm.

There have been three HIV-related cases to come before the Canadian Supreme Court since 1993. *Regina v. Thornton* was a product of its time, as it came before the court early in the HIV epidemic, and therefore provides little guidance on the modern adjudication of the crime.²¹⁰ Thornton was HIV-positive when he donated his blood to the Red Cross. He was not charged with assault, but rather with committing a common nuisance and thereby endangering the public under Section 180 of the Canadian Criminal Code. As sufficient proof of the statute's "endangering" element, the Ontario Court of Appeals took judicial notice of the fact that the presence of HIV antibodies indicates an AIDS infection and that AIDS is a grave and contagious illness.²¹¹ It seems that the endangerment element is synonymous with an assessment of the risk to the body upon contraction of HIV. In *R. v. Cuerrier*, the defendant was charged with aggravated assault for having unprotected sexual intercourse with two victims, but even though the court required a "significant risk to the lives of the complainants occasioned by the act of unprotected intercourse," it found "no doubt" that the defendant

²⁰⁷ Canada Criminal Code [hereinafter CCC], R.S.C. 1985, c. C-46, s. 273.

²⁰⁸ *R. v. Mabior*, 2008 MBQB 201, ¶. 8-9 (Can.), *rev'd*, 2010 MBCA 93.

²⁰⁹ *R. v. J.A.T.*, 2010 BCSC 766, ¶ 54-5 (Can.) (quoting *R. v. Cuerrier*, [1998] 2 S.C.R. 371, ¶ 132 (Can.)).

²¹⁰ *R. v. Thornton* (1991), 1 O.R. 3d 480 (Ont. C.A.).

²¹¹ *Id.* at 481 (stating "[a]ll of this is now well known"). It is not clear from the decision how the court concluded that those statements were "well-known." Even in 1991, the medical community agreed that the presence of HIV antibodies in a person's blood did not necessary mean that the person had AIDS. *See, e.g.*, *United States v. Johnson*, 30 M.J. 53 (C.M.A. 1990) (stating that "under many circumstances," AIDS results from exposure to HIV).

endangered his victims' lives by exposing them to HIV.²¹² The court did not discuss the basis for determining a significant risk, but considered risk in terms of the risk of harm. The court was certain that the defendant's conduct met the standard because "[t]he potentially lethal consequences of infection permit no other conclusion."²¹³

The third HIV case from the Supreme Court of Canada was *R. v. Williams*.²¹⁴ In *Williams*, like *Cuerrier*, the accused was HIV-positive and had unprotected sexual intercourse with the complainant. The unique feature in *Williams* is that the accused may already have infected the complainant with HIV before he knew that he was HIV-positive. To prove aggravated assault, the Crown had to establish the concurrence of the accused's intent and the consequences that made the conduct aggravated assault, i.e., the endangerment. The prosecution failed because if the accused endangered the complainant's life by the acts of unprotected sexual intercourse, there was no intent. When he continued to have unprotected sexual intercourse with the complainant after he knew he was HIV-positive, the Crown could not show that the sexual conduct "harmed the complainant, or even exposed her to a significant risk of harm, because at that point she was possibly, and perhaps likely, already infected with HIV."²¹⁵ There were, then, two holdings in *Williams*: as to the sexual acts before the defendant knew he was HIV-positive, there could be no intent to harm; as to any subsequent sexual acts, there could be no risk to the victim since she had already been exposed to and contracted HIV.

None of these cases speaks to the question of what specific kind of conduct both risks the transmission of HIV and poses a significant risk of harm. It was simply not at issue in *Cuerrier* or *Williams*, but it is relevant because there can be no substantial harm without conduct that risks transmission. It was not at issue in *Williams* because the parties signed a safe-sex agreement in which they conceded that "a single act of unprotected vaginal intercourse carries a significant risk of HIV transmission."²¹⁶ Most lower courts that have interpreted *Cuerrier* have agreed²¹⁷ and argue that advances in medical knowledge as to the risks of

²¹² *R. v. Cuerrier*, [1998] 2 S.C.R. 371, ¶ 95 (Can.). Aggravated assault has the same basic elements as aggravated sexual assault except for the required sexual act. Section 268 of the Canadian Criminal Code states that "[e]very one [sic] commits an aggravated assault who wounds, maims, disfigures or endangers the life of the complainant." CCC, R.S.C. 1985, c. C-46, s. 268.

²¹³ *R. v. Cuerrier*, [1998] 2 S.C.R. 371, ¶ 95 (Can.).

²¹⁴ *R. v. Williams*, [2003] 2 S.C.R. 134 (Can.).

²¹⁵ *Id.* ¶ 34.

²¹⁶ *R. v. Williams*, 2001 NFCA 52, ¶ 7 (Can.).

²¹⁷ *See, e.g.*, *R. v. Wright*, 2009 BCCA 514 (Can.) (holding risk of transmission relevant to determining risk of significant bodily harm to complainant and finding a jury could rationally find that a 5 in 1,000 risk was sufficient); *R. v.*

transmission necessarily require an investigation into transmission risks as well as the potential for grave harm.²¹⁸ Nor did *Cuerrier* establish an evidentiary rule that all unprotected sex constituted a substantial risk and all protected sex constituted an insubstantial risk.²¹⁹ All *Cuerrier* did was establish that a significant risk of harm will vitiate consent when combined with deceit. Otherwise, risk had to be “a matter of fact to be assessed on the evidence in each and every case.”²²⁰ Lower courts were empowered by *Cuerrier* to use case-specific evidence to prove the level of risk, thus ensuring that “personal guilt” would be a feature of any conviction for an HIV-related aggravated assault.

In *R. v. J.A.T.*, for example, the defendant engaged in unprotected anal intercourse with his same-sex partner at various times throughout their relationship.²²¹ He knew he was HIV-positive before they met, but never disclosed his status until he faked a positive HIV test about nine months later.²²² The government charged him with aggravated sexual assault and since his partner had consented to every incident of intercourse, the government also had to prove a substantial risk of harm. The court read *Cuerrier* as establishing the basic principle that a substantial risk was necessary to vitiate consent and since there could be no harm without a risk of transmission, sufficient evidence was necessary to prove a substantial risk of both transmission and harm. Two

S.(F.), 2006 CarswellOnt 1539 (Ont. C.A.) (WL) (similar); *R. v. Mabior*, 2008 MBQB 201 (Can.), *rev'd*, 2010 MBCA 93 (noting that risk of transmission is essential threshold question and finding that an undetectable viral load plus the use of a condom will never constitute a “substantial risk” of transmission). It can be argued that these courts misinterpreted *Cuerrier* in that, by only discussing the gravity of harm to the body upon infection, like C.A.A.F. did in *Joseph*, *supra* note 192, the “substantial risk” did not refer to risk of transmission. That reading is plausible, but myopic. The risk of transmission was somehow not at issue in *Cuerrier* because the defense conceded that sex is one way HIV can be transmitted. The court therefore assumed a risk of transmission without deciding it. The lower courts in various provinces have concluded that, since there can be no harm to the body without a risk of transmission, the “substantial risk” standard applies to both the risk of transmission and gravity of the harm. This distinguishes Canadian courts from American military courts, which have used a “merely more than a fanciful, speculative, or remote possibility” standard when determining risk of transmission, but a “natural and probable consequences” standard when determining risk of harm. See *supra* Part IV. B.: The Sex Cases.

²¹⁸ See e.g., *R. v. J.A.T.*, 2010 BCSC 766, ¶ 21 (Can.).

²¹⁹ *R. v. T.(J.)*, 2008 BCCA 463, ¶ 18–19 (Can.).

²²⁰ *Id.* ¶ 19–20.

²²¹ *J.A.T.*, 2010 BCSC, ¶¶ 32–53 (finding that a review of all the evidence and the credibility of the witnesses suggests that there were three incidents of unprotected sexual intercourse during the defendant’s and the complainant’s ten-month relationship).

²²² *Id.* ¶ 12.

experts in infectious disease testified at trial. The first concluded that the risk of transmission in this case was 4 in 10,000 per incident of anal intercourse. He took into account the defendant's low viral load and that the HIV-positive defendant was the receptive rather than insertive sexual partner, which decreased the risk of transmission. He also considered that the complainant was uncircumcised, which increased the risk.²²³ This evidence typifies the kind of specific proof absent from cases like *Weeks*, *Scroggins*, *Johnson*, and others. Whereas the general rule of thumb is that unprotected anal intercourse carries a 1.4 percent risk of transmission,²²⁴ the unique "accidents" of the defendant's case in *J.A.T.* distinguished it from the norm. His viral load and his sexual position served to lower the risk, whereas the fact that his HIV-negative partner was uncircumcised increased the risk. Specific proof, therefore, will not always absolve a defendant of culpability by reducing the risk of transmission; certain "accidents" can increase the risk over and above the average, making proof of a substantial risk of transmission easier.

As to risk or gravity of the harm upon infection, a second medical expert testified that HIV is no longer synonymous with death.²²⁵ She noted that an HIV-positive individual can have "a normal life expectancy" with antiretroviral drugs and new treatments that reduce the incidence of side effects.²²⁶ Hypothetically, treatment can also lower the viral load of an HIV-positive person to undetectable levels.²²⁷ Although the court noted that there is still no cure for HIV or AIDS, it is no longer a certainty that AIDS is deadly. Given the testimony of both physicians and the unique circumstances of the case, the court found that the government could not prove beyond a reasonable doubt that the defendant exposed his partner to a substantial enough risk.²²⁸

In other cases, Canadian courts have distinguished between those defendants whose actions did not carry a substantial risk of transmission—for example, those with undetectable viral loads who used condoms—and those defendants whose actions did carry a substantial risk, because they had high viral loads and had unprotected sex on multiple occasions.²²⁹ At a minimum, these individuals are distinct and the criminal law can treat them as such. Notwithstanding emotional and retributive reactions to any occasion in which a sexual partner hides his

²²³ *Id.* ¶ 29.

²²⁴ Rebecca F. Baggaley et al., *HIV Transmission Risk Through Anal Intercourse: Systematic Review, Meta-Analysis and Implications for HIV Prevention*, 29 INT'L J. EPIDEMIOLOGY 1048, 1055 (2010).

²²⁵ *J.A.T.*, 2010 BCSC, ¶ 22.

²²⁶ *Id.* ¶¶ 22–23.

²²⁷ *Id.* ¶¶ 23–24.

²²⁸ *Id.* ¶ 88.

²²⁹ *R. v. Mabior*, 2008 MBQB 201, ¶¶ 143–44, 149–50, 152–54 (Can.), *rev'd*, 2010 MBCA 93.

or her communicable disease, it should be recognized that HIV-positive criminal defendants have unique characteristics that distinguish them from one another. A specific defendant's behavior and disease as well as the sexual act at issue should all be considered individually. Canada's approach in *J.A.T.* suggests that a court can make these classifications and still use the criminal law to punish culpable behavior without recourse to generalities, exceedingly low standards of proof, or violations of long-standing principles of due process.

VI. CONCLUSIONS AND IMPLICATIONS

The success of a "personal guilt" approach in *J.A.T.* shows that the traditional criminal law can punish transmission of HIV without errors in logic and violations of due process. But it is a risky recipe. Problematic cases like *Brock*, *Scroggins*, *Weeks*, *Johnson*, and *Dacus* show a tendency toward error that even more specific drafting could not resolve. Even if legislatures were clear about what "tends to" or "likelihood" meant, for example, courts could disregard them, as was the case with the military courts' creation of the more than "fanciful, speculative, or remote possibility" standard in spite of the MCM's "natural and probable consequences" instruction. Inasmuch as this difficulty stems from the use of the crime of aggravated assault to prosecute transmission of HIV, perhaps the traditional criminal law is not the best tool for this purpose. Without a doubt, these cases constitute a public health concern—the spread of HIV and AIDS, regardless of current treatments that may make the diseases manageable, is something the State has a compelling interest in stopping. The aggravated assault approach, however, has proven over-inclusive, by reaching HIV-positive individuals with low viral loads and no intent to harm when the real concern is with men like Nushawn Williams and Philippe Padiou who maliciously planned to infect as many women as possible with HIV.²³⁰ At a minimum, then, jurisdictions that continue to use the traditional criminal law in this context should recognize the potential logical fallacies and due process errors that can occur and guard against them. When likelihood of harm is at issue, prosecutors should introduce evidence of the defendant's viral load or some measure of the status of the defendant's HIV as a means of proving likelihood. Defendants likewise should introduce evidence of their low viral load to raise doubts about whether they could have likely transmitted the disease. And, judges should pay attention. Even if parties to litigation begin to introduce this evidence, three troubling wider implications will remain.

First, jurisdictions that have adjudicated these cases either make the dubious assumption that the criminal law can effectively deter behavior that risks spreading HIV or are charging HIV-related aggravated assaults

²³⁰ Williams and Padiou are discussed in the Introduction to this Article.

under purely retributive statutes.²³¹ These regimes do not achieve effective deterrence. As one Canadian court noted in comparison, the crime of knowingly transmitting a venereal disease was repealed in 1985, but there had not been a prosecution under the section since 1922.²³² Similarly, before the United States Supreme Court overturned state anti-sodomy laws as violating due process,²³³ studies showed that for every twenty sodomy convictions, six million acts went undetected.²³⁴ If the purpose of using the aggravated assault statute is to stop the spread of HIV, the problem of detection is fatal to its success. In 1986, the Surgeon General's Report on AIDS estimated that over 1.5 million people showing no HIV or AIDS-related symptoms may be infected with HIV and capable of infecting others.²³⁵ In 2008, Professor Kenneth Mayer found that more than twenty percent of Americans with HIV do not know they are infected.²³⁶ These individuals, even if engaging in unprotected sex with various partners, could not be found to possess the requisite intent of an assault provision. Strict liability statutes that require no intent to harm may capture this conduct, but they are over-inclusive, may amount to an intrusive "no sex" policy against HIV-positive individuals, and would also, obviously, not prevent such conduct.

Therefore, these statutes have little deterrent value. The retributive criminalization of HIV transmission would have some merit if we accepted the legitimacy of purely punitive criminal statutes,²³⁷ but this

²³¹ For a discussion of deterrent theory of the criminal law, see Steven Shavell, *Criminal Law and the Optimal Use of Nonmonetary Sanctions as a Deterrent*, 85 COLUM. L. REV. 1232, 1247–59 (1985); Richard A. Posner, *An Economic Theory of the Criminal Law*, 85 COLUM. L. REV. 1193 (1985).

²³² R. v. Cuerrier, [1996] 141 D.L.R. (4th) 503, ¶ 73 (Can. B.C.C.A.), *rev'd*, [1998] 2 S.C.R. 371.

²³³ See *Lawrence v. Texas*, 539 U.S. 558 (2003).

²³⁴ Sullivan & Field, *supra* note 13, at 176 & n.103.

²³⁵ C. EVERETT KOOP, SURGEON GENERAL'S REPORT ON ACQUIRED IMMUNODEFICIENCY SYNDROME 12 (1986), http://profiles.nlm.nih.gov/NN/B/B/V/N/_/nnbbvn.pdf.

²³⁶ Richard Knox, *Many Americans with HIV Don't Know They Have It*, NPR (Nov. 24, 2008), <http://www.npr.org/templates/story/story.php?storyId=97315837>; see also CDC, *Prevalence and Awareness of HIV Infection Among Men Who Have Sex With Men – 21 Cities, United States*, CDC MORBIDITY AND MORTALITY WKLY. REP. 59(37), 1201–1207 (Sept. 24, 2010) available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5937a2.htm>.

²³⁷ Purely retributive criminal statutes are of dubious legitimacy, but that discussion is beyond the scope of this paper. For a discussion of the difficulties with purely retributive criminal statutes, see Richard A. Posner, *Retribution and Related Concepts of Punishment*, 9(1) J. LEGAL STUD. 71 (Jan. 1980); Douglas Husak, *Retribution in Criminal Theory*, 37 SAN DIEGO L. REV. 959 (2000); Leon Pearl, *A Case Against the Kantian Retributive Theory of Punishment: A Response to Professor Pugsly*, 11 HOFSTRA L. REV. 273 (1982); Ari Ezra

would be acceptable only if such criminalization only targeted people like NeShawn Williams who intended to harm as many people as possible. But, as we have seen, intent is not always an element of the offense in HIV-related aggravated assaults. The logical and due process problems discussed herein threaten to victimize all HIV-positive individuals in certain jurisdictions, not just those who intend to spread the virus with impunity and without remorse.

Criminalization would no more effectively deter the spread of HIV than the imposition of tort liability. Victims of sexual partners who did not disclose their HIV-positive status have sought and obtained money damages, ranging from \$25,000 to \$12.5 million, for pain and suffering after exposure to the virus.²³⁸ It is unlikely, however, that monetary damages for intentional infliction of emotional distress would stop the spread of HIV, and to conclude otherwise from a smattering of HIV-related tort liability cases ignores the reality of HIV transmission.²³⁹ Those groups most at risk for HIV and most likely to transmit the disease—young and poor gay men, teenagers, sex workers, intravenous drug users, and low-income minorities (the fastest growing group)—are unlikely to change their behavior based on the potential imposition of financial penalties since they tend to be judgment proof. Furthermore, the immaturity of younger at-risk groups and drug addicts means that they are less likely to be rational actors. It is also unclear that tort liability would alter the behavior of relatively low risk populations such as upper middle-class Caucasian couples. Low-risk populations often accompany unsafe sex practices with drug or alcohol use, behavior which compromises an individual's ability to think rationally or to think ahead to future consequences.

Second, while adjudicating HIV-related aggravated assault cases in general, and the risks of transmission and gravity of harm elements in particular, courts must be willing to account for advances in medical knowledge and treatment regimes.²⁴⁰ It is beyond doubt that scientific knowledge of HIV/AIDS, its pathogenesis, its progression and its prognosis, is strikingly different today than when the first HIV-related aggravated assault cases shocked state legislatures in the late 1980s. We

Waldman, *Tormented: A Critique of the Retributive Criminalization of Bullying*, 84 TEMP. L. REV. (forthcoming 2011).

²³⁸ *Robinson v. Louie*, No. 97-30448 (U.S. Bankr. N.D.C.A. Aug. 3, 1998), available at <http://www.canb.uscourts.gov/print/912>; *John B. v. Superior Court*, 137 P.3d 153 (Cal. 2006); Joanna Lin, *Ex-Wife with HIV Awarded Millions*, L.A. TIMES, Nov. 28, 2008, <http://articles.latimes.com/2008/nov/25/local/me-hivsuit25>.

²³⁹ This is an example of the Fallacy of hasty generalization. See *supra* note 122.

²⁴⁰ See generally McArthur, *supra* note 11, at 725–31 (discussing the changing medical picture of HIV and AIDS and its implications for questions of culpability).

now know that any number of factors affect risks of transmission of HIV, including viral load, other injuries or abrasions, sexual positions, and the stage of the HIV-positive partner's disease. New treatments can also reduce an HIV-positive individual's viral load, thus reducing his risk of transmitting the virus to another as compared to a non-treated individual.²⁴¹ We also know that HIV will not necessarily develop into AIDS, as that progression depends upon the strength of the immune system, the HIV stage, the viral load, and any anti-retroviral treatment.²⁴² And this only scratches the surface.²⁴³ Legal standards crafted at the height of public hysteria, or simply before HIV and AIDS became more manageable illnesses, force modern judges into antiquated judgments when it comes to risk of transmission and severity of harm. To guard against that eventuality, the best medical knowledge should be used to update the criminal law's approach.

Third, the implications of a criminal conviction do not end with jail. The resulting stigmatization may be the most troubling. Michael Closen has argued that President Reagan's lack of public discussion of the HIV issue after it first emerged and the Supreme Court's subsequent refusal to address HIV-positive individuals' rights made "silence and avoidance" acceptable responses to the epidemic.²⁴⁴ This further stigmatized the HIV-positive population and contributed to rights abuses, increased the risk of transmission by encouraging concealment of status, and set back treatment efforts.²⁴⁵ By charging HIV-positive individuals with crimes like aggravated assault, prosecutors associate HIV with a "weapon" or "instrument of harm." HIV-positive individuals already suffer stigmatization without the criminal law's attempt to fit a novel incident with the language of a traditional crime. To suggest that HIV is a weapon perpetuates a culture that discriminates against HIV-positive individuals in the workplace²⁴⁶ and in the provision of medical services,²⁴⁷ to name

²⁴¹ Julio S. G. Montaner et al., *The Case for Expanding Access to Highly Active Antiretroviral Therapy to Curb the Growth of the HIV Epidemic*, 368 LANCET 531, 531 (2006); Glenn Betteridge, *Criminal Law and Cases of HIV Transmission or Exposure*, 13 HIV/AIDS POL'Y & L. REV. 33, 34 (2008).

²⁴² Carol L. Galletly & Steven D. Pinkerton, *Toward Rational Criminal HIV Exposure Laws*, 32(2) J. L. MED. & ETHICS 327, 328 (2004); Rachel A. Royce et al., *Sexual Transmission of HIV*, 336 N. ENG. J. MED. 1072, 1072-78 (1997).

²⁴³ See generally MURPHY, *supra* note 18.

²⁴⁴ Closen, *supra* note 12, at 914-17.

²⁴⁵ *Id.* at 897-98.

²⁴⁶ See, e.g., Liza Conyers et al., *Workplace Discrimination and HIV/AIDS: The National EEOC ADA Research Project*, 25 WORK 37 (2005) (studying EEOC claims made by people with HIV and AIDS); Scott Stiffler, *Despite Laws, HIV Discrimination Continues in Workplace*, EDGE BOSTON (Feb 1, 2009), at <http://www.edgeboston.com/index.php?ch=news&sc=&sc2=news&sc3=&id=86644>.

just a couple of contexts. If aggravated assault charges do not work as effective deterrents to risky sexual behavior, they are not worth the added stigma that they thrust upon individuals whose conduct could hardly be considered risky in the first place. A public health approach, like the one taken by various governments to counteract the spread of syphilis, may be a more effective response to the problem.²⁴⁸

At best, the problem of criminalization is one of over-inclusiveness—using general rules-of-thumb to describe too many peculiar and unique cases. At worst, it is one of stereotyping, which is itself a product of ignorance. The average voter, prosecutor, or judge may think that sex transmits HIV, that HIV leads to AIDS and that HIV kills, but those “rules-of-thumb” are not universally applicable. Birds do fly, but not all of them. Sexual intercourse can transmit HIV, but when an undetectable viral load is combined with anti-retroviral treatment and condom use, the statistical probability of transmission is basically nil. Such conduct should rarely, if ever, create a likelihood of transmission sufficient for conviction under an aggravated assault statute. In fact,

²⁴⁷ See, e.g., *Bragdon v. Abbott*, 524 U.S. 624 (1998) (discussing a dentist who refused to fill cavity of an HIV-positive patient unless it was done in a hospital at the expense of the patient).

²⁴⁸ Stephen Kenney, *Criminalizing HIV Transmission: Lessons from History and a Model for the Future*, 8 J. CONTEMP. HEALTH L. & POL’Y 245 (1992). Professor Kenney concluded that non-coercive responses by governments, including voluntary HIV testing, education and counseling may be the most beneficial approach. “A review of the public health response to syphilis indicates that the coercive elements were unsuccessful in comparison with non-coercive programs. Several of the non-coercive programs initiated in the syphilis era have achieved some early success in the fight to control HIV infection. If these programs are to continue to be successful, their objectives must not be thwarted by the use of criminal statutes that perpetuate the public’s fears that HIV can be transmitted by casual contact or make knowledge of HIV infection an element of the offense. Statutes that criminalize virtually any act by persons who know of their HIV infection discourage participation in HIV testing and treatment programs. AIDS-specific statutes that impose liability only for behavior medically proven to transmit HIV and incorporate a defense of informed consent are the preferred means of criminalizing the intentional transmission of HIV. However, even the most narrowly drafted HIV criminal statute may prove to be counterproductive in the fight against HIV infection. A statute that requires defendants to know of their HIV infection at the time of the criminal act will discourage persons from determining their HIV status and entering education and treatment programs. The social and economic cost of this strategy outweighs any benefit likely to result from prosecuting the few individuals who use the intentional transmission of HIV as a means of causing serious injury or death to another person.” *Id.* at 272–73. See also, *Int’l Consultation on the Criminalization of HIV Transmission*, 17(33) J. REPRODUCTIVE HEALTH MATTERS 180(7) (May 1, 2009); Isabel Grant, *The Boundaries of the Criminal Law: the Criminalization of the Non-Disclosure of HIV*, 31 DALHOUSIE L.J. 123 (2008).

various scholars have argued that safe sex practices are so important and so relevant to the risk of transmission of HIV that the criminal law should distinguish between protected and unprotected sex in HIV exposure and nondisclosure cases.²⁴⁹ Different HIV viral loads should be distinguished in the same way.

²⁴⁹ Isabel Grant, *Rethinking Risk: The Relevance of Condoms and Viral Load in HIV Nondisclosure Prosecutions*, 54 MCGILL L. J. 389 (2009).