University of Hawai'i Law Review

Volume 40 / Number 2 / Summer 2018

ARTICLES

COMMENTS

ISSN: 1942-9223

System-Level Standards: Driverless Cars and the Future of Regulatory Design

Samuel D. Adkisson*

* Samuel Adkisson is a May 2018 graduate of Yale Law School. For helpful comments on earlier drafts, he thanks Jerry L. Mashaw, David Harfst, Bailey Adkisson, and participants in Yale Law School's seminar on Regulating Emerging Technologies.

Abstract

Self-driving vehicles will change how Americans travel, work, and live. They have the potential to save tens of thousands of lives over the coming decades. And they are almost here. This Article provides one of the first sustained scholarly accounts of how the National Highway Traffic Safety Administration (NHTSA or Agency) should regulate autonomous vehicles under the Motor Vehicle Safety Act. Currently, NHTSA sets performance safety standards for many motor vehicle parts and functions. This Article argues for an innovative regulatory approach: system-level standards. In contrast to current regulatory approaches, which regulate the safety of individual automobile parts and functions, system-level standards would protect consumers by requiring an aggregate level of safety for autonomous vehicles. This novel approach to regulatory design would protect safety without stifling innovation.

Part I of this Article examines NHTSA's role in regulating motor vehicle safety. It provides a historical overview and takes an in-depth look at the Agency's statutory powers. Part II then discusses NHTSA's current approach to regulating self-driving cars and argues that the Agency is engaging in a three-phase regulatory process. The first phase involves building knowledge and issuing guidance, the second phase is one of cooperative regulatory easing, and the third phase—one that is yet to unfold—will likely involve the implementation of Federal Motor Vehicle Safety Standards (FMVSS). Finally, Part III of this Article proposes a regulatory path forward for self-driving cars. Section III.A develops a taxonomy of FMVSS designed to better analyze the level at which NHTSA should regulate autonomous vehicles. Section III.B then proposes an innovative, system-level regulatory framework for autonomous vehicles. Under the proposal, NHTSA would issue a FMVSS requiring that all autonomous vehicles average no more crashes than today's human-driven cars based on ten million miles of on-road testing in representative conditions. Sections III.C & III.D end by exploring regulatory alternatives.

This Article's approach to regulatory design offers an immediate path forward as regulators determine how best to govern autonomous vehicles. Equally important, this Article reflects a broader view of regulation—one that protects consumers without constraining technological development. This system-level approach will become increasingly important as technological complexity rises and current regulatory tools lose their ability to protect safety without stifling innovation.

INTRODUCTION

Driverless vehicles are coming. In October 2017, Waymo began operating fully autonomous cars—no backup driver needed—in the Phoenix area.[1] In Singapore, Switzerland, Las Vegas, and Ann Arbor, driverless shuttles ferry passengers between fixed destinations.[2] Cruise, General Motors' self-driving car division, plans to introduce driverless cars in San Francisco[3] and New York[4] in 2018, and Tesla boasts that all of its vehicles now "have the hardware needed for full self-driving capability at a safety level substantially greater than that of a human driver."[5] While it remains to be seen which company will build the most effective model or achieve commercial saturation first, one thing is clear: the autonomous vehicle revolution has begun.

Revolution is an appropriate term because driverless cars will change the world. They have the potential to "dramatically reduce the frequency of crashes," which currently cause over 2.2 million injuries and thirty-two thousand fatalities each year in the United States alone.[6] They will turn driving time into work or leisure time for millions of commuters. And they will make it easier for the elderly and infirm to run errands and visit family.[7] Yet, like all revolutions, one must take the good with the bad.[8] For example, self-driving cars are likely to displace tens of thousands of

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[1] Katie Burke, *Waymo To Offer Driverless Rides to Public in Arizona*, AUTO. NEWS (Nov. 7, 2017, 11:00 AM), http://www.autonews.com/article/20171107/MOBILITY/171109834/waymo-google-self-driving-cars-arizona. Waymo is a subsidiary of Alphabet, Google's parent company.

[2] Aarian Marshall, *Self-Driving Shuttle Buses Might Be the Future of Transportation*, WIRED (Nov. 10, 2017, 8:00 AM), https://www.wired.com/story/las-vegas-shuttle-crash-self-driving-autonomous/. The shuttle in Las Vegas got off to something of an ignominious start when a semi-truck backed into it on its first day in service. Fortunately, the damage was superficial. The shuttle was patched up and back on the road later that day.

[3] Alisha Green, *GM's Self-Driving Car Unit Cruise Drops off Lyft on the Way to Pick Up Uber*, S.F. BUS. TIMES (Oct. 18, 2017, 2:15pm), https://www.bizjournals.com/sanfrancisco/news/2017/10/18/gm-cruise-uber-lyft-autonomous-vehicles.html.

[4] Sarah Maslin Nir, *Self-Driving Cars Could Come to Manhattan*, N.Y. TIMES (Oct. 17, 2017), https://www.nytimes.com/2017/10/17/nyregion/driverless-cars-manhattan.html.

[5] *Autopilot*, TESLA, https://www.tesla.com/autopilot (last visited Mar. 18, 2018).

[6] James M. Anderson et al., *Autonomous Vehicle Technology: A Guide for Policy Makers*, RAND CORP. xiv (2016), https://www.rand.org/content/dam/rand/pubs/research_reports/RR400/RR443-2/RAND_RR443-2.pdf.

[7] *Id.* at xv-xvi.

[8] *Compare generally* THOMAS PAINE, RIGHTS OF MAN (1791-92) *with* EDMUND BURKE, REFLECTIONS ON THE REVOLUTION IN FRANCE (1790) (discussing the merits and demerits of the French Revolution).

workers—taxicab drivers, truck drivers, street sweepers, and more.[9] On balance, however, the benefits of autonomous vehicles will likely outweigh the harms.[10]

Self-driving cars enter a regulatory environment designed for human-driven vehicles. The federal government, on the one hand, regulates vehicle *design* and *manufacturing* through the Department of Transportation's National Highway Traffic Safety Administration (NHTSA or Agency).[11] States, on the other hand, regulate the *operation* of vehicles by licensing drivers and issuing rules of the road.[12] Self-driving vehicles challenge this framework by combining the role of vehicle and driver. As the paradigm of automotive transportation begins to shift, so too must the paradigm of automotive regulation. In the past, NHTSA has regulated motor vehicle safety by issuing performance standards for various aspects of vehicles. For example, NHTSA has regulated rearview mirrors[13] and steering wheels.[14] In the era of self-driving cars, however, many of NHTSA's regulations no longer make sense. After all, what good is a steering wheel regulation if self-driving cars do not rely on steering wheels to drive? Self-driving cars are different from human-driven cars, and regulations must account for this.

NHTSA recognizes the mismatch between current regulations and the future of automotive technology. The Agency has begun the slow process of regulatory reform. In October 2017, for instance, NHTSA announced plans to seek comments on ways it might remove "unnecessary regulatory barriers to Automotive Safety Technologies."[15] While removing outdated

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[9] Anderson et al., *supra* note 6, at xv-xviii.

[10] *See generally id.*; Nidhi Kalra & David G. Groves, *The Enemy of the Good: Estimating the Cost of Waiting for Nearly Perfect Automated Vehicles*, RAND CORP. ix-x (2017), https://www.rand.org/content/dam/rand/pubs/research_reports/RR2100/RR2150/RAND_RR2150.pdf (arguing that even short delays in introducing autonomous vehicles will cost tens of thousands of lives in the long-run) [hereinafter Kalra & Groves, *Estimating the Cost of Waiting for Nearly Perfect Automated Vehicles*].

[11] Brian A. Browne, *Self-Driving Cars: On the Road to a New Regulatory Era*, 8 J. L., TECH. & THE INTERNET 1, 8-9 (2017).

[12] *Id.* at 9.

[13] Standard No. 111; Rear Visibility, 49 C.F.R. § 571.111 (2011).

[14] Standard No. 203; Impact Protection for the Driver from the Steering Control System, 49 C.F.R. § 571.203 (2011).

[15] U.S. DEP'T OF TRANSP., REPORT ON DOT SIGNIFICANT RULEMAKINGS 65 (Oct. 2017), https://www.eenews.net/assets/2017/11/06/document_gw_06.pdf ("The National Highway Traffic-Safety Administration (NHTSA) seeks comments to identify any unnecessary regulatory barriers to Automated Safety Technologies, and for the testing and compliance certification of motor vehicles with unconventional automated vehicles designs, particularly those that are not equipped with controls for a human driver; e.g., steering wheel, brake or

regulations is important, the task is relatively straightforward: eliminate or modify regulations that are not relevant to the safe operation of autonomous vehicles.

The rise of autonomous vehicles also presents a more difficult question. Once NHTSA removes mismatched regulations, how should NHTSA regulate self-driving cars? That question is the focus of this Article. More specifically, this Article addresses how and whether NHTSA should use motor vehicle performance standards to regulate self-driving cars. The core argument of this Article is that NHTSA should issue performance safety standards to regulate self-driving cars at the system level. That is, instead of using performance standards to regulate individual aspects of vehicle performance—*e.g.* automotive parts of functions—as NHTSA currently does, the Agency should use performance standards to regulate the overall safety of driverless cars. The shift from part- and function-level standards to system-level standards is an innovative regulatory solution that would enhance motor vehicle safety without stifling the development of autonomous vehicles.

Part I of this Article discusses NHTSA's role in regulating motor vehicle safety. This part has two sections. Section I.A provides a historical overview of NHTSA and discusses how the Agency has used performance standards over time. Section I.B then examines NHTSA's statutory power to set standards as well as how courts have interpreted that power under the Motor Vehicle Safety Act (MVSA) and Administrative Procedure Act (APA). Overall, the purpose of Sections I.A and I.B is to trace the legal and practical framework undergirding NHTSA's current regulatory regime.

Part II of this Article discusses NHTSA and its regulatory efforts with respect to self-driving cars. It argues that NHTSA's regulatory program is unfolding in three phases. The first phase involves building knowledge and issuing guidance. The second phase is one of cooperative regulatory easing. The third phase—one that is yet to occur—will likely involve NHTSA issuing Federal Motor Vehicle Safety Standards (FMVSS) pursuant to its statutory mandate under the MVSA.

Part III of this Article then proposes a regulatory path forward, primarily through the issuance of innovative performance standards. Section III.A offers a three-part taxonomy of FMVSS in order to better analyze the level at which NHTSA should regulate autonomous vehicles. In other words, should NHTSA regulate the individual parts and functions of driverless cars, or should it find a way to regulate the vehicle's self-driving system in the aggregate? Section III.A then makes the case for function-level

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accelerator pedal.").

standards for level three vehicles, and system-level standards for level four and five vehicles.[16] Adopting a system-level approach for level four and five vehicles would be an innovative departure from NHTSA's ordinary regulatory course, balancing safety and technological progress. Next, Section III.B proposes a system-level regulatory framework for level four and five autonomous vehicles: extensive, on-road testing (once vehicles have satisfied certain safety requirements). Under the proposal, NHTSA would issue a FMVSS requiring that all autonomous vehicles average no more crashes than today's human-driven cars based on ten million miles of on-road testing in representative conditions. To make this extensive testing viable, NHTSA and Congress should authorize more testing exemptions so that larger test fleets can take the road. Section III.B also addresses the conditions under which automakers should receive these exemptions—namely, only after presenting prima facie evidence of their vehicles' safety. Section III.C then examines a second-best regulatory framework for level four and five autonomous vehicles: a FMVSS requiring extensive course testing. Section III.D wraps up by discussing several regulatory alternatives: new labeling requirements and rating systems for autonomous vehicles.

NHTSA has prudently taken a wait-and-see approach toward driverless cars. This has allowed the technology to mature, uninhibited by needless oversight. Now that self-driving cars are here, however, NHTSA has an important role to play—both in ensuring that driverless cars are able to hit the road, and in making sure that consumers are protected when they do. This Article argues that NHTSA can, and must, do both, and it explains how the Agency should go about doing so.

I. NHTSA AND THE POWER TO REGULATE MOTOR VEHICLE SAFETY

This part explores NHTSA's efforts to regulate motor vehicles since the Agency's founding roughly fifty years ago. Section I.A provides a historical overview of NHTSA. It discusses how the Agency came to exist and then examines: (1) the early years of NHTSA; (2) the middle years of NHTSA; and (3) NHTSA in the modern era, discussing how the Agency's approach to automotive regulation has changed over time. Next, Section I.B evaluates NHTSA's authority to set standards under the MVSA and APA, focusing especially on how courts have interpreted NHTSA's powers. Section I.C then explores NHTSA's current approach to self-driving cars and argues that the Agency should begin the long process of developing performance safety standards for self-driving cars.

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[16] For a discussion of these levels of automation, see *infra* Section II.A.

A. NHTSA: A Historical Overview

From the invention of the automobile in the late nineteenth century up until the mid-1960s, motor vehicle safety was regulated by states and localities, not the federal government.[17] These local entities regulated auto safety by promulgating and enforcing rules of the road, driver licensing requirements, training requirements, vehicle inspections, and more.[18] While important, these local regulations were failing at what mattered most—protecting the lives of drivers, passengers, and the public. By 1965, automobile deaths exceeded fifty thousand a year,[19] and experts expected the number to double within ten years.[20]

At the same time, the automobile industry was mired in controversy. In a series of 1965 hearings on automotive safety organized by Senator Abraham Ribicoff, several scandals came to light.[21] First, testimony revealed that the results of federally funded research into automobile safety were sometimes suppressed to avoid embarrassing automobile manufacturers.[22] Second, the public learned that the President's Traffic Safety Commission was actually staffed by the employees of automakers, not the federal government.[23] Then in November 1965, eccentric consumer protection advocate Ralph Nader released *Unsafe at Any Speed*.[24] The book framed General Motors Corporation as a greedy corporate villain for selling Corvairs that "had a known propensity to go out of control on turns."[25] Nader's broader argument was that "cars could and should be made safer."[26]

The public demanded action. Congressional hearings continued in February of 1966,[27] and on March 2, 1966, President Lyndon Johnson asked Congress to create a Department of Transportation that would unite various transportation-related agencies, commissions, and bureaus.[28] He

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[17] JERRY L. MASHAW & DAVID L. HARFST, THE STRUGGLE FOR AUTO SAFETY 48 (1990).

[18] *Id.*

[19] *Id.* at 2.

[20] *Id.*

[21] *Id.* at 50-58.

[22] *Id.* at 51.

[23] *Id.*

[24] RALPH NADER, UNSAFE AT ANY SPEED: THE DESIGNED-IN DANGERS OF THE AMERICAN AUTOMOBILE (1965); *see also* MASHAW & HARFST, *supra* note 17, at 53-55 (discussing how Nader's book and public campaign influenced the passage of the Motor Vehicle Safety Act).

[25] MASHAW & HARFST, *supra* note 17, at 53.

[26] *Id.*

[27] *Id.*

[28] *Id.* at 54.

also proposed a "Traffic Safety Act of 1966," which would give federal regulators the power to set performance standards for motor vehicles.[29] Congress tinkered with the bill for the next five months,[30] and on August 31, 1966, Congress passed the MVSA without a single dissenting vote: 371-0 in the House of Representatives and 76-0 in the Senate.[31] President Johnson signed the bill into law eight days later, and NHTSA was born.[32]

The following subsections discuss NHTSA's three regulatory eras. They provide helpful context for this Article's subsequent discussions of NHTSA's statutory powers and of how NHTSA should regulate the self-driving car. Because the history of NHTSA is not a primary focus of this Article, my treatment of the three eras is necessarily brief. This discussion relies heavily on the work of Jerry Mashaw and David Harfst. For a more detailed and nuanced treatment, readers are encouraged to consult their work.[33]

1. The Early Years (1966–1986)

NHTSA was designed to regulate primarily through rulemaking, not case-by-case adjudication.[34] This was seen as an improvement over the "lethargy and ineffectiveness" of earlier administrative agencies like the FTC and NLRB.[35] Thus, the MVSA commands that the Secretary of Transportation "*shall* establish by order appropriate Federal motor vehicle safety standards" (FMVSS).[36] The Act requires that all FMVSS be "practicable," "meet[] the need for motor vehicle safety," and rely on "objective criteria."[37] The MVSA also empowers federal regulators to conduct research and testing on automobiles,[38] and to issue recalls when vehicles pose an unreasonable risk to consumer safety.[39]

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[29] *Id.*

[30] *Id.* at 54-55.

[31] *Id. at* 50, 58.

[32] *Id.* at 58.

[33] *See* Jerry L. Mashaw & David L. Harfst, *From Command and Control to Collaboration and Deference: The Transformation of Auto Safety Regulation*, 34 YALE J. ON REG. 167 (2017) (outlining in considerable depth and detail the three rough eras of NHTSA regulation discussed here); *see also* MASHAW & HARFST, *supra* note 17 (discussing the history of NHTSA from its founding in 1966 through 1990).

[34] S. REP. NO. 89-1301, at 6-8 (1966); MASHAW & HARFST, *supra* note 17, at 176.

[35] Mashaw & Harfst, *supra* note 33, at 176.

[36] National Traffic and Motor Vehicle Safety Act of 1966, Pub. L. No. 89-563, § 103(a), 80 Stat. 718, 719 (1966) (emphasis added) (codified in updated form at 49 U.S.C. § 30111(a) (2012)).

[37] § 102(2), 80 Stat. at 718.

[38] § 106, 80 Stat. at 721 (codified as amended at 49 U.S.C. §§ 30181-83 (2012)).

[39] § 113, 80 Stat. at 725-26 (codified as amended at 49 U.S.C. §§ 30118-20(A) (2012)).

The story of NHTSA's first two decades is one of the rise and fall of rulemaking.[40] Shortly after its creation, NHTSA began promulgating rules designed to improve motor vehicle safety.[41] While most of these rules were modest, the Agency was acting in furtherance of its mission to improve motor vehicle safety by setting minimum performance safety standards. These efforts continued until about 1974.[42] Then, stymied by adverse court rulings[43] and in conflict with a legal culture that preferred ex post to ex ante regulations, NHTSA shifted its attention to recalls.[44]

The shift was sudden. Of the fifty "general safety regulations" issued under the MVSA from 1966 to the mid-1980s, forty-five were issued prior to 1974, and zero were issued after 1976.[45] At the same time, recalls increased. From 1966-1970, NHTSA recalled fifteen million vehicles; from 1971-1975 thirty-three million vehicles; and from 1976-1980 more than thirty-nine million vehicles.[46] By 1986, NHTSA's primary mode of regulation was not rulemaking, but rather recalling defective vehicles and issuing guidance to automakers.[47]

2. The Middle Years (1987–2002)

Mashaw and Harfst dub NHTSA's middle years "The Ice Age of Rulemaking."[48] They note that while NHTSA did pass some rules during this period, the rules that were passed had virtually zero agency-documented safety benefits or economic costs.[49] While some scholars disagree, concluding that NHTSA rulemaking did not slow in the 1970s and 1980s,[50] Mashaw and Harfst's account comports with the evidence. In

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[40] Mashaw & Harfst, *supra* note 33, at 176-82.

[41] MASHAW & HARFST, *supra* note 17, at 10.

[42] *Id.*

[43] Mashaw & Harfst, *supra* note 33, at 178-80.

[44] *See id.* at 178.

[45] MASHAW & HARFST, *supra* note 17, at 12.

[46] *Id.*

[47] *See* Mashaw & Harfst, *supra* note 33, at 177.

[48] *Id.* at 182.

[49] *Id.* at 182-83 (citing NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., DOT-HS-809-834, COST AND WEIGHT ADDED BY THE FEDERAL MOTOR VEHICLE SAFETY STANDARDS FOR MODEL YEARS 1968-2001 IN PASSENGER CARS AND LIGHT TRUCKS viii tbl.1 (2004), and using this source to argue that "[t]he vast majority of NHTSA's rules (fifty out of fifty-nine) either had no demonstrated cost or weight impact on passenger cars (forty-five standards) or had only a negligible impact (five standards)-that is, less than five dollars and three pounds each.").

[50] *See Justice Denied: Rules Delayed on Auto Safety and Mental Health: Hearing before the Subcomm. on Oversight, Fed. Rights & Agency Action of the S. Comm. on the Judiciary,*

addition to the negligible costs and benefits associated with NHTSA rulemaking during this period, a NHTSA report on *Lives Saved by Federal Motor Vehicle Safety Standards and Other Vehicle Safety Technologies 1960–2002*[51] shows that very few lives were saved due to any NHTSA regulations issued during this period.[52]

There were several reasons for NHTSA's continued shift away from rulemaking. First, as discussed above, the Agency suffered a number of legal defeats when courts struck down NHTSA rules under the MVSA and APA.[53] These defeats demoralized staff and pushed them toward recalls. Second, the Reagan and Bush Administrations brought with them a strong ethos of deregulation. This ethos translated into political appointees who often opposed rulemaking and preferred cooperating with automakers.[54] It also resulted in budget cuts to some federal agencies, including NHTSA. NHTSA's budget was reduced from $259 million in 1979 to $211 million in 1988.[55] This, in turn, necessitated staff reductions, and roughly one-third of NHTSA's professional staff departed.[56] Finally, the deregulatory ethos led to the promulgation of Executive Order 12291, which mandated that agencies (including NHTSA) engage in cost-benefit analysis before promulgating new rules.[57] Collectively, these factors combined to result in an era of reduced rulemaking.

3. The Modern Era (2003–Present)

The seeds of the modern era of NHTSA rulemaking were planted in the 1990s. First, John Dingell, the powerful Democratic chairman of the House Energy and Commerce Committee and longtime protector of the auto industry, lost his post in 1995 when Republicans took control of the House of Representatives.[58] During his years as chairman, Dingell "blocked

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113th Cong. 24-25 (2013) (statement of Cary Coglianese, Professor of Law, University of Pennsylvania).

[51] NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., LIVES SAVED BY FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND OTHER VEHICLE SAFETY TECHNOLOGIES 1960-2002 (2004).

[52] *See* Mashaw & Harfst, *supra* note 33, at 184-85 & n.43-53 (explaining this report).

[53] MARISSA M. GOLDEN, WHAT MOTIVATES BUREAUCRATS? POLITICS AND ADMINISTRATION DURING THE REAGAN YEARS 57 (2000); Mashaw & Harfst, *supra* note 33, at 178-80.

[54] Mashaw & Harfst, *supra* note 33, at 188-94.

[55] GOLDEN, *supra* note 53, at 50-51; Mashaw & Harfst, *supra* note 33, at 192.

[56] Mashaw & Harfst, *supra* note 33, at 192.

[57] Exec. Order No. 12291, 3 C.F.R. § 127 (1981), *reprinted as amended in* 5 U.S.C. § 601 at 431-34 (suspended by Exec. Order No. 12866, 58 Fed. Reg. 51735 (1993)).

[58] Mashaw & Harfst, *supra* note 33, at 195, 198.

virtually all of the agency-forcing legislation directed at NHTSA."[59] Second, Congress passed several agency-forcing statutes in the 1990s: the Intermodal Surface Transportation Efficiency Act of 1991 and the Transportation Equity Act for the 21st Century of 1998.[60] Agency-forcing statutes require an agency to engage in rulemaking on a particular topic, often by a particular date. During the 2000s, agency-forcing statutes became one of Congress's favorite ways of prodding NHTSA to act on issues with political salience, such as the safety of children in cars.[61] Third, President Bill Clinton was less focused on deregulation than his two immediate predecessors. By the early 2000s, the time seemed right for NHTSA once again to try its hand at rulemaking.

From 2003 to 2013, NHTSA issued eight "major" rules, a significant uptick from prior decades.[62] A distinctive feature of these rules was their cooperative nature. They coincided with efforts the automotive industry was already undertaking. While many of NHTSA's rules codified standards that the automotive industry was already meeting or planned to meet, NHTSA did demonstrate a renewed ability to engage in rulemaking (albeit with the help of congressional prodding—seven of these eight major rules were the result of agency-forcing statutes).[63] As NHTSA enters the era of the self-driving car, these rules are a sign that the Agency might be willing to promulgate performance safety standards for autonomous vehicles, especially if Congress encourages it to do so.

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[59] *Id.* at 198.

[60] *See* Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), Pub. L. No. 102-240, 105 Stat. 1914, 2083-87 (codified as amended at 15 U.S.C. § 1392 (2012)); Transportation Equity Act for the 21st Century (TEA-21), Pub. L. No. 105-178, 112 Stat. 107, 7103 (1998) (codified as amended at 49 U.S.C. § 30127 (2012)).

[61] For a thorough discussion of agency-forcing statutes directed at NHTSA, see Mashaw & Harfst, *supra* note 33, at 199-216. Mashaw and Harfst cite the following as examples of agency forcing statutes: Transportation Recall, Enhancement, Accountability, and Documentation (TREAD) Act of 2000, Pub. L. No. 106-414, 114 Stat. 1800 (codified at 49 U.S.C. § 30170 (2012)); Anton's Law, Pub. L. No. 107-318, 116 Stat. 2772 (2002) (codified as amended at 49 U.S.C. § 30127 (2012)); Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Pub. L. No. 109-59, 119 Stat. 1144, 10301-10 (2005) (codified at 49 U.S.C. § 30128 (2012)); Cameron Gulbransen Kids Transportation Safety Act of 2007, Pub. L. No. 1 10-189, 122 Stat. 639 (codified as amended at 49 U.S.C. § 30111 (2012)); Pedestrian Safety Enhancement Act of 2010, Pub. L. No. 111-373, 124 Stat. 4086 (codified as amended at 49 U.S.C. § 30111 (2012)); Moving Ahead for Progress in the 21st Century Act (MAP-21), Pub. L. No. 112-141, 126 Stat. 757 (2012) (codified in scattered sections of 23 U.S.C., 26 U.S.C., 29 U.S.C., 33 U.S.C., 42 U.S.C., and 49 U.S.C. (2012)).

[62] Mashaw & Harfst, *supra* note 33, at 216.

[63] *Id.* at 218.

B. NHTSA's Rulemaking Power and the Courts

This part previously mentioned that courts have interpreted NHTSA's rulemaking authority narrowly. This section explores the statutory bounds of NHTSA's rulemaking authority, as interpreted by the judiciary. This is necessary for a fuller assessment of how NHTSA should think about the regulation of autonomous vehicles.

When it comes to setting motor vehicle performance standards, NHTSA is primarily constrained by two statutes—the MVSA and the APA. The MVSA's requirements are mainly substantive, and the APA's requirements are mainly procedural.[64] While this breakdown is not exact,[65] it roughly explains the role of the statutes when courts evaluate the legality of a FMVSS. Moreover, it is important to note that though the distinction between substantive and procedural requirements is analytically helpful, no case exists in which the outcome has hinged on such a classification. This section first addresses substantive requirements before turning to procedural requirements. Understanding both is essential to determining how NHTSA can and cannot regulate self-driving vehicles pursuant to its current statutory authority.

1. Substantive Requirements

The purpose of the MVSA "is to reduce traffic accidents and deaths and injuries resulting from traffic accidents."[66] In order to accomplish this goal, Congress ordered the Secretary of Transportation, acting through NHTSA, to prescribe FMVSS.[67] These standards must meet three substantive requirements. First, all standards must be "practicable;" second, they must "meet the need for motor vehicle safety;" and third, they must "be stated in objective terms."[68] Together, "[t]hese factors represent the statutory minimum . . . against which each automobile safety standard must be

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[64] Nat'l Truck Equip. Ass'n v. NHTSA, 711 F.3d 662, 667 (6th Cir. 2013); Chrysler Corp. v. U.S. Dep't of Transp., 472 F.2d 659, 671 (6th Cir. 1972) ("In order to be valid, [FMVSS] must meet all statutorily prescribed criteria, and the Agency must have complied with all applicable procedural requirements. The former are contained in the Automobile Safety Act of 1966 and can be designated as substantive criteria, the latter, contained in the APA, can be designated as procedural requirements, and they can be discussed separately.").

[65] The MVSA has some procedural requirements. *See, e.g.*, 49 U.S.C. § 30111(b) (2012) (explaining factors NHTSA must consider in the process of making rules).

[66] 49 U.S.C. § 30101 (2012).

[67] 49 U.S.C. § 30111(a) (2012).

[68] *Id.* (though courts sometimes seem to apply 49 U.S.C. § 30111(b)'s "appropriateness" procedural requirement as though it is substantive).

tested."[69] A regulation that fails any one of these substantive requirements is unlawful, and therefore invalid under the APA.[70] As this section shows, courts have not shied away from striking down NHTSA standards when they fail these substantive requirements.[71] Since understanding these requirements is vital to understanding how NHTSA should regulate self-driving cars, this section explores the MVSA's three substantive requirements in turn: (1) practicability, (2) meeting the need for motor vehicle safety, and (3) objectivity. After doing so, the section examines procedural requirements.

i. Practicability

All FMVSS must be "practicable."[72] While the MVSA does not define the term, *Black's Law Dictionary* defines practicability as something "reasonably capable of being accomplished" or "feasible in a particular situation."[73] Federal courts have interpreted the MVSA's practicability requirement to prohibit at least three types of regulations: those that are technologically infeasible,[74] those that are economically infeasible,[75] and those that are infeasible in light of public opinion.[76]

Technological Feasibility — One of the key factors when assessing practicability is whether a standard is technologically feasible.[77] As the Sixth Circuit explained in *Chrysler Corp. v. United States Department of*

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[69] *Chrysler Corp.*, 472 F.2d at 668.

[70] *See* Nat'l Truck Equip. Ass'n v. NHTSA, 711 F.3d 662, 668 (6th Cir. 2013); 5 U.S.C. § 706(2)(A) (2012).

[71] *See, e.g.*, H & H Tire Co. v. U.S. Dep't of Transp., 471 F.2d 350, 355 (7th Cir. 1972) (applying the MVSA's objectivity requirement to strike down a NHTSA tire labeling regulation).

[72] 49 U.S.C. § 30111(a) (2012).

[73] *Practicable*, BLACK'S LAW DICTIONARY (10th ed. 2014).

[74] *Chrysler Corp.*, 472 F.2d at 672.

[75] *H & H Tire Co.*, 471 F.2d at 355.

[76] *See* Pac. Legal Found. v. U.S. Dep't of Transp., 593 F.2d 1338, 1345 (D.C. Cir. 1979). Moreover, the MVSA's legislative history shows that at least the House of Representatives read practicability in broad, open-ended terms. Thus, it is possible that a court might interpret the practicability requirement to capture heretofore unforeseen permutations. *See* Nat'l Tire Dealers & Retreaders Ass'n v. Brinegar, 491 F.2d 31, 38 (D.C. Cir. 1974) (citing 112 Cong. Rec. 19648 (Aug. 17, 1966)) ("The House debate on its proposed safety bill suggests that by 'practicable' the legislators meant that all relevant factors be considered by the agency, 'including technological ability to achieve the goal of a particular standard as well as consideration of economic factors.'"). The Senate, on the other hand, seemed to take a slightly narrower view of practicability. *See id.*

[77] *Chrysler Corp.*, 472 F.2d at 672.

Transportation, NHTSA can implement rules that require companies to improve existing technologies.[78] In doing so, however, NHTSA must not "impose standards so demanding as to require a manufacturer to perform the impossible," or that will "put a manufacturer out of business."[79] In *Chrysler Corp.*, the court found that requiring automakers to install passive restraints, such as airbags, was not asking automakers to do the impossible, so the court did not strike the rule down on this basis.[80] By contrast, in *Paccar v. NHTSA* the Ninth Circuit held that a NHTSA skid test was unlawful on practicability grounds because NHTSA could not guarantee that the friction coefficient of the test surface would not change over time.[81] Since the friction coefficient of the test surface might change over time, there was no technologically feasible way for manufacturers to "assure that their vehicles will exactly meet the objective standard when tested by NHTSA" unless they "overcompensate by testing their vehicles on road surfaces substantially slicker than official regulations require."[82] Since there was no technologically feasible way for manufacturers to know the exact friction coefficient of NHTSA's test surface, the Agency was asking automakers to "do the impossible."[83]

Economic Feasibility — If a standard is "economically unfeasible," it fails the MVSA's practicability requirement.[84] Of course, all regulations bring with them some costs. In any individual case, a regulated party might claim that a regulation is economically infeasible. Thus, courts require federal regulators to examine the costs and benefits of a proposed rule to ensure that the rule will not needlessly "destroy a well-established industry."[85] If significant harm to an industry is likely, costs and benefits must not be totally out of proportion or else the regulation is unlawful on practicability grounds.[86] Moreover, standards having a "large economic effect" on an industry are unlawful if their safety benefits "are not clear."[87] Finally, a FMVSS must offer an economically reasonable means of

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[78] *Id.*

[79] *Id.* at 672-73.

[80] *Id.* at 673-74. The court ultimately struck the rule down for failing the MVSA's objectivity requirement.

[81] Paccar, Inc. v. NHTSA, 573 F.2d 632, 644 (9th Cir. 1978).

[82] *Id.* This case might have been more soundly decided on objectivity grounds. Nonetheless, the Ninth Circuit explicitly rejected objectivity as a basis for its decision and relied solely on impracticability.

[83] *See id.*

[84] Nat'l Tire Dealers & Retreaders Ass'n v. Brinegar, 491 F.2d 31, 37 (D.C. Cir. 1974).

[85] H & H Tire Co. v. U.S. Dep't of Transp., 471 F.2d 350, 355 (7th Cir. 1972).

[86] *See id.* at 356-57 (Stevens, J., concurring).

[87] Nat'l Truck Equip. Ass'n v. NHTSA, 919 F.2d 1148, 1154 (6th Cir. 1990).

demonstrating compliance or else it is not practicable.[88] If a small company cannot afford to test its products in the same way a large company does, *e.g.* through live crash tests, a FMVSS must accommodate this or else the rule is impracticably expensive.[89]

To be clear, economic feasibility analysis does not require pure cost-benefit balancing. Under the MVSA, regulations can issue when costs exceed benefits. This is because safety is the "pre-eminent" factor in NHTSA's analysis,[90] and as such, NHTSA is obligated "to place a thumb on the safety side of the scale."[91] In sum, NHTSA must promulgate FMVSS that protect safety without bankrupting companies.

Feasibility in Light of Public Opinion — A regulatory action can also be impracticable in light of the anticipated public reaction to it.[92] As the D.C. Circuit explained in *Pacific Legal Foundation v. U.S. Department of Transportation*, FMVSS "cannot be considered practicable unless we know . . . motorists will avail themselves of the safety system."[93] In practice, this means that if NHTSA knows consumers are unlikely to use a particular safety feature, like an ignition-interlock, the Agency must consider this when assessing the practicability of a rule.[94] While *Pacific Legal Foundation* remains good law, there have been no other MVSA cases linking public opinion and practicability since the case was decided in 1979.

ii. Meet the Need for Motor Vehicle Safety

In addition to being practicable, all FMVSS must "meet the need for motor vehicle safety."[95] The MVSA defines motor vehicle safety as

> the performance of a motor vehicle or motor vehicle equipment in a way that protects the public against unreasonable risk of accidents occurring because of the design, construction, or performance of a motor vehicle, and against

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[88] *See* Nat'l Truck Equip. Ass'n v. NHTSA, 711 F.3d 662, 673 (6th Cir. 2013).

[89] *See Nat'l Truck Equip. Ass'n*, 919 F.2d at 1154-55.

[90] Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 55 (1983) ("Congress intended safety to be the preeminent factor under the [MVSA]").

[91] Pub. Citizen, Inc. v. Mineta, 340 F.3d 39, 58 (2d. Cir. 2003) (citing *State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29).

[92] Pac. Legal Found. v. U.S. Dep't of Transp., 593 F.2d 1338, 1345 (D.C. Cir. 1979).

[93] *Id.*

[94] *Id.* at 1346 ("[I]t would be difficult to term 'practicable' a system, like the ignition interlock, that so annoyed motorists that they deactivated it.").

[95] 49 U.S.C. § 30111(a) (2012).

> unreasonable risk of death or injury in an accident, and includes nonoperational safety of a motor vehicle.[96]

In *H & H Tire Co. v. U.S. Department of Transportation*, the Seventh Circuit explained that to satisfy this requirement, a regulation must have at minimum a correlation with motor vehicle safety.[97] Thus, ensuring uniformity among auto parts—*e.g.* headlight size—is permissible to ensure that consumers can easily find replacement parts, since this encourages consumers to fix broken car parts and enhances motor vehicle safety.[98] Similarly, a regulation requiring that vehicles be inscribed with vehicle identification numbers (VIN) helps meet the need for motor vehicle safety because "VIN content is of crucial importance in statistical analyses of motor vehicle accidents."[99]

However, the nexus between a regulation and safety cannot be too loose. When a regulation lacks "more than a remote relation" to motor vehicle safety, it is impermissible.[100] In *National Tire Dealers & Retreaders Association v. Brinegar*, the D.C. Circuit struck down a costly requirement that tire retreaders permanently stamp certain information onto their product.[101] Although the regulation in theory bore some relationship to safety, the court found the relation between permanent labeling and safety so attenuated as to be non-existent.[102]

In addition to this nexus requirement, a standard only meets the need for motor vehicle safety if it actually makes roadways safer. As the Ninth Circuit quite reasonably explained in *Paccar, Inc. v. NHTSA*, "[t]he agency has a heavy responsibility . . . to ascertain, with all reasonable probability, that its regulations do not produce a more dangerous highway environment than that which existed prior to governmental intervention."[103] Thus, NHTSA must reasonably conclude that a regulation will actually improve motor vehicle safety, or the standard is unlawful.

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[96] 49 U.S.C. § 30102(9) (2012).

[97] H & H Tire Co. v. U.S. Dep't of Transp., 471 F.2d 350, 355 (7th Cir. 1972).

[98] Chrysler Corp. v. U.S. Dep't of Transp., 515 F.2d 1053, 1057 (6th Cir. 1975).

[99] Vehicle Equip. Safety Comm'n v. NHTSA, 611 F.2d 53, 54 (4th Cir. 1979). Additionally, standardized VIN numbers make it easier to track down stolen cars. Since stolen cars are involved in far more crashes than non-stolen cars, VINs help promote vehicle safety by getting more stolen cars off the road. *Id.*

[100] Nat'l Tire Dealers & Retreaders Ass'n v. Brinegar, 491 F.2d 31, 33 (D.C. Cir. 1974) (striking down a tire retreading regulation as not correlated with motor vehicle safety).

[101] *Id.*

[102] *See id.*

[103] Paccar, Inc. v. NHTSA, 573 F.2d 632, 643 (9th Cir. 1978).

To conclude, for a FMVSS to "meet the need for motor vehicle safety," it must (a) have a reasonable correlation with motor vehicle safety and (b) actually improve motor vehicle safety.

iii. Objectivity

The MVSA's third and final substantive requirement is that FMVSS be "stated in objective terms."[104] Objectivity requires that (1) "tests to determine compliance must be capable of producing identical results when test conditions are exactly duplicated," (2) standards must "be decisively demonstrable by performing a rational test procedure," and (3) "compliance is based upon the readings obtained from measuring instruments as opposed to the subjective opinions of human beings."[105] As these requirements make clear, both FMVSS and the tests used to determine vehicles' compliance must be objective.

First, a case involving the objectivity of compliance testing. In *Chrysler Corp. v. United States Department of Transportation*, the Sixth Circuit remanded FMVSS 208 (passive restraints) because the crash test dummy used to measure compliance lacked objective criteria.[106] In particular, the Agency failed to specify objective "flexibility criteria for the dummy's neck," "force deflection characteristics of the dummy's chest," and "specifications for construction of the dummy's head."[107] Because of these shortcomings, objective testing was impossible.

Second, a case involving the objectivity of a regulation itself. In *Paccar v. NHTSA*, the Ninth Circuit concluded that a regulation failed the objectivity test when it required manufacturers to act with "due care" to ensure that all of their vehicles met NHTSA standards.[108] This seems right,

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[104] 49 U.S.C. § 30111(a) (2012).

[105] Chrysler Corp. v. U.S. Dep't of Transp., 472 F.2d 659, 676 (6th Cir. 1972).

[106] *See id.*

[107] *See id.* ("[T]he test procedures and the test device specified by Standard 208 are not objective in at least the following respects: (1) The absence of an adequate flexibility criteria for the dummy's neck; the existing specifications permit the neck to be very stiff, or very flexible, or somewhere in between, significantly affecting the resultant forces measured on the dummy's head. (2) Permissible variations in the test procedure for determining thorax dynamic spring rate (force deflection characteristics of the dummy's chest) permit considerable latitude in chest construction which could produce wide variations in maximum chest deceleration between two different dummies, each of which meets the literal requirements of SAE J963. (3) The absence of specific, objective specifications for construction of the dummy's head permits significant variation in forces imparted to the accelerometer by which performance is to be measured.").

[108] *Paccar*, 573 F.2d at 645.

since "due care," is not an objectively measurable criterion.[109] Instead, it is a common law-style standard necessarily linked to the "subjective opinions of human beings."[110] This is impermissible.

Objectivity is especially important because the MVSA "puts the burden upon the manufacturer to assure that his vehicles comply under pain of substantial penalties."[111] When it comes to regulating self-driving cars, objective testing and regulatory standards might prove to be a major hurdle given the complexity of the technology.

2. Procedural Requirements

Rules promulgated by NHTSA are subject to judicial review under the APA.[112] The APA requires agencies to respect certain procedural requirements when engaging in rulemaking. These requirements vary based on whether an agency is engaged in formal or informal rulemaking.[113] Since NHTSA promulgates FMVSS using informal rulemaking, this section only considers informal rulemaking.[114]

The APA applies several procedural provisions to informal rulemaking. First, under section 706(2)(D) of the APA, courts must "hold unlawful and set aside" final agency actions issued "without observance of procedure required by law."[115] This is the most procedural of the APA's procedural requirements. It means that if an agency fails to follow the strictures of the APA when promulgating a regulation, that regulation is unlawful. Thus, in *Wagner Electric Corp. v. Volpe*, the Third Circuit struck down a NHTSA regulation because the Agency failed to give interested parties sufficient notice of the proposed regulation as required by section 553(b) of the

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[109] *Id.*

[110] *Chrysler Corp.*, 472 F.2d at 676.

[111] *Id.* at 675. As the MVSA's House committee report explains, "In order to [e]nsure that the question of whether there is compliance with the standard can be answered by objective measurements and without recourse to any subjective determination, every standard must be stated in objective terms." H.R. REP. NO. 89-1776, at 16 (1966); *Chrysler Corp.*, 472 F.2d at 675 (quoting the same).

[112] Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 34, 41 (1983); 49 U.S.C. § 30161 (2012).

[113] "Formal" rulemaking occurs on the record after opportunity for an agency hearing. It is similar to a courtroom proceeding and is reviewed under sections 556 and 557 of the APA. 5 U.S.C. §§ 556-57 (2012). Formal rulemaking is now relatively rare. "Informal" rulemaking, on the other hand, requires public notice and an opportunity for the public to comment. Informal rulemaking is, ironically, a highly-formalized process. 5 U.S.C. § 553 (2012).

[114] All references to rulemaking in this section and elsewhere in this Article are references to informal rulemaking unless otherwise noted.

[115] 5 U.S.C. § 706(2)(D) (2012).

APA.[116] While these highly-procedural requirements are vital to the fair functioning of the administrative state, they pose no special difficulties in the context of autonomous vehicles.

A second APA procedural requirement is much more important when it comes to assessing how NHTSA might lawfully regulate self-driving cars—arbitrary and capricious review. Section 706(2)(A) of the APA prohibits agency action that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[117] While an agency is entitled to some deference on these points, section 706 requires the reviewing court "to engage in a substantial inquiry."[118] "This inquiry is principally concerned with the agency decision-making process."[119]

The most important case discussing arbitrary and capricious review in the context of the MVSA is *Motor Vehicles Manufacturers Ass'n v. State Farm Mutual Automobile Insurance Co.*[120] In *State Farm* the Supreme Court held that NHTSA acted arbitrarily and capriciously when rescinding a passive restraint requirement because the Agency failed to articulate a reasonable basis for rescinding the rule.[121] In the process of deciding the case, the Court gave what has become administrative law's lodestar explanation of arbitrary and capricious review:

> The scope of review under the "arbitrary and capricious" standard is narrow and a court is not to substitute its judgment for that of the agency. Nevertheless, the agency must examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made. In reviewing that explanation, we must consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment. Normally, an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.[122]

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[116] Wagner Elec. Corp. v. Volpe, 466 F.2d 1013, 1019-20 (3d Cir. 1972); 5 U.S.C. § 553(b)(3) (2012) ("General notice of proposed rule making shall be published in the Federal Register. . . . The notice shall include . . . either the terms or substance of the proposed rule or a description of the subjects and issues involved.").

[117] 5 U.S.C. § 706(2)(A) (2012).

[118] Citizens to Pres. Overton Park, Inc. v. Volpe, 401 U.S. 402, 415 (1971).

[119] Nat'l Truck Equip. Ass'n v. NHTSA, 711 F.3d 662, 667 (6th Cir. 2013).

[120] Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29 (1983).

[121] *Id.* at 43, 48.

[122] *Id.* at 43 (internal citations and quotation marks omitted).

Distilling these broad principles of law, courts have since explained that when conducting arbitrary and capricious review of FMVSS, courts assess (a) "whether NHTSA amassed sufficient record evidence to support its conclusions," and (b) "whether NHTSA properly relied on the [MVSA] factors Congress intended it to consider when promulgating a new safety standard."[123]

With respect to the requirement that NHSTA amass sufficient record evidence to support its choice, canonical administrative law principles apply. For instance, there must be a "rational connection between the facts found [in the record] and the choice made."[124] Additionally, the agency must show that it considered reasonable alternatives before promulgating a major rule.[125] An agency's decision to exercise only part of its regulatory powers, however, is not arbitrary and capricious.[126] Likewise, an agency does not act arbitrarily or capriciously when it accepts the findings of its own expert in the face of conflicting findings by an outside expert.[127]

Next, with respect to the requirement that NHTSA rely on the MVSA factors Congress established, the MVSA directs NHTSA to consider "relevant available motor vehicle safety information," "whether a proposed standard is reasonable, practicable, and appropriate for the particular type of motor vehicle . . . for which it is prescribed," and "the extent to which the standard will carry out" the purposes of the MVSA.[128] If NHTSA fails to demonstrate that it considered these factors in the course of promulgating a FMVSS, the standard is unlawful.[129]

To show how these requirements work in practice, consider appropriateness. To be lawful, NHTSA must show that it considered whether a regulation was appropriate for a particular type of vehicle.[130]

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[123] *Nat'l Truck Equip. Ass'n*, 711 F.3d 662, 669 (6th Cir. 2013). Thus, if there is a substantive defect with a FMVSS, the regulation almost certainly fails arbitrary and capricious review as well.

[124] Burlington Truck Lines, Inc. v. United States, 371 U.S. 156, 168 (1962).

[125] *See State Farm Mut. Auto. Ins. Co.*, 463 U.S. at 46.

[126] B.F. Goodrich v. U.S. Dep't of Transp., 592 F.2d 322, 325 (6th Cir. 1979) (upholding Agency's decision to regulate two types of tires when Congress had authorized NHTSA to regulate a third type of tire as well).

[127] *Id.*

[128] 49 U.S.C. § 30111(b) (2012); Pub. Citizen, Inc. v. Mineta, 340 F.3d 39, 42 (2d Cir. 2003); *see also* Citizens to Pres. Overton Park, Inc. v. Volpe, 401 U.S. 402, 416 (1971) (explaining that agencies "must consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment"). The purposes of the MVSA are "(1) to prescribe motor vehicle safety standards for motor vehicles and motor vehicle equipment in interstate commerce; and (2) to carry out needed safety research and development." 49 U.S.C. § 30101 (2012).

[129] *Citizens to Pres. Overton Park, Inc.*, 401 U.S. at 416; *Mineta*, 340 F.3d at 42.

[130] 49 U.S.C. § 30111(b) (2012); Chrysler Corp. v. U.S. Dep't of Transp., 472 F.2d 659,

Different types of vehicles can permissibly have different safety standards.[131] If NHTSA fails to consider this when promulgating a rule, it disregards its obligation under the MVSA. "While Congress intended to eliminate clear hazards from the nation's highways, it did not mean to eradicate consumer choice in the free market."[132] Thus, in *Chrysler Corp. v. United States Department of Transportation*, NHTSA failed to consider anywhere in the record whether its vehicle rollover requirements were appropriate for soft-top convertibles.[133] Because NHTSA failed to consider a statutorily required criterion, NHTSA remanded the FMVSS for further agency action.[134] With NHTSA's statutory authority under the MVSA in mind, this Article now turns to the self-driving car.

II. SELF-DRIVING CARS: THE REGULATORY STATE OF PLAY

Having outlined NHTSA's power to regulate motor vehicle safety generally, this part examines NHTSA's current regulatory approach to self-driving cars. To date, the Agency has worked to facilitate the introduction of self-driving cars by issuing guidance and granting exemptions so that automakers can permissibly test self-driving cars. Secretary of Transportation Elaine Chao recently heralded self-driving cars as "full of promise" and announced the Agency's intention to promote the "improvements in safety, mobility, and efficiency" that are possible through self-driving cars.[135] The Agency, however, has not yet taken affirmative steps to promulgate standards for self-driving cars so that autonomous vehicles can lawfully navigate highways without receiving exemptions.

This part argues that NHTSA's regulatory approach to self-driving cars is unfolding in three general phases. In the first phase, NHTSA is building knowledge and issuing guidance to prepare the way for self-driving cars. In the second phase, NHTSA is working cooperatively with companies to ease and remove the regulatory obstacles facing self-driving cars. In the third

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679 (6th Cir. 1972).

[131] *See* Dreisonstok v. Volkswagenwerk, A.G., 489 F.2d 1066, 1074 (4th Cir. 1974) (discussing how NHTSA regulates different types of vehicles in a products liability case).

[132] Nat'l Truck Equip. Ass'n v. NHTSA, 919 F.2d 1148, 1157 (6th Cir. 1990).

[133] *Chrysler Corp.*, 472 F.2d at 679-80.

[134] *Id.* at 680.

[135] NHTSA, U.S. DEP'T OF TRANSP., AUTOMATED DRIVING SYSTEMS 2.0: A VISION FOR SAFETY i (Sept. 12, 2017), https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/13069a-ads2.0_090617_v9a_tag.pdf [hereinafter NHTSA, AUTOMATED DRIVING SYSTEMS 2.0].

phase, NHTSA will likely implement FMVSS to protect motor vehicle safety while permitting the widespread use of self-driving cars.

A few caveats. First, these phases are not mutually exclusive. For example, NHTSA is currently engaging in both phase-one and phase-two activities (building knowledge and issuing exemptions). Second, while it is likely that NHTSA will eventually issue FMVSS designed for self-driving cars, the Agency could choose not to do so. Moreover, NHTSA is only just beginning to engage in phase-two activities and has not yet engaged in any phase-three activities. A political actor such as Congress, the President, or the federal judiciary could alter this regulatory trajectory. Still, this three-phase framework provides a useful way of processing NHTSA's current and future regulatory efforts with respect to self-driving cars.

A. Phase One: Building Knowledge and Issuing Guidance

Autonomous vehicles are an emerging and rapidly advancing technology. One of NHTSA's primary efforts over the last several years has been to better understand the technology and its implications for motor vehicle safety. NHTSA has held conferences, sought comments, and conducted research.[136] Additionally, NHTSA has issued (and continues to issue) guidance to help autonomous car developers understand NHTSA's developing views on autonomous vehicle safety.[137]

While NHTSA has researched vehicle automation for "many years," its public-facing efforts began in earnest in May of 2013.[138] The Agency issued a *Preliminary Statement of Policy Concerning Automated Vehicles*.[139] The statement noted that "America is at a historic turning point for automotive travel" and predicted that automotive technology might change more in the coming decades than in "the last one hundred years."[140] In the statement, NHSTA announced that its autonomous vehicle research agenda would focus on three areas: "[h]uman factors research," "[e]lectronic control system safety," and developing "system performance requirements."[141] NHTSA encouraged states to let companies test-drive

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[136] *See generally id.*; *see also* NHTSA, *U.S. DOT to Host Listening Session on Automated Driving Systems 2.0: A Vision for Safety* U.S. DEP'T TRANSP. (Nov. 3, 2017), https://www.nhtsa.gov/press-releases/us-dot-host-listening-session-automated-driving-systems-20-vision-safety.

[137] *See, e.g.*, NHTSA, *Preliminary Statement of Policy Concerning Automated Vehicles*, U.S. DEP'T TRANSP. 5 (May 30, 2013), https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/automated_vehicles_policy.pdf.

[138] *Id.* at 5.

[139] *Id.*

[140] *Id.* at 1.

[141] *Id.* at 6-8.

autonomous vehicles, though it urged states not to issue detailed regulations governing self-driving cars.[142] The report's most useful contribution to thinking about automated vehicles might have been its decision to classify autonomous vehicles using a five-level system: "No-Automation" (Level 0), "Function-specific Automation" (Level 1), "Combined Function Automation" (Level 2), "Limited Self-Driving Automation" (Level 3), and "Full Self-Driving Automation" (Level 4).[143] While NHTSA has since updated its framework by redefining and adding to these levels,[144] this breakdown helped automakers, scholars, and regulators better understand the safety challenges and regulatory hurdles facing self-driving cars.

During the ensuing years, autonomous vehicle technology continued to develop. In April of 2016, NHSTA issued an update to its 2013 Preliminary Statement.[145] The Agency acknowledged that "partially and fully automated vehicles are nearing the point at which widespread deployment is feasible."[146] The update announced NHTSA's intention to issue "best-practice guidance . . . on establishing principles of safe operation for fully autonomous vehicles" within six months.[147]

Later that year, NHSTA released its *Federal Automated Vehicles Policy*.[148] The document's subtitle, *Accelerating the Next Revolution in Roadway Safety*, made clear that NHTSA sees its role as cooperatively working with manufacturers to get autonomous vehicles on the road as soon as they are safe. The hundred-plus page guidance document "outlines best practices for the safe pre-deployment design, development and testing of [highly autonomous vehicles] prior to commercial sale or operation on public roads."[149] It also included a model state policy, discussed NHTSA's

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[142] *Id.* at 10-14.

[143] *Id.* at 4-5.

[144] NHTSA, AUTOMATED DRIVING SYSTEMS 2.0, *supra* note 135, at 4.

[145] NHTSA, *"DOT/NHTSA Policy Statement Concerning Automated Vehicles" 2016 Update to "Preliminary Statement of Policy Concerning Automated Vehicles,"* U.S. DEP'T TRANSP. (Apr. 2016), https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/autonomous-vehicles-policy-update-2016.pdf [hereinafter NHTSA, *2016 Update to Preliminary Statement of Policy*].

[146] *Id.* at 1.

[147] *Id.*

[148] NHTSA, U.S. DEP'T OF TRANSP., FEDERAL AUTOMATED VEHICLES POLICY: ACCELERATING THE NEXT REVOLUTION IN ROADWAY SAFETY (Sept. 2016), http://www.safetyresearch.net/Library/Federal_Automated_Vehicles_Policy.pdf [hereinafter NHTSA, FEDERAL AUTOMATED VEHICLES POLICY 1.0].

[149] *Id.* at 6.

current regulatory tools, and examined new tools and authorities that NHTSA thought it might need to effectively regulate self-driving cars.[150]

The guidance document asked developers to self-assess the safety of their vehicles using fifteen factors.[151] Developers were encouraged to send this analysis to NHTSA as part of a "safety assessment letter."[152] While reporting was in theory voluntary, NHTSA pointedly reminded manufacturers that "manufacturers and other entities designing new automated vehicle systems are subject to NHTSA's defects, recall and enforcement authority."[153] The not-so-subtle implication of this was that NHTSA would leave autonomous vehicle developers well enough alone, so long as they voluntarily supplied the requested information.[154] In this 2016 guidance document, NHTSA continued to express interest in setting FMVSS for self-driving cars sometime in the future. The Agency explained that autonomous vehicle technology was changing too rapidly to permit standard setting at present.[155] However, NHTSA reaffirmed its intent to eventually promulgate new FMVSS "to facilitate the introduction" and "safe operation" of highly autonomous vehicles.[156] The Agency announced that it would issue an updated version of the guidance document within one year.[157]

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[150] *Id.*

[151] *Id.* at 15. These factors are: Data Recording and Sharing; Privacy; System Safety; Vehicle Cybersecurity; Human Machine Interface; Crashworthiness; Consumer Education and Training; Registration and Certification; Post-Crash Behavior; Federal, State, and Local Laws; Ethical Considerations; Operational Design Domain; Object and Event Detection and Response; Fall Back (Minimal Risk Condition); and Validation Methods. *Id.*

[152] *Id.*

[153] *Id.* at 11.

[154] To add to its subtlety, NHTSA simultaneously posted a notice in the Federal Register explaining how it would apply its recall powers in the context of highly autonomous vehicles. Safety-Related Defects and Automated Safety Technologies, 81 Fed. Reg. 65705, 65705-09 (Sept. 23, 2016). The bulletin explains that "when vulnerabilities in automated safety technology or equipment pose an unreasonable risk to safety, those vulnerabilities constitute a safety-related defect," and NHTSA can issue a recall. *Id.* at 65706. Moreover, the bulletin "reminded readers of the case law that had so generously eased the agency's burden of proof to establish a safety-related defect, including that the agency did not need to proffer an engineering explanation or root cause, and that 'merely a 'non-de minimis' quantity' of failures could be sufficient to make a showing." Mashaw & Harfst, *supra* note 33, at 272 n.405 (quoting Safety-Related Defects and Automated Safety Technologies, 81 Fed. Reg. at 65708).

[155] NHTSA, FEDERAL AUTOMATED VEHICLES POLICY 1.0, *supra* note 148, at 36.

[156] *Id.* at 36 ("As NHTSA continues its research, as technology evolves and matures, and as greater consensus develops regarding uniform standards, the Agency intends to promulgate new FMVSS and use other regulatory tools and authorities to facilitate the introduction of safety-advancing HAVs and facilitate their safe operation.").

[157] *Id.*

On September 12, 2017, NHTSA released the revised guidance document, *A Vision for Safety: Automated Driving Policies 2.0*.[158] This guidance superseded the previous Federal Automated Vehicle Policy and is "NHTSA's current operating guidance" for autonomous vehicles.[159] The guidance contains several noteworthy developments.

First, the document goes out of its way to signal to automakers that NHTSA wants to speed up the roll out of self-driving cars. Tellingly, this version of the Federal Automated Vehicle Policy is roughly a quarter of the length of the previous version. Moreover, the new guidance has twelve "priority safety design elements" instead of fifteen, and unlike the earlier version of its policy, NHTSA no longer asks companies to submit "safety assessment letters" to the Agency (though companies are encouraged to disclose their assessments to the public).[160] NHTSA even adopts a friendlier tone, noting several times that "[t]he Federal Government wants to ensure it does not impede progress with unnecessary or unintended barriers to innovation."[161] The Agency's message: bring on the self-driving cars.

Second, the guidance document is silent on whether NHTSA intends to promulgate FMVSS with respect to self-driving cars. This is a shift from the Agency's 2016 Federal Automated Vehicle Policy, which indicated NHTSA was planning to issue such regulations. On the one hand, this omission might mean nothing. The document is also silent on exemptions, and NHTSA continues to grant exemptions allowing non-FMVSS compliant vehicles onto the road for testing purposes.[162] On the other hand, it is possible that NHTSA believes promulgating FMVSS is no longer the right approach. While prudence is necessary so that NHTSA does not stymy the development of self-driving cars, abandoning safety standards completely would be a mistake.

Third, NHTSA adopts the Society of Automotive Engineers' (SAE) automation levels, which have become the industry standard.[163] This is helpful because it ensures that NHTSA and industry are speaking the same

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[158] NHTSA, AUTOMATED DRIVING SYSTEMS 2.0, *supra* note 135, at 25.

[159] *Id.* at 1. At least one company, Google's Waymo, has supplied the data. *See* WAYMO, WAYMO SAFETY REPORT: ON THE ROAD TO FULLY SELF-DRIVING (2017), https://storage.googleapis.com/sdc-prod/v1/safety-report/waymo-safety-report-2017.pdf.

[160] NHTSA, AUTOMATED DRIVING SYSTEMS 2.0, *supra* note 135, at ii, 16.

[161] *Id.* at ii, 7.

[162] *See infra* Section II.B.1.

[163] NHTSA, AUTOMATED DRIVING SYSTEMS 2.0, *supra* note 135, at 1, 4. NHTSA also used the SAE's approach in its 2016 guidance document, a break from its 2013 approach. *See id.* at 9.

language. The SAE automation standards recognize six levels of automation. Moving forward, all references to levels of automation are based on this framework. NHTSA explains the SAE's six levels of automation in the following way:

- **Level 0 (No Automation):** Zero autonomy; the driver performs all driving tasks.
- **Level 1 (Driver Assistance):** Vehicle is controlled by the driver, but some driving assist features may be included in the vehicle design.
- **Level 2 (Partial Automation):** Vehicle has combined automated functions, like acceleration and steering, but the driver must remain engaged with the driving task and monitor the environment at all times.
- **Level 3 (Conditional Automation):** Driver is a necessity, but is not required to monitor the environment. The driver must be ready to take control of the vehicle at all times with notice.
- **Level 4 (High Automation):** The vehicle is capable of performing all driving functions under certain conditions. The driver may have the option to control the vehicle.
- **Level 5 (Full Automation):** The vehicle is capable of performing all driving functions under all conditions. The driver may have the option to control the vehicle.[164]

Fourth, NHTSA strongly urges states not to interfere with the testing of autonomous vehicles. When discussing best practices for state legislatures, NHTSA argues that "[s]tates should not place unnecessary burdens on competition and innovation by limiting [autonomous driving system] testing or deployment to motor vehicle manufacturers only."[165] NHTSA also encourages states to review their laws "to determine if there are unnecessary regulatory barriers that would prevent the testing and deployment" of autonomous vehicles, such as regulations requiring "a human operator to have one hand on the steering wheel at all times."[166]

NHTSA's phase-one efforts to build knowledge and issue guidance are likely to continue into the foreseeable future. NHTSA intends to update its autonomous vehicle guidance periodically.[167] Additionally, the Agency

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[164] NHTSA, AUTOMATED DRIVING SYSTEMS 2.0, *supra* note 135, at 4.

[165] *Id.* at 21.

[166] *Id.*

[167] *Id.* at 25 ("This document will be updated periodically to reflect advances in technology, increased presence of [autonomous vehicles] on public roadways, and any regulatory action or statutory changes that could occur at both the Federal and State levels.").

will continue to play an important knowledge-dissemination role as it releases autonomous vehicle crash reports[168] and organizes conferences. NHTSA should continue its phase-one efforts even as the Agency advances into phase-two and -three regulatory actions.

B. Phase Two: Cooperative Regulatory Easing

NHTSA sees itself as being "in a partnership with developers for the safe and rapid deployment of [highly autonomous vehicles]."[169] As a result, NHTSA has begun engaging in a program of regulatory easing. There are two main reasons the Agency is taking this cooperative approach. First, NHTSA's core mission is motor vehicle safety, and the Agency believes autonomous vehicles may deliver awesome safety gains. As NHTSA has explained, "Two numbers exemplify the need [for highly autonomous vehicles]. First, 35,092 people died on U.S. roadways in 2015 alone. Second, ninety-four percent of crashes can be tied to a human choice or error."[170] The core promise of highly autonomous vehicles "is to address and mitigate" the ninety-four percent of crashes that are attributable to human error.[171] The second main reason NHTSA is inclined to take a cooperative approach is because of the prevailing legal culture, which favors collaboration and deference over command-and-control orders and strict rulemaking.[172] NHTSA's cooperative approach has so far manifested itself in two concrete areas: exemptions and a plan to remove regulations that might obstruct the deployment of self-driving cars.

1. Granting Exemptions

Because at least some autonomous vehicles do not satisfy existing FMVSS, NHTSA grants exemptions so that automakers can still test these vehicles. In November 2015, Google sent NHTSA a letter explaining that it thought one of its models—a vehicle with no steering wheel, no brake

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[168] *See, e.g.*, OFFICE OF DEFECTS INVESTIGATION, NHTSA, INVESTIGATION PE 16-007: AUTOMATIC VEHICLE CONTROL SYSTEMS (2017), https://static.nhtsa.gov/odi/inv/2016/INCLA-PE16007-7876.PDF (evaluating why a Tesla vehicle crashed in "Autopilot" mode).

[169] Mashaw & Harfst, *supra* note 33, at 272.

[170] NHTSA, FEDERAL AUTOMATED VEHICLES POLICY 1.0, *supra* note 148.

[171] *Id.*

[172] *See generally* MASHAW & HARFST, *supra* note 17 (discussing the role of legal culture in NHTSA's regulatory decision making); Mashaw & Harfst, *supra* note 33.

pedal, and no throttle pedal—might run afoul of certain FMVSS.[173] Google requested an official Agency interpretation as to how its fully autonomous driving system could satisfy FMVSS and especially whether its self-driving system would qualify as a "driver" for purposes of FMVSS.[174] NHTSA punted. It pointed out that "interpreting the term 'driver' in a manner that Google has requested does not necessarily change the requirements of the regulation or otherwise fully resolve the issue Google seeks to address."[175] The Agency instead encouraged Google to apply for an exemption pursuant to 49 U.S.C. 30114 and 49 CFR part 555, which allows NHTSA to exempt vehicles when manufacturers are "able to demonstrate that features of their products provide equivalent levels of safety to those required by the FMVSS."[176]

Since then, NHTSA has actively promoted exemptions to help get self-driving cars on the road. In the Agency's 2016 update to its 2013 preliminary statement, it announced:

> NHTSA will fully utilize its currently available regulatory tools, such as interpretations and exemptions, to more rapidly enable safety innovations. The agency encourages manufacturers to, when appropriate, seek use of NHTSA's existing exemption authority to field test fleets that can demonstrate the safety benefits of fully autonomous vehicles. However, it is becoming clear that existing NHTSA authority is likely insufficient to meet the needs of the time and reap the full safety benefits of automation technology.[177]

This statement came just two months after NHTSA issued its reply letter to Google. A few months later, in September 2016, NHTSA again highlighted the availability of exemptions in the first version of its Federal Automated Vehicle Policy.[178] To ensure that manufacturers are aware of this option, NHTSA uses eight pages of the guidance document explaining how companies can file for exemptions and promises to review all

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[173] *See* Letter from Paul A. Hemmersbaugh, Chief Counsel, NHTSA, to Chris Urmson, Director, Self-Driving Car Project, Google (Feb. 4, 2016), at 2, https://isearch.nhtsa.gov/files/Google%20--%20compiled%20response%20to%2012%20Nov%20%2015%20interp%20request%20--%204%20Feb%2016%20final.htm; Mashaw & Harfst, *supra* note 33, at 268.

[174] *See* Letter from Paul A. Hemmersbaugh, Chief Counsel, NHTSA, to Chris Urmson, Director, Self-Driving Car Project, Google *supra* note 173, at 2.

[175] *Id.* at 4.

[176] *Id.*

[177] NHTSA, *2016 Update to Preliminary Statement of Policy*, *supra* note 146, at 2.

[178] NHTSA, FEDERAL AUTOMATED VEHICLES POLICY 1.0, *supra* note 148, at 54-62.

exemption requests complying with Agency guidelines within six to twelve months.[179]

Moreover, legislation is currently working its way through Congress that would expand the Secretary of Transportation's ability to grant exemptions.[180] The House version of the bill, which passed in a voice vote, would "allow automakers to obtain exemptions to deploy up to 25,000 vehicles each without meeting certain FMVSS in the first year so that the companies can test the cars in the field and collect data that would better inform future research and development."[181] And after the first year, "the cap on the exemptions would then climb to 100,000 vehicles for each automaker every year over a three-year period."[182] This is a considerable step up from the 2,500 exemptions current legislation authorizes.[183]

Exemptions will undoubtedly play a vital role in the development of self-driving cars. But in the end, exemptions are just that—exemptions. They will not provide a full solution to the challenge of getting autonomous vehicles onto the road while also protecting consumer safety. Exemptions will, however, serve an important bridge between current FMVSS and FMVSS designed for autonomous vehicles. Congress should pass legislation expanding exemptions, and NHTSA should allow qualifying companies to take full advantage of the program.

2. Removing Unnecessary Regulations

In addition to granting exemptions, NHTSA is engaging in cooperative regulatory easing by looking to remove regulations that pose "unnecessary or unintended barriers" to the introduction of autonomous vehicles.[184] On November 30, 2017, NHTSA published a notice seeking comments to "identify any unnecessary regulatory barriers to Automated Safety Technologies[] and for the testing and compliance certification of motor vehicles with unconventional automated vehicle designs, particularly those that are not equipped with controls for a human driver . . . ."[185] While the

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[179] *Id.* For information on the timing of review, see *id.* at 62.

[180] SELF DRIVE Act, H.R. 3388, 115th Cong. (2017). NHTSA acts on behalf of the Secretary of Transportation when it grants exemptions and issues rules.

[181] Linda Chiem, *NHTSA Mulls Clearing Roadblocks for Self-Driving Cars*, LAW360 (Oct. 30, 2017, 4:42 PM), https://www.law360.com/articles/979417/nhtsa-mulls-clearing-roadblocks-for-self-driving-cars.

[182] *Id.*

[183] 49 U.S.C. §§ 30113(d) (2012).

[184] *See* NHTSA, AUTOMATED DRIVING SYSTEMS 2.0, *supra* note 135, at ii.

[185] U.S. DEP'T OF TRANSP., *supra* note 15, at 69.

Agency has not yet removed any regulations under this initiative, its call for comments suggest it is serious about doing so.

By granting exemptions and trying to remove regulations that might impede the development and testing of self-driving cars, NHTSA is working cooperatively with industry to ease the regulatory hurdles facing manufacturers of autonomous vehicles. This is a sound strategy during the technology's infancy, but not a permanent solution to the regulatory challenge posed by self-driving cars. Dynamic FMVSS are needed to protect motor vehicle safety without stifling innovation.

C. Phase Three: Promulgating Standards

To date, NHTSA has made no attempt to set FMVSS for self-driving cars.[186] In 2013 and 2016 guidance documents, the Agency did, however, indicate that it plans to do so.[187] While there is no timeline for when NHTSA will enter phase three and begin trying to set FMVSS for autonomous vehicles, this seems to be the Agency's long-term regulatory strategy. The remainder of this section argues that NHTSA should begin the standard-setting process relatively soon. Part III of this Article then discusses what these standards should look like.

NHTSA should issue FMVSS for autonomous vehicles for at least four reasons. First, NHTSA has a statutory obligation to do so. The MVSA states that NHTSA "*shall* prescribe motor vehicle safety standards . . . [that] meet the need for motor vehicle safety."[188] The plain language of the Act requires NHTSA to issue FMVSS in order to meet the need for auto safety, and the need for auto safety is no less with driverless cars than it is for human-driven cars. Although this mandate is not judicially enforceable in the absence of a petition for rulemaking,[189] NHTSA should take this

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[186] NHTSA has, however, promulgated one rule bearing on highly autonomous vehicles, FMVSS 126, which addresses electronic stability control. Mashaw & Harfst, *supra* note 33, at 267 (highlighting that at the time the regulation was promulgated, "ninety-eight percent of all [electronic stability systems] already in use met" the standard). Additionally, the agency has engaged in rulemaking processes on a technology closely related to autonomous vehicles—vehicle-to-vehicle communication. *See id.* at 263. This pending rulemaking was announced by NHTSA in December of 2016. *Id.* at 267.

[187] NHTSA, FEDERAL AUTOMATED VEHICLES POLICY 1.0, *supra* note 148, at 36 ("As NHTSA continues its research, as technology evolves and matures, and as greater consensus develops regarding uniform standards, the Agency intends to promulgate new FMVSS and use other regulatory tools and authorities to facilitate the introduction of safety-advancing HAVs and facilitate their safe operation."); NHTSA, *2016 Update to Preliminary Statement of Policy*, *supra* note 146, at 6-10.

[188] 49 U.S.C. § 30111(a) (2012) (emphasis added).

[189] *See* 5 U.S.C. § 553(e) (2012).

congressional enactment seriously. Doing so requires the Agency to ensure the safety of autonomous vehicles.

Second, properly designed FMVSS would enhance consumer safety. FMVSS have a history of doing so,[190] and there is no reason to think that autonomous vehicle FMVSS would be different. Moreover, FMVSS are especially important in the context of autonomous vehicles in order to avoid a race to the market that inadequately values safety. Once one company's self-driving cars are on the market, competitors will race to put their cars on the market too. This race is not a bad thing; it is a good thing. Economic competition is vital to consumer welfare and technological progress. In the race to market, however, different manufacturers will place different values on safety, and consumers will be hard pressed to tell which vehicles are safe and which are not. This is where FMVSS come into play—ensuring that all autonomous vehicles achieve a baseline level of safety before hitting the road. If NHTSA fails to do so, drivers and the public will suffer preventable deaths, injuries, and economic damage.

Third, FMVSS would bring much needed certainty to businesses and investors. Autonomous vehicle companies are currently operating in the regulatory wild west. In the absence of a FMVSS or law authorizing the sale of autonomous vehicles, NHTSA could suddenly decide that autonomous vehicles are unsafe and either stop granting testing exemptions or initiate recalls.[191] While this is unlikely, it is possible. Imagine, for instance, that a future President decides that self-driving cars threaten a group of his supporters' jobs.[192] A Secretary of Transportation could—for a time, at least—suppress the whole self-driving car experiment for narrow political ends. By promulgating FMVSS in the near future, NHTSA will reduce the risk to business and provide a steadier environment for the American automotive industry to prosper.

Fourth, FMVSS are necessary because other regulatory tools—namely recalls and exemptions—will not adequately protect consumer safety. First, recalls are ordinarily retrospective; they tend to issue only after defective

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[190] *See* Joan Claybrook & David Bollier, *The Hidden Benefits of Regulation: Disclosing the Auto Safety Payoff*, 3 YALE J. ON REG. 87 (1985) (discussing the safety benefits of FMVSS).

[191] *See, e.g.*, Safety-Related Defects and Automated Safety Technologies, 81 Fed. Reg. 65705-09 (Sept. 23, 2016) (explaining NHTSA's broad power to order a recall of any autonomous vehicles or autonomous vehicle technologies it deems pose an unreasonable risk to safety).

[192] This is far from unimaginable. Autonomous vehicles have the potential to eliminate tens of thousands of jobs in the transportation industry, such as taxicab drivers and long-haul truckers.

cars have reached the roadways and consumers have been harmed.[193] FMVSS, on the other hand, are prospective and enforceable before harm takes place. Second, while exemptions are important for bridging the gap between current regulations and FMVSS, they lack the safety-forcing effect of FMVSS. Moreover, in a hypothetical scenario where effective, safety-forcing exemption procedures did exist, NHTSA or Congress could adopt the procedures as a FMVSS so that manufacturers could sell directly to consumers without the impediment of Agency pre-approval vis-à-vis exemptions. For these reasons, recalls and exemptions are not an adequate substitute for autonomous vehicle FMVSS.

NHTSA is yet to engage in phase three regulatory activities (promulgating FMVSS for autonomous vehicles). But as this section has argued, NHTSA should. According to the president of General Motors, autonomous vehicles are likely to be ready for consumers in "quarters, not years."[194] To ensure that NHTSA neither delays the deployment of autonomous vehicles nor allows unsafe vehicles on the road, the time to begin designing a regulatory framework is now. The remainder of this Article discusses how NHTSA should do so.

III. SETTING PERFORMANCE SAFETY STANDARDS FOR DRIVERLESS CARS

This part proposes a regulatory path forward for self-driving cars. Section III.A begins by evaluating the level at which NHTSA should regulate self-driving cars. In other words, should NHTSA set standards for the individual parts and functions of autonomous vehicles, or should it set system-level performance standards for the vehicle's overall self-driving system? This section argues for a system-level approach for level four and five vehicles, and a function-level approach for level three vehicles. Adopting a system-level approach for level four and five vehicles would be an innovative departure from NHTSA's ordinary regulatory course.

Section III.B then develops a system-level regulatory framework for level four and five autonomous vehicles. Under the proposed framework, NHTSA would promulgate a FMVSS requiring that all autonomous vehicles average no more crashes than today's human-driven cars during ten million miles of on-road testing. So that automakers can collect enough data to make this showing, NHTSA should use in full its existing exemption authority and any additional exemption authority that Congress

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[193] *See* Mashaw & Harfst, *supra* note 33, at 245-53.

[194] Bill Vlasic, *G.M. Unveils Its Driverless Cars, Aiming To Lead the Pack*, N.Y. TIMES (Nov. 29, 2017), https://www.nytimes.com/2017/11/29/business/gm-driverless-cars.html.

grants it. Congress, for its part, should expand NHTSA's exemption authority, as the House of Representatives has already voted to do. In doing so, Congress should require NHTSA to issue exemptions in a graduated manner, permitting thousands of test vehicles on the road only after manufacturers present prima facie evidence of their vehicles' safety.

Section III.C then examines a second-best regulatory framework for level four and five autonomous vehicles: a FMVSS requiring extensive course testing. This approach was proposed by Stephen P. Wood, currently a senior NHTSA official, in a 2012 law review article.[195] While this approach would not protect safety as well as the proposal in Section III.B, it would weed out many of the least safe self-driving cars. Moreover, this approach is a better option than having no safety standards for driverless cars, and it is a better option than not letting driverless cars onto the road for want of an effective safety standard. Section III.D concludes this part by discussing additional ways of protecting motor vehicle safety in the era of the autonomous vehicle: enhanced labeling requirements and new rating systems.

A. Taxonomy of FMVSS

NHTSA's statutory mandate is to promulgate performance standards for motor vehicles and motor vehicle equipment.[196] When setting performance standards for autonomous vehicles, NHTSA will have to consider the level at which it designs standards. This section develops a brief taxonomy of FMVSS to help policymakers and academics better understand an important aspect of standard setting: the level at which the standard regulates. This taxonomy was designed with autonomous vehicles in mind, but it is applicable to all motor vehicle safety regulations. In short, there are three levels at which NHTSA can develop FMVSS. From micro to macro, the three options are: part-level standards, function-level standards, and system-level standards. NHTSA currently issues both part- and function-level FMVSS. The Agency has never issued a system-level FMVSS. This section builds out this taxonomy and argues that NHTSA should use function-level standards to regulate level three vehicles and system-level standards to regulate level four and five autonomous vehicles.

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[195] Stephen P. Wood, et al., *The Potential Regulatory Challenges of Increasingly Autonomous Motor Vehicles*, 52 SANTA CLARA L. REV. 1423, 1459-64 (2012).

[196] 49 U.S.C. § 30101.

1. Part-Level Standards

Part-level standards are standards designed to mandate the existence or design of a particular automobile part. A paradigmatic example of a part-level standard would be a FMVSS requiring that all autonomous vehicles use a particular type of sensor. NHTSA has adopted some part-level standards. For example, in *Chrysler Corp. v. United States Department of Transportation*, the Sixth Circuit upheld a FMVSS regulating the exact size of headlights.[197] More recently, NHTSA promulgated a revised version of FMVSS 111, which requires that automakers outfit all new cars with backup cameras beginning in May 2018.[198] This is also a part-level standard because it mandates the existence of an automobile part.

There are some advantages to part-level standards. From NHTSA's perspective, one advantage is that the Agency can narrowly tailor its safety regulations to require the exact approach it thinks best. Additionally, some manufacturers might prefer the clarity of part-based standards because part-based standards remove uncertainty. Instead of a FMVSS that sets a general performance standard and then requires companies to figure out how to meet that standard, companies can simply follow NHTSA's instructions—*e.g.*, install a backup camera or design headlights that are a particular size.

Yet part-level standards have serious drawbacks. First, they often limit automakers' ability to find the most economical solution to a safety problem. For example, instead of mandating backup cameras, NHTSA could have issued a rule requiring that manufacturers design automobiles so that drivers can see directly behind the vehicle while backing up. Manufactures might have met this standard by installing backup cameras, but they also might have chosen to install additional mirrors so that drivers could see behind their cars. NHTSA foreclosed this alternative by issuing a part-level standard. Second, part-level standards can inhibit the development of new technologies. For instance, were NHTSA to require that all autonomous vehicles use certain sensors, the Agency might impede the development and deployment of alternative sensors that were even safer. Third, a parts-level approach is sometimes unlawful under the MVSA. The MVSA permits NHSTA to impose performance standards, but not design requirements. While the Agency receives considerable deference when courts assess whether a FMVSS relates to safety or is a

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[197] Chrysler Corp. v. U.S. Dep't of Transp., 515 F.2d 1053, 1057, 1061 (6th Cir. 1975) (permitting NHTSA to regulate the size of headlights to ensure the ready availability of auto parts nationwide).

[198] 49 C.F.R. §571.111(S5.5) (2017).

design requirement,[199] this discretion is not unlimited. Were NHTSA to become overly focused on part-level standards in the era of driverless cars, automakers would likely sue, and they might win.

The disadvantages of part-level FMVSS outweigh the advantages in most regulatory scenarios. This is especially true when it comes to self-driving vehicles. Because autonomous vehicle technology is developing rapidly, part-based standards would impede technological progress by mandating suboptimal technologies or approaches. For these reasons, NHTSA should not promulgate part-based standards when it comes to the driving function of autonomous vehicles.[200]

2. Function-Level Standards

Function-level standards are standards that relate to particular motor vehicle activities or processes. For example, a FMVSS requiring that all automobiles be able to stop within a certain number of feet while traveling at a certain speed would be a function-level performance standard for braking systems. In the context of autonomous vehicles, a FMVSS requiring that a driverless car stay within the painted lines of an automobile lane during sixty miles of track testing would be a function-level standard.

Function-level standards are generally a better option for achieving motor vehicle safety than part-level standards. They require automakers to meet performance benchmarks without requiring them to do so in a particular way. This leaves manufacturers free to innovate. They can produce cars that are even safer than a parts-based approach might allow, and they can pursue NHTSA-mandated performance standards in an economically efficient manner.

In the era of autonomous vehicles, however, function-based standards have one glaring problem: they are insufficiently dynamic. It is relatively easy to program an autonomous vehicle to accomplish a particular task, like staying between the lines while driving, or stopping within a certain number of feet when an object is in the road.[201] The bigger challenge is ensuring

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[199] *See generally Chrysler Corp.*, 515 F.2d at 1057. *See also* Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837 (1984) (deferring to an agency interpretation in light of statutory ambiguity).

[200] Part-based standards might be appropriate if directed at an aspect of autonomous vehicles unrelated to their driving abilities. For instance, NHTSA might mandate electronic data recorders capable of transmitting crash or other data in real time so that the Agency could actively monitor the safety of autonomous vehicles. This Article takes no position on whether NHTSA should do so.

[201] Mashaw & Harfst, *supra* note 33, at 272 ("If a standardized test environment were

that autonomous vehicles are safe when they encounter the hustle and bustle and unpredictability of day-to-day traffic. Function-based standards are insufficient to ensure motor vehicle safety given the challenges real-world drivers encounter on a daily basis.

3. System-Level Standards

A system-level standard is a standard that requires an overall level for safety of an entire driving system.[202] For example, a system-level approach to self-driving cars could mandate that autonomous vehicles only experience a certain number of crashes, injuries, or fatalities relative to a certain number of miles driven. System-level standards are thus more dynamic than other types of standards because they are designed to ensure the aggregate driving safety of a vehicle rather than the safety of a particular part or function. While NHTSA has never before issued a system-level FMVSS, in the era of the self-driving car, it should.

A system-level approach is within the textual mandate of the MVSA, which authorizes NHTSA to issue "minimum standard[s] for motor vehicle or motor vehicle equipment performance."[203] So long as a system-level standard is practicable, objective, and meets the need for motor vehicle safety, a court would likely uphold the regulation.[204]

There are many potential benefits to system-level standards. First, these standards could protect safety by focusing on what matters—driver and pedestrian safety in real-world situations. Second, a system-level approach would encourage innovation by focusing on measurable safety metrics (crashes, fatalities, injuries, or on-road performance), not on how automakers achieve these results. This would allow automakers to innovate boldly, as long as their innovations improve safety. Third, a system-level approach is especially practical in situations where manufacturers deploy markedly different automotive designs, because system-level standards can protect safety without picking winners and losers.

Of course, there are some downsides to a system-level approach. System-level standards cannot be narrowly tailored to address discrete safety problems. Additionally, regulating at the system-level instead of the

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specified, it would be child's play to program a vehicle to pass the test. But that would tell the Agency and the public little about whether the vehicle could perform safely in the countless actual environments that vehicles encounter every second of every day.").

[202] *See* NHTSA, AUTOMATED DRIVING SYSTEMS 2.0, *supra* note 135, at 5 (discussing a "systems-engineering approach with the goal of designing [autonomous driving systems] free of unreasonable safety risks").

[203] 49 U.S.C. § 30102(a)(10) (2012).

[204] *See supra* Section I.B.

function-level might leave potential safety gains on the table. Automakers could opt for unnecessarily risky part designs simply because their vehicle is capable of satisfying the broader system-level FMVSS on the books.[205] Finally, system-level standards do not encourage uniformity in design, which might make servicing cars and replacing car parts more expensive.[206]

4. Regulating Level Three Vehicles

NHTSA should regulate level three autonomous vehicles using function-level standards. Level three vehicles are conditionally autonomous.[207] A driver must always sit behind the wheel, ready to take over with notice. However, the driver need not actively monitor the road in the absence of notice.[208] Different level three vehicles have vastly different capabilities. For example, one level three vehicle might be able to navigate rural highways without human intervention but require driver involvement at all other times. Another might be completely autonomous on all roadways, requiring driver involvement only in severe weather. Given these disparate capabilities, system-level standards are not viable. Comparing aggregate driving system safety across manufacturers and models is not sensible when the vehicles' driving systems are engaged in vastly different driving tasks. And because level three cars are a rapidly developing technology, part-based standards are also inappropriate.

This leaves function-level standards, which NHTSA should use to ensure the safety of level three vehicles. For example, NHTSA could mandate that all level three vehicles equipped with interstate autopilot features be capable of staying within an average highway lane for one hundred miles without touching the stripes. Or NHTSA could mandate that all such vehicles demonstrate their ability to slow down, accelerate, and/or change lanes in response to a vehicle encroaching on the test vehicle's lane. NHTSA, of course, would have to carefully specify its rules and testing parameters, but doing so would not pose an especially difficult problem.[209] While level three vehicles pose thorny regulatory challenges, NHTSA could meet these challenges through function-level FMVSS. In time, NHTSA

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[205] If a particular safety risk is unreasonable, NHTSA could exercise its recall authority.

[206] *See generally* Chrysler Corp. v. U.S. Dep't of Transp., 515 F.2d 1053, 1057, 1061 (6th Cir. 1975) (upholding NHTSA regulation of headlight size to ensure easy availability of replacement parts).

[207] NHTSA, AUTOMATED DRIVING SYSTEMS 2.0, *supra* note 135, at 4.

[208] *Id.*

[209] *See* Wood, *supra* note 195, at 1461-62 (explaining how NHTSA could execute such tests).

might even require that all new cars come equipped with certain level three features in furtherance of the Agency's mandate "to reduce traffic accidents and deaths and injuries resulting from traffic accidents."[210]

5. *Regulating Level Four and Five Vehicles*

NHTSA should regulate level four and five autonomous vehicles using system-level standards. Level four vehicles are "capable of performing all driving functions under certain conditions," and level five vehicles are "capable of performing all driving functions under all conditions."[211] Given the revolutionary nature of these driving systems, NHTSA must carefully assess how best to regulate. It is vital that NHTSA (a) not impede the development of self-driving technologies and (b) ensure that these technologies are safe. When it comes to accomplishing these goals, both part- and function-level standards fall short, as explained below. NHTSA should instead adopt system-level standards for driverless cars. This would best protect motor vehicle safety without slowing innovation.

First, part-level standards would impede the development of driverless cars and fail to adequately protect safety. Because autonomous vehicle technology is still emerging, mandating a particular approach at the part-level would be a mistake. NHTSA might mandate suboptimal technologies or foreclose the development and deployment of more effective alternatives. Practically speaking, autonomous vehicle technology varies too much between manufacturers for this approach to work. Furthermore, it is unlikely that any part-level standard would adequately protect motor vehicle safety. The primary challenge facing autonomous vehicle manufacturers is building effective software, and it is unlikely that NHTSA could develop a part-level standard to ensure that developers build effective driving software.

Second, while function-level standards are less likely to impede the development of autonomous vehicles than part-level standards, function-level standards are not sufficiently dynamic to ensure autonomous vehicle safety. It is relatively easy for manufacturers to program autonomous vehicles to accomplish particular tasks, which is what function-level standards would regulate. The real challenge is developing autonomous cars that can respond to complex road conditions and unexpected traffic and pedestrian events. Function-level standards could ensure that autonomous

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[210] 49 U.S.C. § 30101 (2012).

[211] NHTSA, AUTOMATED DRIVING SYSTEMS 2.0, *supra* note 135, at 25 ("This document will be updated periodically to reflect advances in technology, increased presence of ADSs on public roadways, and any regulatory action or statutory changes that could occur at both the Federal and State levels.").

vehicles are safe in particular ways, but they would not be able to ensure the overall safety of self-driving cars.[212]

System-level standards, on the other hand, would not impede the development of autonomous vehicle technology and would protect motor vehicle safety better than any regulatory alternative.[213] Because system-level standards measure the overall safety of a vehicle and not the safety of a particular part or function, manufacturers have free range to experiment as long as they meet an aggregate measure of safety—*e.g.* an average distance between vehicular injuries. System-level standards thus allow for more flexibility than both part- and function-level standards, and they do so in a way that does not compromise safety. This is important in the context of autonomous vehicles because design and technological approaches vary markedly between auto-manufacturers. NHTSA needs to ensure that automakers have maximal flexibility while still fulfilling its obligation to protect the public. System-level standards make this possible.

One might wonder why NHTSA has not yet implemented system-level standards if this regulatory approach is such a boon. The primary reason is that the best system-level approaches require vehicles to drive tens of millions of miles to prove their safety.[214] In a world of human-driven cars, this would have been extremely expensive and time consuming. Additionally, it might have been unlawful under the MVSA's objectivity requirement given the subjectivity inherent in human test drivers. When a machine is doing the driving, however, these hurdles are surmountable. The next section proposes an innovative, system-level approach to regulating autonomous vehicles.

B. Proposed Regulatory Framework

In the era of autonomous vehicles, NHTSA must protect safety without stifling technological progress. This section proposes one way in which NHTSA might do so. The proposal calls on NHTSA to issue a system-level

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[212] To force targeted improvements in autonomous vehicle technology, NHTSA might someday introduce function-level standards. This Article takes no position on whether the Agency should ever do so.

[213] Permanently prohibiting autonomous vehicles would prevent the risks inherent in self-driving cars but would also cement the deadly status quo when it comes to motor vehicles. Banning autonomous vehicles would likely result in hundreds of thousands of unnecessary deaths over the coming decades. *See generally* Kalra & Groves, *supra* note 10.

[214] *See* Nidhi Kalra & Susan M. Paddock, *Driving to Safety: How Many Miles of Driving Would It Take To Demonstrate Autonomous Vehicle Reliability?*, RAND CORP. 1 (2016), https://www.rand.org/content/dam/rand/pubs/research_reports/RR1400/RR1478/RAND_RR1478.pdf [hereinafter Kalra & Paddock, *Driving to Safety*].

FMVSS requiring automakers to prove the safety of their autonomous vehicles through extensive on-road testing. Congress and NHTSA would need to develop a broader exemption program so that vehicles could log these test miles, which Congress already seems inclined to develop.[215] This proposal is geared toward level four and five autonomous vehicles because current regulatory approaches are sufficient to regulate level one through three vehicles.[216] This section begins by laying out this proposed regulatory framework in more depth. It then examines four tough choices shaping this framework and explains why those choices were made. The section concludes by evaluating the proposal's legality.

1. The Proposal

NHTSA should promulgate a FMVSS allowing level four and five autonomous vehicle models on the road once manufacturers prove the vehicles' safety through extensive on-road testing. More specifically, this FMVSS would require that autonomous vehicles experience no more crashes per mile driven—in representative environmental and geographic conditions—than today's human-driven cars.[217] Each new model of autonomous vehicle would have to satisfy this FMVSS before being released to the public for sale.[218]

The FMVSS would need to specify the sample size (overall number of miles driven) from which a vehicle's average rate of crashing was calculated. I propose that Congress direct NHTSA to set this sample size at ten million miles. This is enough miles to get a much better handle on vehicle safety than track testing or function-level regulations, but not so onerous that automakers could not satisfy the requirement. For instance, if an autonomous vehicle company operated 200 test vehicles for twenty hours a day, traveling at an average speed of 25 miles per hour, it would take just a hundred days to demonstrate a vehicle's safety. While this

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[215] Linda Chiem, *supra* note 181 (explaining that the SELF DRIVE Act, passed by the House of Representatives in September 2017, "would let automakers each test up to 100,000 self-driving vehicles without meeting existing auto safety standards and would bar states from imposing their own rules related to the design, manufacturing and performance of highly automated vehicles").

[216] *See supra* Section III.A.4.

[217] As autonomous vehicle technology matures, NHTSA should adjust this standard so that vehicles have to achieve progressively higher rates of safety. For now, though, this standard allows self-driving cars to get on the road as soon as they demonstrate a basic level of safety.

[218] Minor updates to an autonomous vehicle's software midway through testing should not negate testing that has already been conducted, as this would disincentive repairs and, consequently, public safety.

approach may or may not definitively prove, as a statistical matter, that the car is safer than current models,[219] it would provide sufficiently rigorous testing to make it rational for regulators to conclude that the autonomous vehicle is likely safe enough for public use under most conditions.

Additionally, NHTSA should require automakers to report all autonomous vehicle crashes to the Agency within forty-eight hours, along with the overall number of miles driven by that particular model of autonomous vehicle nationwide. This would allow NHTSA to monitor the overall safety of autonomous vehicles and issue recalls or revoke testing exemptions if a particular model of autonomous vehicle was not safe. In a sense, this additional data collection expands the testing phase into the mass deployment phase, allowing the Agency to actively monitor safety with a high-degree of precision and certainty.

Finally, in order to facilitate the real-world testing of autonomous vehicles, Congress should expand NHTSA's exemption program and authority. Currently, NHTSA has the authority to exempt from FMVSS a maximum of twenty-five hundred vehicles per year, per manufacturer, for up to two years—if an "exemption would make easier the development or field evaluation of a new motor vehicle safety feature providing a safety level at least equal to the safety level of the standard."[220] Congress should pass a bill expanding these exemptions so that manufacturers can simultaneously test tens of thousands of vehicles if they so desire. The SELF DRIVE Act, a bill passed by the House of Representatives and awaiting consideration in the Senate, would do just that.[221] The bill permits automakers to exempt up to a hundred thousand autonomous vehicles each year for the purpose of testing highly autonomous driving technologies. The bill permits twenty-five thousand exemptions per manufacturer in the first year, fifty thousand in the second year, and a hundred thousand thereafter.[222] Moreover, exemptions would last up to four years under this bill, [223] whereas the current limit is two years.[224] In order to qualify for these exemptions, manufacturers must present "test data, including both on-road and validation and testing data showing" that the safety level of the particular autonomous feature being tested "at least equals the safety level

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[219] *See* Kalra & Paddock, *Driving to Safety*, *supra* note 214, at 4-6 (examining the number of miles required to prove an autonomous vehicle meets different safety benchmarks with different degrees of certainty given different assumptions).

[220] 49 U.S.C. §§ 30113(b)(3), (d), (e) (2012).

[221] SELF DRIVE Act, H.R. 3388, 115th Cong. (as passed by H.R., Sept. 6, 2017).

[222] *Id.* at § 6(3).

[223] *Id.* at § 6(4).

[224] 49 U.S.C. § 30113(e).

of the standard for which exemption is sought," or that "the vehicle provides an overall safety level at least equal to the overall safety level of nonexempt vehicles."[225] By expanding exemptions but requiring automakers to make a prima facie showing of safety in order to receive them, this congressional proposal nicely balances safety and technological progress. Adopting it would make viable the FMVSS described above.

This proposed FMVSS protects public safety better than available alternatives because it evaluates autonomous vehicle performance over millions of miles. Also, by regulating autonomous vehicles at the system-level, the proposal regulates without stifling innovation. Finally, the proposal has the added advantage of conforming to existing practice since automakers already assess the safety of their autonomous vehicles through extensive on-road testing.[226]

2. Four Tough Choices

The model outlined above reflects a number of difficult policy choices that merit further explanation. This section addresses four such choices.

First, the proposal calls for letting autonomous vehicles on the road once testing indicates that they are as safe or safer than today's human-driven cars. Why not twice as safe as human-driven cars, like some have argued?[227] Ultimately, the as-safe-or-safer-than standard is best because it adequately protects safety in the short-term and advances it in the long-term. Autonomous vehicles learn by driving. They share what they learn with other autonomous vehicles in their developer's fleet. The more driving autonomous vehicles do, the safer they tend to become. As Nidhi Kalra and David G. Groves explain in a thoughtful RAND report, *The Enemy of the Good: Estimating the Cost of Waiting for Nearly Perfect Automated Vehicles*, allowing autonomous vehicles onto the road once they are only ten percent safer than human-driven cars instead of seventy-five to ninety percent safer would likely save hundreds of thousands of lives due to compounding safety gains from earlier data-based improvements.[228] The

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[225] SELF DRIVE Act, H.R. 3388 § 6(2).

[226] Kalra & Paddock, *Driving to Safety*, *supra* note 214, at 2 ("Perhaps the most logical way to assess safety is to test-drive autonomous vehicles in real traffic and observe their performance. Developers of autonomous vehicles rely upon this approach to evaluate and improve their systems . . . .").

[227] *See* HOD LIPSON & MELBA KURMAN, DRIVERLESS: INTELLIGENT CARS AND THE ROAD AHEAD 102-103 (2016) (arguing that autonomous vehicles should only be allowed on the road once they are shown to be twice as safe as human-driven cars).

[228] Kalra & Groves, *Estimating the Cost of Waiting for Nearly Perfect Automated Vehicles*, *supra* note 10, at 29.

bottom line: "waiting for [highly autonomous vehicles] that are many times safer than human drivers misses opportunities to save lives."[229] Moreover, the as-safe-or-safer-than standard is a floor, not a ceiling. It is probable that most autonomous vehicles will *exceed* this floor in testing. While I think the as-safe-or-safer than standard is the best regulatory approach, an otherwise identical FMVSS requiring autonomous vehicles to be twice as safe as today's human-driven vehicles would still be an effective approach to managing the rise of driverless cars.

Second, the proposal calls for measuring safety based on crashes, not injuries or deaths. One might object, arguing that preventing fatalities and injuries is more important than preventing crashes (it is). The reason the proposal evaluates safety based on crashes rather than injuries is the rarity of motor vehicle deaths and injuries relative to motor vehicle crashes. Whereas there are over 190 crashes per one hundred million miles driven in the United States, there are just 1.09 fatalities and seventy-seven injuries per one hundred million miles driven.[230] A FMVSS requiring on-road testing for injuries or fatalities would need to require significantly more than ten million miles to measure the vehicles' effectiveness. Of course, NHTSA should pay attention to the number of injuries and fatalities sustained during the testing (and deployment) of autonomous vehicles, and if a particular model is linked to high fatalities or injuries, the Agency should investigate and exercise its recall authority as appropriate.

Third, the proposal calls for testing the safety of each new autonomous vehicle model. An alternative approach would be to consider the FMVSS satisfied once an automaker tested the safety of its autonomous driving software in any model. In other words, the test would be targeted at the autonomous driving system, not at the autonomous vehicle. Since software is the key to successful autonomous driving, this is not an unreasonable position. However, model-based testing is more appropriate for several reasons. First, sensors may be located in slightly different locations on different models of autonomous vehicles. This could influence the vehicle's safety. Additionally, manufacturers will likely upgrade sensors and other components with each model. Given the complexity of autonomous driving systems, it seems prudent to ensure the integrity of each new model through extensive on-road testing. If model-based testing proves too onerous, NHTSA should consider increasing the initial test mileage and then requiring a new test only when a company's autonomous

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[229] *Id.* at ix.

[230] Kalra & Paddock, *Driving to Safety*, *supra* note 214, at 2-4.

driving software changes substantially, such as with the introduction of an entirely new sensory input.

Fourth, the proposal does not require new testing each time a manufacturer updates an already released vehicle's autonomous driving software. Requiring extensive on-road testing before each software update is not a good idea for many reasons. To begin with, it is not practical. Manufacturers update their software frequently to correct glitches and to help the vehicles respond to previously unforeseen scenarios. Given the frequency of these updates, it is not viable to require extensive on-road testing for each patch. Additionally, requiring extensive on-road testing before the release of patches would discourage these updates, making autonomous vehicles less safe than they would otherwise be. Furthermore, NHTSA has suggested that manufacturers have a legal duty to update autonomous vehicles' driving software whenever they identify a safety flaw.[231] Requiring millions of miles of testing before each such update is unworkable.

3. The Proposal's Legality

The proposed FMVSS is probably permissible under current administrative law doctrine, though the question is close. Congressional action is needed to expand NHTSA's exemption program. This section evaluates whether the proposed FMVSS satisfies the substantive requirements of the MVSA.[232] It asks whether the proposed standard is practicable, meets the need for automotive safety, and is objective.

i. Practicability[233]

The MVSA's practicability requirement means that FMVSS must be technologically feasible, economically feasible, and feasible in light of public opinion.[234] First, the proposed regulation is economically feasible,

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[231] Safety-Related Defects and Automated Safety Technologies, 81 Fed. Reg. 65705, 65709 (Sept. 23, 2016) ("Additionally, where a software system is expected to last the life of the vehicle, manufacturers should take care to provide secure updates as needed to keep the system functioning. Conversely, if a manufacturer fails to provide secure updates to a software system and that failure results in a safety risk, NHTSA may consider such a safety risk to be a safety-related defect compelling a recall.").

[232] In drafting the FMVSS, NHTSA must also comply with the APA's and MVSA's procedural requirements. *See supra* Section I.B.2. Since the proposed regulation is just that, a proposal, I do not address the procedural legality of the potential FMVSS.

[233] For a doctrinal summary of practicability, see *supra* Section I.B.1.i.

[234] *Id.*

because it would neither "destroy a well-established industry"[235] nor have a "large economic effect" on an industry without clear safety benefits.[236] To the contrary, the proposed FMVSS would ensure that autonomous vehicles are able to reach consumers as soon as possible, so long as they are not more dangerous than other cars on the roadway. Second, there is no public feasibility problem because the proposed standard does not depend on public acceptance but rather on pre-market testing.[237]

Third, the proposed standard is technologically feasible. The question of technological feasibility is somewhat closer than the questions of economic feasibility and public opinion feasibility. This is because the case law on technological feasibility is in conflict with itself. In *Paccar Inc. v. NHTSA*, the Ninth Circuit struck down a NHTSA skid test regulation on technological feasibility grounds.[238] The court held that because NHTSA could not guarantee that the coefficient of a test surface would not change over time, it was not technologically feasible for manufacturers to "assure that their vehicles will exactly meet the objective standard when tested by NHTSA."[239] In contrast, the Sixth Circuit in *Chrysler Corp. v. United States Department of Transportation* explained that technological feasibility only requires that NHTSA not "impose standards so demanding as to require a manufacturer to perform the impossible" or that will "put a manufacturer out of business."[240] Under *Chrysler's* conception of technological feasibility, the regulation is likely permissible because it does not impose an impossible standard. Under *Paccar's*, it might not be since real-world road conditions are not *precisely* replicable. Still, there is a strong argument to be made that, by requiring autonomous vehicles to drive ten million miles, the standard is sufficiently replicable to survive *Paccar*. Given existing doctrinal ambiguity, courts should return to the plain meaning of the MVSA (which the *Paccar* Court failed to do in the first instance). The MVSA requires that FMVSS be "practicable."[241] Technological feasibility is simply a judicial construction of the term. Something is practicable if it is "reasonably capable of being

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[235] H & H Tire Co. v. U.S. Dep't of Transp., 471 F.2d 350, 355 (7th Cir. 1972).

[236] Nat'l Truck Equip. Ass'n v. NHTSA, 919 F.2d 1148, 1154 (6th Cir. 1990).

[237] *See* Pac. Legal Found. v. U.S. Dep't of Transp., 593 F.2d 1338, 1345 (D.C. Cir. 1979) (FMVSS "cannot be considered practicable unless we know . . . motorists will avail themselves of the safety system.").

[238] *See* Paccar Inc. v. NHTSA, 573 F.2d 632 (9th Cir. 1978).

[239] *Id.* at 644.

[240] Chrysler Corp. v. U.S. Dep't of Transp., 472 F.2d 659, 672-74 (6th Cir. 1972).

[241] 49 U.S.C. § 30111(a) (2012).

accomplished."[242] In this case, automakers are reasonably capable of building autonomous vehicles that experience no more crashes than today's human-driven cars. By looking at ten million miles of on-road data, regulators are reasonably capable of determining whether automakers have met this requirement.

ii. Meets the Need for Motor Vehicle Safety[243]

All FMVSS must meet the need for motor vehicle safety.[244] To meet the need for motor vehicle safety, a standard must have a genuine correlation with motor vehicle safety.[245] If a rule lacks "more than a remote relation" to motor vehicle safety, it is impermissible.[246] Additionally, a rule must actually improve motor vehicle safety.[247] The proposed FMVSS would satisfy these requirements because it is directly related to the on-road safety of autonomous vehicles and because it is reasonably likely to improve automotive safety by preventing autonomous vehicles from reaching the road if they experience more crashes than human-driven cars.

iii. Objectivity[248]

The proposed regulation is most vulnerable on objectivity grounds. To be valid, all FMVSS must be "stated in objective terms."[249] Objectivity requires (a) that "tests to determine compliance must be capable of producing identical results when test conditions are exactly duplicated," (b) that standards must "be decisively demonstrable by performing a rational test procedure," and (c) that "compliance is based upon the readings obtained from measuring instruments as opposed to the subjective opinions of human beings."[250] The proposed rule almost certainly satisfies the latter two requirements. The first requirement, however, poses a more difficult

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[242] *Practicable*, BLACK'S LAW DICTIONARY (10th ed. 2014).

[243] For an overview of the MVSA requirement that FMVSS meet the need for motor vehicle safety, see *supra* Section I.B.1.ii.

[244] 49 U.S.C. §§ 30111(a), (b)(3) (2012).

[245] H & H Tire Co. v. U.S. Dep't of Transp., 471 F.2d 350, 355 (7th Cir. 1972).

[246] Nat'l Tire Dealers & Retreaders Ass'n v. Brinegar, 491 F.2d 31, 33 (D.C. Cir. 1974) (striking down a tire retreading regulation as not being correlated with motor vehicle safety).

[247] *See* Paccar, Inc. v. NHTSA, 573 F.2d 632, 643 (9th Cir. 1978) ("The agency has a heavy responsibility . . . to ascertain, with all reasonable probability, that its regulations do not produce a more dangerous highway environment than that which existed prior to governmental intervention.").

[248] For a doctrinal summary of objectivity, see *supra* Section I.B.1.iii.

[249] 49 U.S.C. § 30111(a) (2012).

[250] Chrysler Corp. v. U.S. Dep't of Transp., 472 F.2d 659, 676 (6th Cir. 1972).

question: is extensive real-world testing "capable of producing identical results when test conditions are exactly duplicated"?

One might argue that the proposal is not capable of producing identical results when test conditions are exactly duplicated because real-world road conditions are never the same from mile to mile. Given the sophistication of autonomous driving systems, one might even argue that since the vehicles respond differently based on minor environmental variations, there is no way to objectively test these cars. In defense of the standard's objectivity, however, extensive real-world testing does reduce variation by increasing the quantity of test data. While a five-mile on-road test is not objective, a ten million or hundred million-mile test is. This argument lines up better with the plain meaning of objectivity. In plain language, a standard is objective if it is "externally verifiable."[251] The proposed FMVSS externally verifies the safety of autonomous vehicles by collecting data over the course of ten million miles of diverse, on-road driving. As long as the FMVSS is backed by sound data collection processes, there is no subjectivity with respect to whether or not a vehicle has satisfied the standard. For those interested, this is consistent with the MVSA's legislative history. The House Committee on Interstate and Foreign Commerce explained that the objectivity requirement exists to ensure "that the question of whether there is compliance with the standard can be answered by objective measurement and without recourse to any subjective determination."[252] Since the proposed FMVSS relies on verifiable testing data as opposed to subjective determinations, it is objective under this framing. Lastly, a court might plausibly conclude that the phrase "objectivity" is ambiguous, at least in this particular context. If so, the lawfulness of the proposed on-road testing framework would receive *Chevron* deference—an administrative law doctrine giving judicial deference to an agency's interpretations of ambiguous statutes.[253] While the question is a close one, the proposed FMVSS is most likely permissible under the MVSA's objectivity requirement.

Together, the arguments outlined above make a strong case for the lawfulness of the proposed FMVSS. Insofar as one thinks the proposed standard is vulnerable on objectivity or practicability grounds, those issues are statutory. There is nothing preventing Congress from adopting the proposal by statute or from passing a law declaring that the proposal satisfies the MVSA's substantive requirements (practicability, objectivity,

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[251] *Objective*, BLACK'S LAW DICTIONARY (10th ed. 2014).

[252] *Chrysler Corp.*, 472 F.2d at 675 (quoting H.R. REP. NO. 89-1776, at 16 (1966)).

[253] Chevron U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837 (1984).

and meeting the need for motor vehicle safety). Given the importance of protecting safety in a way that neither stifles innovation nor harms the American automotive industry, and given this proposal's ability to accomplish both goals, Congress should pass such a law to minimize the risk of litigation.

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The proposal described in this section is the best approach to regulating self-driving cars now. As autonomous vehicles mature, the ideal regulatory approach might change. For example, if self-driving cars are less safe than anticipated, NHTSA should impose more rigorous testing requirements, perhaps increasing the on-road testing requirement to a hundred million miles and testing for fatalities and injuries, not just crashes. At present, however, this proposal strikes an ideal balance: it protects public safety without stifling innovation.

C. Second-Best Regulatory Framework

The proposal described in Section III.B is the best approach to regulating autonomous vehicles. If NHTSA declines to pursue this path or a court forecloses it, the Agency should pursue a second-best regulatory approach: FMVSS requiring extensive and dynamic track testing for autonomous vehicles. Stephen P. Wood, a senior NHTSA official involved in rulemaking, and three other NHTSA attorneys proposed such an approach in a 2012 law review article.[254] They convincingly argue that their approach is both technologically and legally viable.[255]

In short, they propose drafting FMVSS requiring that autonomous vehicles perform adequately when encountering complex (albeit objective and repeatable) test scenarios.[256] "For example," they explain,

> if NHTSA was to test an autonomous motor vehicle's ability to accurately avoid pedestrians at an intersection, the agency could define a test intersection (e.g., four way intersection controlled by traffic light) and present the vehicle with various test objects defined so as to replicate the appearance of a pedestrian to the vehicle's sensors. In such a test, ranges of values could be utilized to make the test more representative of the possibly erratic trajectory of a pedestrian. For example, the standard could establish that the pedestrian

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[254] Wood, et al., *supra* note 195, at 1459-64. Their article is essential reading for those interested in the challenges facing NHTSA in the era of the driverless car, as well as possible solutions.

[255] *Id.*

[256] *Id.* at 1459-62.

> test object could begin at any point within a defined area in the intersection and proceed at any vector at any speed up to 10 mph.[257]

These testing procedures might allow regulators and manufacturers to assess autonomous vehicle performance at something like the system-level. Instead of simply looking at how effective the vehicle's automatic braking system is, this approach would test the vehicle's object identification abilities, steering system, braking system, and more. Other complex scenarios could be designed to test autonomous vehicles' abilities in other contexts.[258]

The primary drawback of this approach is that it would not test safety as thoroughly as extensive real-world testing.[259] Wood concedes that the tests could not "evaluate the vehicle's performance under all possible conditions that might occur in the real world."[260] Instead, the tests aim to make it "rational to conclude that . . . the vehicles will perform well in the vast majority of real world conditions they can be expected to encounter."[261] While not as dynamic or thorough as the testing proposed in Section III.B, these testing procedures would probably keep the most dangerous autonomous vehicles off the road. Moreover, this approach beats not testing the safety of autonomous driving systems at all or not letting consumers purchase driverless cars because the Agency has not devised a perfect testing regime. Thus, if NHTSA rejects the proposal in Section III.B, it should adopt this approach.

D. Labeling Requirements and Rating Systems

In addition to setting performance-based FMVSS for self-driving cars, NHTSA should take additional steps to ensure that consumers understand the capabilities of their autonomous or semi-autonomous vehicles. To that end, NHTSA should pursue some combination of the following three strategies: require accurate and transparent labeling of autonomous vehicles, progressively incorporate automated features into the Agency's New Car Assessment Program (NCAP) ratings, and establish new rating metrics to measure and convey the relative safety of autonomous vehicles.

First, NHTSA should work to ensure that automakers are accurately labeling and explaining their vehicles' autonomous capabilities to

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[257] *Id.* at 1461.

[258] For example, another scenario might test the ability of autonomous vehicles to avoid swerving vehicles in highway-like conditions.

[259] *See supra* Section II.B.

[260] Wood, et al., *supra* note 195, at 1462.

[261] *Id.*

customers. Survey data show that the public is already confused about the autonomous features found in vehicles.[262] This confusion will likely increase as automakers introduce new and more advanced features. Moving forward, accurate and transparent labeling is important so that consumers understand what autonomous tasks their vehicles are, and are not, capable of performing. This will be especially important when level zero through five cars are all for sale and sharing road and dealership space.

The federal government already has labeling requirements for automobiles.[263] Expanding these requirements to autonomous features through FMVSS would be easy and consistent with Congress's instruction to NHTSA that it promulgate rules "to ensure that crash avoidance information is indicated next to crashworthiness information on stickers placed on motor vehicles by their manufacturers."[264] Under its existing authority, NHTSA could issue a rule requiring that automakers label all new cars with the vehicle's level of automation (SAE levels zero through five). NHTSA could also issue level-specific labeling requirements. For instance, the Agency could require that the labels on level three cars clearly explain how quickly drivers must be ready to assume control of their vehicles.[265] As autonomous vehicles continue to develop, NHTSA should update its labeling standards to improve consumer understanding and enhance motor vehicle safety.

Second, NHTSA should incorporate automated driving features into its NCAP ratings. NCAP is a program that "attempts to inform consumers concerning the comparative safety performance of new vehicles through a five-star rating system based on crash testing protocols and information concerning whether new vehicles contain optional safety features."[266] In recent years, NHTSA has said it hopes to eventually incorporate advanced crash-avoidance technologies into its rating system—including automated driving technologies—once they mature.[267] As autonomous driving

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[262] *See* Courtney Bjorlin, *Autonomous Car Survey: Public Lacks Clarity on Current Features*, INTERNET OF THINGS INST. (Aug. 12, 2017), http://www.ioti.com/automotive/autonomous-car-survey-public-lacks-clarity-current-features.

[263] *See, e.g.*, Requirements for Manufacturers of Motor Vehicles, 49 C.F.R. § 567.4 (2011) (requiring labeling from manufacturer for basic structural information); Vehicle Labeling, 40 C.F.R. § 86.1807-01 (2011) (labeling requirements for motor vehicle emissions information).

[264] 49 U.S.C. § 32302(c) (2010).

[265] For example, within five seconds of an audio or visual alarm.

[266] Mashaw & Harfst, *supra* note 33, at 172.

[267] New Car Assessment Program, 80 Fed. Reg. 78,522, 78,565 (Dec. 16, 2015) ("Several advanced technologies that are good candidates for this consumer information program are in various stages of development but are not ready at this time. For example, intersection movement assist (IMA), lane keeping support (LKS) systems, automatic

features develop, NHTSA should begin factoring these technologies into NCAP ratings. Doing so will improve consumer understanding of vehicles' comparative safety and incentivize automakers to incorporate life-saving autonomous driving technologies into new vehicles.

Third, NHTSA should create autonomous-vehicle-specific safety ratings so that consumers can better understand autonomous vehicles' relative safety. Hod Lipson and Melba Kurman, for instance, propose a "humansafe" rating that would evaluate how safe autonomous vehicles are relative to human-driven cars.[268] Their rating would compare the mean distance between failures—crashes, injuries, or fatalities—of autonomous and human-driven vehicles.[269] If an autonomous vehicle experienced an average of three times fewer crashes than human-driven cars, it would receive a humansafe rating of 3.0, and so on. Such a rating system would allow consumers to easily compare the relative safety of different autonomous vehicles when making a purchase. This approach differs from NCAP because it would not be used to rate non-autonomous vehicles. Lipson and Kurman's rating system, or one like it, is probably not viable until autonomous vehicle technology matures and extensive data collection begins. Once that happens, however, NHTS should consider establishing such a program.[270] This would promote consumer knowledge about autonomous vehicles and incentivize a safety-enhancing race to the top between automakers.

Performance-based FMVSS are needed so that autonomous vehicles can reach the public as soon as they are safe. Labeling requirements and rating systems complement this effort by providing the public with the information necessary to make informed buying decisions.

CONCLUSION

The driverless car revolution is beginning. Autonomous vehicles will change how Americans travel, work, and live. They have the potential to save tens of thousands of lives, maybe even hundreds of thousands, over the coming decades. Self-driving cars will also democratize transportation in

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collision notification (ACN)/advanced automatic collision notification (AACN) systems, distraction guidelines, and driver alcohol detection system for safety (DADSS). These technologies are briefly described below. NHTSA is researching these technologies and requests comment on them to aid this research."); *see* Mashaw & Harfst, *supra* note 33, at 259.

[268] LIPSON & KURMAN, *supra* note 227, at 103-04.

[269] *Id.*

[270] For NHTSA's authority to issue such rule, see 49 U.S.C. § 32302 (2010).

ways not seen since the rise of the personal automobile, giving the elderly and the disabled access to the freedoms of self-initiated travel. Auto manufacturers, technology companies, and governments should do all they can to accelerate this revolution.

Innovative solutions are needed to protect public safety without stunting the development of self-driving cars. So far, the academic literature has said relatively little about how to accomplish this task.[271] This Article was designed to advance this conversation by offering a possible solution: NHTSA should issue a FMVSS that regulates autonomous vehicle safety at the system-level, assessing safety by measuring autonomous vehicles' on-road performance over the course of millions of miles.[272] This proposal would leave automakers and technology companies free to develop and deploy driverless cars—as long as they are safe.

Driverless cars can make roadways safer, transportation more accessible, and lives more pleasant. For this to happen, NHTSA and Congress must act so that autonomous vehicles are able to reach consumers quickly and safely. Self-driving cars are nearly here. The time to identify and implement solutions is now. For academics, policymakers, and innovators, this Article aims to provide a useful starting point.

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[271] *But see, e.g.*, Wood, et. al, *supra* note 195. *See also* Sarah E. Light, *Advisory Nonpreemption*, 95 WASH U. L. REV. 325 (2017).

[272] *See supra* Section III.B for the details of this proposal.

Hounds at the Hospital, Cats at the Clinic: Challenges Associated with Service Animals and Animal-Assisted Interventions in Healthcare Facilities

Rebecca J. Huss*

I. INTRODUCTION

Just as service and companion animals are part of many peoples' everyday lives, these animals continue to play an important role when an individual is undergoing medical treatment.[1] It appears that an increasing

* © Rebecca J. Huss, 2017 Professor of Law and Phyllis and Richard Duesenberg Chair in Law, Valparaiso University Law School.

[1] Edward T. Creagan et al., *Animal-Assisted Therapy at Mayo Clinic: The Time Is Now*, 21 COMPLEMENTARY THERAPIES IN CLINICAL PRAC. 101 (2015) (discussing the role of

number of persons with disabilities are partnering with service animals for assistance on a daily basis.[2] People with disabilities undergoing medical

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companion animals and pet therapy and describing the program at the Mayo Clinic); Marguerite O'Haire, *Companion Animals and Human Health: Benefits, Challenges, and the Road Ahead*, 5 J. VETERINARY BEHAV. 226, 227 (2010) (discussing the relationship between humans and companion animals and the field of human-animal interactions); *Pet Industry Market Size & Ownership Statistics*, AM. PET PRODUCTS ASS'N, https://americanpetproducts.org/press_industrytrends.asp (last visited Jan. 25, 2018) (citing the 2017–2018 APPA National Pet Owners Survey that estimates sixty-eight percent of households in the United States own a pet).

[2] CAL. SENATE BUS. PROFESSIONS & ECON. DEV. COMMITTEE, FAKE SERVICE DOGS, REAL PROBLEM OR NOT?: HEARING ON THE POSSIBLE USE OF FAKE SERVICE DOGS AND FAKE IDENTIFICATION BY INDIVIDUALS TO OBTAIN SPECIAL ACCESS TO HOUSING, PUBLIC PLACES OR AIRPORTS/AIRLINES FOR THEIR ANIMAL BACKGROUND PAPER 7 (Feb. 24, 2014), http://sbp.senate.ca.gov/sites/sbp.senate.ca.gov/files/Background%20Paper%20for%20Fake%20Service%20Dog%20Hearing%20(2-14-14).pdf [hereinafter CALIFORNIA BACKGROUND PAPER] (citing to Service Dog Central, which estimates the number of task trained service dogs to be between 100,000 and 200,000); Barbara Handelman, *Service Dogs: Ethics and Education*, THE INT'L ASS'N OF ANIMAL BEHAV. CONSULTANTS J. (June 2016), https://summer2016.iaabcjournal.org/service-dogs-ethics-and-education/ (reporting on the growing demand for trained service dogs); Beth Teitell, *Service Dogs Barred, Doubted, and Deeply Treasured*, BOS. GLOBE (Sept. 18, 2013), https://www.bostonglobe.com/lifestyle/2013/09/18/the-growing-number-dogs-assisting-people-with-invisible-conditions-causing-conflict-and-some-cases-confrontation/igPnUBYHa97K07ccBGJJVJ/story.html (discussing increasing number of persons with non-apparent disabilities partnered with service animals); Mariko Yamamoto et al., *Registrations of Assistance Dogs in California for Identification Tags: 1999–2012*, 10 PLOS ONE (2015), http://europepmc.org/backend/ptpmcrender.fcgi?accid=PMC4544881&blobtype=pdf (last visited Jan. 25, 2018) (reporting on the increase in the number of service dogs registered in California, especially dogs used for psychiatric assistance). The number of individuals in the United States with disabilities is increasing. LEWIS KRAUS, *2016 Disability Statistics Annual Report*, 2 (2016), https://disabilitycompendium.org/sites/default/files/user-uploads/2016_AnnualReport.pdf (reporting that the percentage of people with disabilities in the United States rose from 11.9% in 2010 to 12.6% in 2015, and that older adults are more likely to be disabled). The percentage of people with disabilities increases with age. *Id.* However, over half of the people with disabilities are in the 18–64 age group. *Id. See also* Elizabeth A. Courtney-Long et al., *Prevalence of Disability and Disability Type Among Adults—United States, 2013*, MORBIDITY & MORTALITY WKLY. RPT., CDC (July 31, 2013), https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6429a2.htm?s_cid=mm6429a2_w (reporting 22.2% of adults reported a disability in a survey of U.S. households, a higher percentage than when the data began to be collected in 1998). Note that the U.S. population aged sixty-five years or older is expected to almost double between 2012 and 2015. JENNIFER M. ORTMAN ET AL., AN AGING NATION: THE OLDER POPULATION IN THE UNITED STATES, 1 (May, 2014), https://www.census.gov/prod/2014pubs/p25-1140.pdf (setting forth projections of the aging population in the United States).

treatment have the right to access public accommodations and entities with their service animals under the law.[3]

Pet visitation is a common program at many facilities.[4] Regularly, the media reports about a loving family member sneaking a beloved pet into the hospital to comfort an ailing relative.[5] There are heartwarming stories about a granddaughter bringing grandma's furry companion to visit—lifting grandma's spirit,[6] or a dying patient being reunited with his favorite equine friends.[7] Even if the patient does not appear to be able to communicate with a pet, a visit may be allowed.[8]

How hospitals and other facilities deal with these issues is complex, and it requires administrators to balance various legal and medical risks.[9] This Article focuses on facilities intended to provide temporary care for the purpose of medical treatment.[10] Other types of facilities, intended for

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[3] *See infra* notes 25–128 and accompanying text (discussing the Americans with Disabilities Act (ADA)). The focus of this Article is on cases decided after the revision of the ADA regulations effective in March 2011. However, cases prior to this time will be referenced to provide context for the current state of the law or highlight issues of particular interest to medical providers. *See e.g. infra* notes 73–84 and accompanying text (analyzing *Roe v. Providence Health System-Oregon*).

[4] Deborah E. Linder, *Animal-Assisted Interventions: A National Survey of Health and Safety Policies in Hospitals, Eldercare Facilities and Therapy Animal Organizations*, 45 AM. J. INFECTION CONTROL 883, 883 (2017) (stating "[m]any health care facilities . . . have introduced programs that promote interactions between residents or patients and therapy animals"); Rebecca Wallick, *Animal Assisted Therapy: Do Sick Children Benefit?*, BARK, Winter 2014, at 71 (reporting it is common to have therapy dogs in hospitals).

[5] *See, e.g.*, Erika June Smith, *Nurses Helped Sneak Dying Man's Dog Into the Hospital for Final Goodbye*, WGNTV.COM (Nov. 14, 2017), http://wgntv.com/2017/11/14/nurses-help-sneak-dying-mans-dog-into-hospital-for-final-goodbye/.

[6] *Woman Disguises Dog as Baby, Sneaks It Into Hospital to Comfort Grandma*, WGNTV.COM (June 14, 2017), http://wgntv.com/2017/06/14/woman-disguises-dog-as-baby-sneaks-it-into-hospital-to-comfort-grandma/.

[7] Kelsey Ott, *Dying Veteran's Horses Visit Him at Hospital to Say Goodbye*, WREG.COM (May 22, 2016), http://wreg.com/2016/05/22/dying-veterans-horses-visit-him-at-hospital-to-say-goodbye/.

[8] Kelli Bender, *Hospital Allows Devoted Dog to Give Heartbreaking Bedside Goodbye to Dying Owner*, PEOPLE, (Dec. 8, 2016), http://people.com/pets/watch-hospital-allows-devoted-dog-to-give-heartbreaking-bedside-goodbye-to-dying-owner/. There is even a report of a dog entering a hospital where her owner was, even though it was unclear how the dog got to the hospital. Avianne Tan, *Dog Shows Up at Hospital Where Owner Is Battling Cancer,* ABC NEWS (Feb. 12, 2015), http://abcnews.go.com/US/dog-shows-hospital-owner-battling-cancer/story?id=28916913.

[9] *See infra* notes 260–350 and accompanying text (discussing some of the risks).

[10] Note this includes both in-patient facilities and medical professionals' offices. *See infra* notes 107–125 and accompanying text (discussing application of the ADA to medical professionals' offices).

longer-term residence that may provide skilled nursing care, such as assisted living facilities, are beyond the scope of this Article.[11] This Article considers various issues that can arise either when service animals accompany an individual with a disability or when other animals are allowed in a facility.[12]

Part II of this Article sets forth the current Americans with Disabilities Act (ADA) regulations regarding service animals, considers the issue of what constitutes a "public accommodation," and analyzes cases to provide context to assist a facility in determining what it needs to do to ensure it is complying with federal law.[13] Part II also explores concerns over service animals in training and the possibility of misrepresentation of an animal's status.[14] Part III explores the other uses by entities of animals, including pet visitation programs.[15] Part IV highlights some of the risks associated with having animals on these types of premises, including the risk of injury or pathogen transmission and discusses the mitigation of these risks.[16] Part V concludes with recommendations on how healthcare facilities should address these situations.[17]

II. SERVICE ANIMALS

Titles II and III of the ADA prohibit public entities (state and local governments) and public accommodations from discriminating on the basis of a person's disability.[18] The ADA also protects employees of medical

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[11] The author has analyzed applicability of the ADA and other laws, such as the Federal Fair Housing Act, to assisted living facilities in a previous article. Rebecca J. Huss, *Re-evaluating the Role of Companion Animals in the Era of the Aging Boomer*, 47 AKRON L. REV. 497, 522–23, 525–26 (2014) [hereinafter Huss, *Aging*]. Similarly, although facilities providing hospice care may have policies allowing for animal assisted interventions, hospices will not be covered in this Article. For a discussion of pet visitation in hospice programs, see *Hospice*, THERAPY DOGS INTERNATIONAL, http://www.tdi-dog.org/OurPrograms.aspx?Page=Hospice (last visited Jan. 25, 2018). The use of animals for research or, although directly for the benefit of patients, the use of dogs to detect bacteria in a healthcare facility are also beyond the scope of this Article because these animals generally do not have direct contact with patients.

[12] *See infra* note 215 and accompanying text (limiting the scope of this Article to patients and their visitors).

[13] *See infra* notes 25–169 and accompanying text.

[14] *See infra* notes 170–210 and accompanying text.

[15] *See infra* notes 212–59 and accompanying text.

[16] *See infra* notes 260–350 and accompanying text.

[17] *See infra* notes 351–57 and accompanying text.

[18] 42 U.S.C. §§12131–65 (2018) (Title II of the ADA covering public entities); 42 U.S.C. §§ 12181–89 (2018) (Title III of the ADA covering public accommodations); *see*

facilities from discrimination on the basis of disability; however, the focus of this Part of the Article is on the rights of patients and their visitors.[19] Programs or activities receiving federal financial assistance are also required to comply with Section 504 of the Rehabilitation Act.[20] Because the Rehabilitation Act is often referenced secondarily to the ADA, this Article will not analyze its provisions separately.[21] In addition, the coverage in this Article relating to service animals is limited to cases involving ADA claims.[22] Readers should be aware that state laws protecting persons with disabilities from discrimination may be relevant as well as other claims based on a variety of theories, including, but not limited to, negligence.[23] There are regular reports of individuals with

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also 29 U.S.C. §794 (codifying § 504 of the Rehabilitation Act of 1973, and often referenced in addition to the ADA in cases alleging denial of benefits based on a person's disability as discussed *infra* note 21).

[19] *See, e.g.*, Branson v. West, No. 97C3538, 1999 WL 1186420, at *13–14 (N.D. Ill. Dec. 10, 1999) (granting preliminary injunction in favor of employee of a Veterans Administration hospital so she could be accompanied by her service animal at the hospital); United States v. Dental Dreams, LLC, No. Civ. 13-1141 HJ/KBM, 2016 WL 9777254, at *1, *4 (D. N.M. Sep. 16, 2016) (discussing complicated retaliation and discrimination case, where, among other sources of conflict, the dentist employee was bringing his service dog to the dental practice); *see also infra* note 27 (discussing the lack of a service animal definition in Title I of the ADA). These entities are required to make modifications in other policies to ensure access to healthcare for individuals with disabilities. *See, e.g.*, Anne Ruff & Adriana Fortune, *Emerging Duties Under Unsettled Disability Law: Web Access and Service Animals in Health Care*, 11 J. HEALTH & LIFE SCI. L. 80 (2017) (analyzing the obligation of providers regarding web accessibility issues along with a limited discussion of issues relating to service animals).

[20] 29 U.S.C. § 794 (2018).

[21] *See, e.g.*, Campen v. Portland Adventist Med. Ctr., Case No. 3:16-cv-00792-YY, 2016 WL 5853736 (D. Or. Sept. 2, 2016), *recommendations adopted*, No. 3:16-cv-00792-YY, 2016 WL 5858670 at *1 (D. Or. Oct. 5, 2016) (rejecting dismissal of Rehabilitation Act claim on the same grounds it rejected dismissal of ADA claims and allowing discovery to determine whether the Rehabilitation Act applies to a hospital receiving Medicare and Medicaid funds); Hurley v. Loma Linda Univ. Med. Ctr., No. CV12-5688 DSF (OPx), 2014 WL 580202, *9–10 (C.D. Cal. Feb. 12, 2014) (finding because plaintiff was "subjected to disability discrimination under the ADA, she was also subjected to discrimination under Section 504" of the Rehabilitation Act); Davis v. Seven Oaks Med. Group, No. 1:13=4-CV-00669-LJO-JLT, 2014 WL 3966295, at *3–5 (E.D. Cal. Aug. 8, 2014) (denying motion to dismiss for claims based on the ADA and Rehabilitation Act). *But cf.* Berardelli v. Allied Servs. Inst. of Rehab. Med., No. 3:14-0691, 2017 U.S. Dist. LEXIS 11334 (M.D. PA. Feb. 3, 2017) (providing an example of a case where claims were based on the ADA and Rehabilitation Act with only the Rehabilitation Act claim surviving to the trial verdict stage in a case against a private school).

[22] *See infra* note 23 (discussing state claims cases).

[23] *E.g.*, Albert v. Solimon, 721 N.E.2d 17 (N.Y. Ct. App. 1999) (upholding decision that

disabilities partnered with service animals being denied access to entities covered by the ADA, both in traditional media sources as well as social media platforms.[24]

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the examination room in the office of an orthopedic surgeon would not be a "public facility" within the meaning of the New York Civil Rights Law). The lower court's opinion dismissing the complaint distinguished between the examination room and the medical office and cited to a 1986 case that held that an individual with a visual impairment was not allowed to bring his service dog into a hospital delivery room under the same New York provision. *Id.* at 142 (citing Perino v. St. Vincent's Med. Ctr. of Staten Island, 502 N.Y.S.2d 921, 922 (N.Y. Sup. Ct. 1986). The *Perino* court focused on the places the general public was normally invited or permitted. 502 N.Y.S.2d at 922. The *Perino* court referenced that hospitals have certain closed units and hospitals "may set appropriate restrictions governing entry into these units." *Id.* The majority opinion also raised concerns over the physician's safety, finding the "presence of a dog presents a potential and unacceptable danger to the physician and any nursing staff in attendance." *Id.* at 143. The dissenting opinion in *Albert* cited to a 1996 case where a dental office was found to be a place of public accommodation. 252 A.D.2d. at 147 (citing to In the Matter of Cahill v. Rosa, 674 N.E.2d 274, at *21–23 (Ct. App. N.Y. 1996) (holding dental offices were places of public accommodation). This narrow view of what constitutes "public facilities" under New York law was upheld in *Nicolas v. City of Binghamton*, 2012 WL 3261409, *21 (N.D. N.Y.), which cites the *Albert* and *Perino* cases in holding "[n]either an emergency vehicle nor a hospital are public places" in a case where a woman was denied her request to bring her service animal with her to a hospital after an altercation with the police. The *Nicolas* case also illustrates that state laws use a different definition of service animals than what is used in the ADA. *Id.* (discussing, because the service dog at issue in the case was not professionally trained as required by the state law, the claim could be dismissed). Although the court acknowledged the dog qualified as a service dog under the ADA, that claim was dismissed because of insufficient evidence that the plaintiff was not reasonably accommodated and did not show she suffered any consequences by such failure to provide a reasonable accommodation. *Id.* at *14. Ms. Nicolas' remaining ADA claims were dismissed as well. Nicolas v. City of Binghamton, 2013 WL 4736373, *3 (N.D. N.Y. 2013) (dismissing ADA claims against individual defendants because "it is well settled that individuals may not be held personally liable under the ADA"). *See also* Gutman v. Quest Diagnostics Clinical Labs., Inc., 707 F. Supp. 2d 1327 (S.D. Fla. 2010) (illustrating case based on Florida common law tort claims, including negligent supervision and training, arising from a woman not being allowed to bring her service dog into a laboratory where she was scheduled to have her blood drawn). In the *Gutman* case, the underlying injury was an alleged violation of the ADA and thus not a recognized common law tort, so the court granted the motion to dismiss the claims. *Id.* at 1332. *See also* Lyons v. Rether, 239 S.E.2d 103, 104–06 (Va. 1977) (analyzing the applicability of Virginia's White Cane Act in connection with allegations that a woman with a guide dog was told to remove the dog from the waiting room of a physician's office).

[24] *E.g.*, Holly V. Hays & Vic Ryckaert, *Accusations of Discrimination Highlight Confusion Over Service Dogs and the Law*, INDYSTAR (Oct. 11, 2017), https://www.indystar.com/story/news/2017/10/11/accusations-discrimination-highlight-confusion-over-service-dogs-and-law/753655001/ (reporting on incident where an individual was asked to leave a public accommodation by the police). This incident was recorded and posted on Facebook where it was shared over 3,000 times and had over 5,000 comments. *Id.*

A. Americans with Disabilities Act

In general, entities covered by Title II and Title III of the ADA are required to make "reasonable modifications" in policies or procedures, including permitting the use of a service animal, if such modifications are required to "afford goods, services, facilities, privileges, advantages or accommodations to individuals with disabilities."[25] An entity is not required to make a modification if it would "fundamentally alter" the nature of the goods, services, etc.[26]

The ADA regulations applicable to public entities and public accommodations that became effective in March 2011 include a definition of "service animal."[27] The regulations define service animal as "any dog that is individually trained to do work or perform tasks for the benefit of an

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[25] 28 C.F.R. § 36.302(a).

[26] 28 C.F.R. § 35.130(b)(7); *see* 28 C.F.R. § 36.102(a).

[27] 28 C.F.R. § 35.104; 28 C.F.R. § 36.104. The Department of Justice (DOJ) proposed new regulations applying to Title II and Title III of the ADA in June 2008. *The Department of Justice Proposes New Rules to Implement the Americans with Disabilities Act (ADA)*, DEP'T OF JUSTICE, https://www.justice.gov/archive/opa/pr/2008/June/08-crt-498.html (June 4, 2008). The DOJ considered whether to limit the species of service animals, and ultimately dealt with the issue by using dogs in the definition but allowing for miniature horses. 28 C.F.R. § 35.136(i); 28 C.F.R. § 36.302(c)(9). *See generally* Rebecca J. Huss, *Why Context Matters: Defining Service Animals Under Federal Law*, 37 PEPP. L. REV. 1163, 1174–89 (2010) [hereinafter Huss, *Context*] (discussing DOJ rulemaking process revising the ADA regulations). The specific definition of service animal is in contrast to Title I of the ADA, which does not include a similar definition. *Accommodation and Compliance Series: Service Animals in the Workplace*, JOB ACCOMMODATION NETWORK, https://askjan.org/media/servanim.html (last visited Jan. 25, 2018) (discussing lack of specific definition or guidelines in Article I and recommending how employers should approach the issue). Religious organizations or entities controlled by religious organizations are generally excluded from the coverage of Title III of the ADA. 42 U.S.C. § 12187 (2012); 28 C.F.R. § 36.102(e) (excluding religious entities from Title III). Thus, a hospital or medical clinic controlled by a religious organization would not be covered under the ADA. 42 U.S.C. § 12187; 28 C.F.R. § 36.102(e). The test to determine control is a factual one. *See* Reed v. Columbia St. Mary's Hosp., 236 F.Supp.3d 1091, 1101–04 (E.D. Wis. 2017) (discussing the complicated organizational structure of the hospital and concluding the entity fell within the exemption under Title III of the ADA). Note that if the organization is receiving federal funding it would be subject to Section 504 of the Rehabilitation Act. John A. Liekweg, *The Americans with Disabilities Act, Section 504, and Church-Related Institutions*, 38 CATH. LAW. 87, 95–96 (1998). In addition, a state law may provide more expansive coverage of religious entities compared with the ADA. Stevens v. Optimum Health Inst. San Diego, 810 F.Supp.2d 1074, 1081, 1097–98, 1100 (determining the ADA did not preempt California's more expansive Unruh civil rights law that could apply to a holistic health program of a religious organization that allegedly denied a visually-impaired individual access to the program with or without her guide dog).

individual with a disability, including a physical, sensory, psychiatric, intellectual, or other mental disability."[28] In contrast to activities of "therapy" animals discussed below,[29] the definition of service animal specifies that "the provision of emotional support, well-being, comfort, or companionship do not constitute work or tasks for the purposes of this definition."[30] Entities may also be required to make reasonable accommodations to permit the use of a miniature horse as a service animal under certain circumstances.[31]

Entities are not allowed to require documentation or inquire about the "nature or extent of [a] person's disability," but may only "ask if the animal is required because of a disability and what work or task the animal has been trained to perform."[32] Even those two inquiries generally should not

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[28] 28 C.F.R. § 35.104; 28 C.F.R. § 36.104. The definition continues:

> Other species of animals, whether wild or domestic, trained or untrained, are not service animals for the purposes of this definition. The work or tasks performed by a service animal must be directly related to the handler's disability. Examples of work or tasks include, but are not limited to, assisting individuals who are blind or have low vision with navigation and other tasks, alerting individuals who are deaf or hard of hearing to the presence of people or sounds, providing non-violent protection or rescue work, pulling a wheelchair, assisting an individual during a seizure, alerting individuals to the presence of allergens, retrieving items such as medicine or the telephone, providing physical support and assistance with balance and stability to individuals with mobility disabilities, and helping persons with psychiatric and neurological disabilities by preventing or interrupting impulsive or destructive behaviors.

28 C.F.R. § 35.104; 28 C.F.R. § 36.104. This limitation on the species of animals can be relevant. Capell v. N.C. Div. of Vocational Rehab. Serv., No. 3:10-CV-355-RJC-DCK, 2011 WL 3502270, at *2, *11–12 (W.D. N.C. Apr. 1, 2011) (recommending a motion to dismiss be granted when a plaintiff claimed that a hospital violated the ADA when it denied permission for him to keep his purported sugar glider service animals with him in his room after scheduled surgery). The judge in the *Capell* case noted the recent narrowing of the ADA definition of service animals in her assessment that the plaintiff failed "to state a plausible claim of relief." *Id.* at *11. Even before the species restriction was implemented in 2011, a hospital was able to support its decision that a monkey purportedly being used as a service animal could be excluded from the facility because of its individualized direct threat analysis, which found a high risk of zoonotic disease transmission, and its concerns about the risks of primates having unpredictable violent behavior. Rose v. Springfield-Greene Cty. Health Dep't, 668 F.Supp.2d 1206, 1216–17 (W.D. Mo. 2009).

[29] *See infra* notes 212–32 and accompanying text (discussing the activities of therapy animals).

[30] 28 C.F.R. § 35.104; 28 C.F.R. § 36.104.

[31] 28 C.F.R. § 35.136(i); *see* 28 C.F.R. § 36.302(c)(9) (setting out assessment factors to determine whether it is necessary to accommodate an individual partnered with a miniature horse as a service animal).

[32] 28 C.F.R. § 35.136(f); 28 C.F.R. § 36.302(c)(6); *see infra* notes 195–98 and

be made by an entity "when it is readily apparent that an animal is trained to do work or perform tasks for an individual with a disability" such as "providing assistance with stability or balance to an individual with an observable mobility disability."[33]

The handler of the service animal (person with the disability) is responsible for controlling the service animal.[34] Although there are organizations that promote certain "public access" standards, the ADA regulations do not articulate any specific positive standards for behavior.[35] An entity may exclude a service animal from the premises if: "(1) the animal is out of control and the animal's handler does not take effective action to control it; or (2) the animal is not housebroken."[36] The Department of Justice's (DOJ's) guidance to the ADA regulations requires entities to make an individualized determination about whether an animal may be excluded, and such analysis cannot be based on fear of animals generally, or generalizations about animals or a specific breed.[37] In

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accompanying text (discussing lack of certification or training requirements for service animals and decision by DOJ not to include such a requirement in the ADA regulations).

[33] 28 C.F.R. § 35.136(f); 28 C.F.R. § 36.302(c)(6).

[34] 28 C.F.R. § 35.136(d)-(e); 28 C.F.R. § 36.302(c)(4)-(5). The handler of the service animal must either be tethered to or otherwise be able to control the service animal, such as through voice control or other signals. 28 C.F.R. § 35.136(b); 28 C.F.R. § 36.302(c)(2).

[35] *See Assistance Dogs in Public*, ASSISTANCE DOGS INTERNATIONAL, https://www.assistancedogsinternational.org/standards/assistance-dogs/assistance-dogs-in-public/ (last visited Jan. 25, 2018) (setting forth guidelines for assistance dogs working in public places).

[36] 28 C.F.R. § 35.136(b); 28 C.F.R. § 36.302(c)(2). An entity that has properly excluded a service animal must still provide the individual partnered with the service animal an opportunity to obtain the services. 28 C.F.R. § 35.136(c); 28 C.F.R. § 36.302(c)(3).

[37] Nondiscrimination on the Basis of Disability in State and Local Government Services, 75 Fed. Reg. 56,164, 56,191-94 (Sept. 15, 2010) [hereinafter Title II Regulation Guidance]. *See* Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities, 75 Fed. Reg. 56,236, 56,268 (Sept. 15, 2010) [hereinafter Title III Regulation Guidance] (implementing the final regulations for Title II and Title III of the ADA and providing guidance on changes in the regulations).

> The Department does not believe that it is either appropriate or consistent with the ADA to defer to local laws that prohibit certain breeds of dogs based on local concerns that these breeds may have a history of unprovoked aggression or attacks[.] [E]ntities have the ability to determine, on a case-by-case basis, whether a particular service animal can be excluded based on that particular animal's actual behavior or history—not based on fears or generalizations about how an animal or breed might behave. This ability to exclude an animal whose behavior or history evidences a direct threat is sufficient to protect health and safety.

Title II Regulation Guidance, *supra*, note 37; Title III Regulation Guidance, *supra*, note 37. *See also Frequently Asked Questions About Service Animals and the ADA*, DEP'T OF

addition, as discussed below, the public entity or public accommodation is not required to care for or supervise the service animal.[38]

B. What Constitutes a Public Accommodation?

Entities are required to permit individuals with service animals in "all areas of a place of public accommodations where members of the public, program participants, clients, customers, patrons, or invitees, as relevant, are allowed to go."[39]

1. Hospitals

Hospitals are listed as one type of public accommodation under the ADA regulations.[40] The DOJ specifically addresses the rights of patients in its

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JUSTICE, OFFICE OF CIVIL RIGHTS Q22–Q25 (July 20, 2015), https://www.ada.gov/regs2010/service_animal_qa.pdf [hereinafter DOJ FAQ]; Rebecca J. Huss, *A Conundrum for Animal Activists: Can or Should the Current Legal Classification of Certain Animals Be Utilized to Improve the Lives of All Animals? The Intersection of Federal Disability Laws and Breed Discriminatory Legislation*, 2015 MICH. ST. L. REV. 1561, 1574–80 (2015) [hereinafter Huss, *Conundrum*] (analyzing DOJ guidance and case law regarding breed discriminatory legislation, policies, and the ADA). An example of a pre-2011 case discussing the analysis of whether an animal posed a direct threat and could be excluded is *Day v. Sumner Reg'l Health Sys, Inc.* No. 3:07-0595, 2007 WL 4570810 (M.D. Tenn. Dec. 26, 2007). In *Day*, a woman was not allowed to bring her service dog into a treatment room because the facility alleged the dog was "extremely unclean." *Id.* In its analysis rejecting the motion to dismiss by the entity, the court found it could not "hold, as a matter of law that allowing Day's service animal into the treatment area posed an actual risk or direct threat to health or safety," given the issue needed to be further developed. *Id.* at *3. The *Day* court distinguished the case from the *Pool* case, because the facts of that case were developed in the record. *Id.* at *3. *See* Pool v. Riverside Health Servs., Inc., No. 94-1430-PFK, 1995 WL 519129 (D. Kan. Aug. 25, 1995) (granting hospital's motion for summary judgment in case where individual with service dog was denied the right of access to emergency department with her service dog).

[38] 28 C.F.R. § 35.136(e); 28 C.F.R. § 36.302(c)(5).

[39] 28 C.F.R. § 36.302(c)(7).

[40] 28 C.F.R. § 36.104(1)(B)(6) (defining public accommodations under Title III of the ADA). Hospitals and other human service programs receiving federal financial assistance may be subject to the Rehabilitation Act's Section 504 provisions protecting qualified individuals with disabilities from discrimination if the entity is considered a recipient of such funds. *Fact Sheet: Your Rights Under Section 504 of the Rehabilitation Act*, U.S. DEP'T OF HEALTH AND HUMAN SERVS., https://www.hhs.gov/sites/default/files/ocr/civilrights/resources/factsheets/504.pdf (last visited Jan. 25, 2018); *see also* Dunn v. El Dorado Cty. Cmty. Health Ctr., No. 2:07-cv-02249-GEB-KJM, 2008 WL 687253 (E.D. Cal. Mar. 10, 2008). In *Dunn*, an individual, who was accompanied by his service dog, was denied access to a hospital for a medical

guidance on service animals.[41] It states "[s]ervice animals must be allowed in patient rooms and anywhere else in the hospital that the public and patients are allowed to go. They cannot be excluded on the grounds that staff can provide the same services."[42]

Because entities are not required to supervise service animals, patients can be required to arrange for their animals' care.[43] DOJ guidance references the patient making arrangements, "as it is always preferable that the service animal and its handler not be separated."[44] Hospitals must provide the opportunity for a patient to make such arrangements; however, if a patient cannot care for the dog or arrange for another person to care for the dog, "the hospital may place the dog in a boarding facility until the patient is released, or make other appropriate arrangements[.]"[45]

Many hospitals handle issues with service animals in a way that complies with the law and are patient-centered.[46] However, there are reports of medical facilities that do not appear to handle inquiries about service animals appropriately.[47] For example, in *Campen v. Portland Adventist*

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appointment and later required emergency medical attention at another hospital for an anxiety attack he attributed to the encounter. *Id.* at *1. The court denied the defendant's motion to dismiss the plaintiff's intentional infliction of emotional distress claim, referencing the special relationship the defendants had as the plaintiff's medical provider, and concluding that they "knew or had reason to know that he relied on his service dog for assistance and that he was susceptible to mental distress and anxiety." *Id.* at *2.

[41] DOJ FAQ, *supra* note 37, at QQ14–16. A service animal should be allowed to ride in an ambulance with its handler unless it would "interfere with the emergency medical staff's ability to treat the patient." *Id.* at Q16. If the service animal is excluded from the ambulance the "staff should make other arrangements to have the dog transported to the hospital." *Id.*

[42] *Id.* at Q14.

[43] 28 C.F.R. § 35.136(e); 28 C.F.R. § 36.302(c)(5). A third party could provide this care. *See* Susan L. Duncan, *APIC State of the Art Report: The Implications of Service Animals in Health Care Settings*, 28 AJIC AM. J. INFECTION CONTROL 170, 176–77 (2000) (discussing the types of services that might be provided by a third party, such as toileting and exercising a service animal).

[44] DOJ FAQ, *supra* note 37, at Q15.

[45] *Id.*

[46] Shannon Tew & Brad M. Taicher, *A Dog Is a Doctor's Best Friend: The Use of a Service Dog as a Perioperative Assistant*, 2016 CASE REPORTS IN PEDIATRICS 1 (2016) (providing a case review of a six-year-old patient whose service animal alerted to mast cell mediator release and the inclusion of the dog in the procedure suite); *Why a Dog Got to Stay in the Hospital*, NOVANT HEALTH (Sept. 26, 2017), https://www.novanthealth.org/home/about-us/newsroom/healthy-headlines/articleid/532/sometimes-a-service-animal-needs-to-be-at-the-side-of-a-patient..aspx?MobileWidthCheck=y (reporting on the positive experience of a veteran whose service dog was accommodated during a recent hospitalization).

[47] Andy Alcock, *Service Animal Thrown Out of Hospital*, WCTV.TV (Jan. 28, 2014,

Medical Center, a veteran with a service dog trained to perform multiple tasks was not questioned when he entered into a hospital to retrieve medical records.[48] However, when Mr. Campen was leaving the facility he was confronted by security guards and an administrator who questioned the status of Mr. Campen's dog as a service animal.[49] Mr. Campen was required to seek medical attention after sustaining a sprained wrist which occurred when one of the security guards forced him to leave.[50] The hospital in the *Campen* case was unsuccessful in dismissing the ADA claim, based on the theory that Mr. Campen was not denied access "because he was on his way out" of the hospital at the time of the incident.[51] The *Campen* court found that "he was no less entitled to completely exit the hospital without confrontation than he was to enter it in the first place."[52]

Even if a physical altercation does not occur, a hospital employee's repeated inquiries for documentation can be the basis for a finding of a violation of the ADA.[53] In the case of *Hurley v. Loma Linda University*

7:42 PM), http://www.wctv.tv/home/headlines/Service-Animal-Thrown-Out-Of-Hospital-242494921.html (last visited Jan. 25, 2018) (reporting on an individual with a service animal, who was visiting a friend, who was told by hospital personnel that her dog posed a security risk). The dog at question in this incident was described as a pit bull. *Id.* The Florida State Attorney at the time declined to prosecute stating "I don't see how having a pit bull running loose with you qualifies as a service dog" (quoting Willie Meggs). *Id.* As discussed above, the ADA regulations require a case-by-case determination over whether an individual service dog poses a direct threat before it can be excluded, regardless of the dog's breed. *Supra* note 36 and accompanying text (setting forth ADA language). *See also* Marisa Schultz, *Hospital Turns Away 9/11 Volunteer for Bringing Service Dog*, N.Y. POST (Sept. 23, 2016, 6:17 AM), https://nypost.com/2016/09/23/hospital-turns-away-911-volunteer-for-bringing-service-dog/ (last visited Jan. 25, 2018) (reporting on an individual with a service dog going to a medical appointment who was denied access to a facility contained in the Columbia University Medical Center until New York City Police officers intervened). Sometimes pro se complaints are filed referencing possible conflicts, including access issues relating to service animals but which include unclear facts. *E.g.*, Hansen v. Marin Gen. Hosp., No. 17-CV-03473-WHO, 2017 WL 6539698 (N.D. Cal. Dec. 21, 2017) (granting defendants' motion to dismiss pro se complaint because of a failure to state a claim).

[48] No. 3:16-cv-00792-YY, 2016 WL 5853736, *1–2 (D. Ore. Sept. 2, 2016). Among other services, Mr. Campen's service dog is trained to perform tasks relating to his post traumatic stress disorder, hearing impairment, and balance issues. *Id.*

[49] *Id.* at *2. According to the complaint, one of the security guards referred to the dog as a companion pet, and the administrator yelled, "Get the dog out of here." *Id.*

[50] *Id.* at *2 (citing to the complaint). At this stage of the proceedings, the court assumes the truth of the factual allegations. *Id.* at *1.

[51] *Id.* at *3 (viewing the issue in Campen's favor).

[52] *Id.* at *4. The hospital was successful in having a claim for injunctive relief for disabled persons generally dismissed. *Id.* at *5.

[53] Hurley v. Loma Linda Univ. Med. Ctr., No. CV12-5688DSF (OPx), 2014 WL

Medical Center, a hospital security officer was described as someone with "experience with people falsely claiming to have service animals, and . . . [b]ased on his [prior] experience as a deputy sheriff, . . . believed he could ask individuals to provide documentation regarding service animals."[54] The circumstances surrounding Ms. Hurley's visit to the hospital (to visit a family member) were complicated by family drama, and the court described Ms. Hurley's reaction to the argument with the security guard as "totally inappropriate and certainly constituted grounds for Hurley to be asked to leave—or be removed—from the Hospital."[55]

Notwithstanding Ms. Hurley's inappropriate response to the inquiries, the court found the repeated request for documentation violated the ADA's prohibition on requiring documentation and limits on the inquiries that can be made to persons accompanied by service animals.[56] The court rejected the argument that the security guard "did not *require* documentation, but merely asked for it" because of (a) the repeated requests, (b) the security guard's admission he believed he could require documentation, and (c) the specific limitation of inquiries language in the ADA.[57] The court also rejected the argument made by the hospital that the ADA's limitation on inquiries was inapplicable because "the dog's status as a service animal was not readily apparent."[58]

However, depending on the circumstances, a short delay in accessing a facility may not be sufficient to support a claim under the ADA.[59] In the *O'Connor v. Scottsdale Healthcare Corp.* case, Ms. O'Connor, who was accompanied by her service dog, was visiting a patient in the hospital and was stopped by a security guard who asked if she had registered her dog.[60]

580202, at *8 (C.D. Cal. Feb., 12, 2014).

[54] *Id.* at *2. The security guard also informed Ms. Hurley he would "have her arrested for disturbing the peace and trespassing . . . and if she were arrested, her dog would likely be 'put in the pound.'" *Id.* at *4.

[55] *Id.* at *3 (reporting Ms. Hurley used profanity, became hysterical, and was "practically screaming").

[56] *Id.* at *8 (citing 28 C.F.R. § 36.302(c)(1)).

[57] *Id.* (italics in original).

[58] *Id.* The *Hurley* court stated "the provision plainly prohibits all inquiries other than the two permitted inquiries, while also limiting the permitted inquiries to situations in which it is not readily apparent that the animal is a service animal." *Id.* Although the court found a violation of the ADA, the Rehabilitation Act, and two California laws, it rejected several other claims, including one based on negligent training grounded on the hospital's failure to train its security officers in the "new and relatively obscure provision" interpreting the ADA enacted only approximately nine months prior to the incident. *Id.* at *12–13.

[59] O'Connor v. Scottsdale Healthcare Corp., 871 F. Supp. 2d 900 (D. Ariz. 2012).

[60] *Id.* at 900–01. The court assumed the dog was a service animal for purposes of the order. *Id.* at 900.

Ms. O'Connor informed the security guard that she had not and would not register her service dog but did tell the security guard the dog's vaccinations were current in response to his inquiry about the dog's grooming and vaccinations.[61] Ms. O'Connor and the security guard continued their conversation, and ultimately the guard escorted Ms. O'Connor outside the hospital, asking her to wait outside the security office.[62] The initial security guard returned with an individual identifying himself as the head of security who asked Ms. O'Connor "if she was disabled and if her dog was a service dog."[63] After Ms. O'Connor answered "yes" to both of these questions, the head of security immediately allowed Ms. O'Connor to enter the hospital without requiring Ms. O'Connor to register her service dog.[64] Reportedly, Ms. O'Connor was delayed approximately forty-minutes before gaining access to the hospital.[65] Ms. O'Connor was not stopped from entering the hospital or required to register her service dog on subsequent visits to the facility.[66]

The *O'Connor* court dismissed Ms. O'Connor's ADA claim for lack of standing.[67] The *O'Connor* court found the minimal delay that Ms. O'Connor experienced "did not constitute constructive denial of a public accommodation."[68] Instead, the court found that although Ms. O'Connor "obviously found her interaction with the security guard very unpleasant, the short delay caused by the encounter was too minor an injury to confer standing under the ADA."[69] The court also held Ms. O'Connor did not have standing to pursue injunctive relief because "it is the reality of the threat of repeated injury that is relevant to standing, not [Ms. O'Connor's] subjective apprehensions."[70]

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[61] *Id.* at 901.

[62] *Id.* Ms. O'Connor informed the security guard she was an attorney, read from a publication published by the DOJ, and also asked to speak with a member of the medical facility's legal department. *Id.*

[63] *Id.*

[64] *Id.*

[65] O'Connor v. Scottsdale Healthcare Corp., No. CV11-2264-PHX-JAT, 2012 WL 2106365, at *1 (D. Ariz. June 11, 2012) (denying relief requested by the plaintiff but granting plaintiff's motion for reconsideration to the extent of correcting a factual assumption in the record).

[66] *O'Connor*, 871 F. Supp. 2d at 901. Ms. O'Connor claims she "felt afraid a security guard would confront her again." *Id.*

[67] *Id.* at 902.

[68] *Id.* at 903. The court acknowledged "that some prolonged waits for accommodations might amount to constructive denial of accommodation." *Id.*

[69] *Id.* at 904.

[70] *Id.* In order to have standing to pursue injunctive relief a plaintiff must show a "real and immediate threat of repeated injury" (citing Chapman v. Pier 1 Imports (U.S.) Inc., 631

As discussed above, a hospital may rely on the ADA regulation language to exclude an animal if it is able to show an individual service animal is a direct threat.[71] A 2009 case illustrates facts that would likely support exclusion of a service animal.[72] In *Roe v. Providence Health System-Oregon*, the court found in favor of a hospital that was sued due to allegedly discriminatory treatment under the ADA.[73]

Ms. Roe is a person with a disability and uses crutches because of a severe neurological illness.[74] Ms. Roe's service dog, Cretia, a St. Bernard, accompanied Ms. Roe to the hospital numerous times for multiple-day stays and remained in Ms. Roe's room for the full duration of her hospitalizations.[75] There were multiple concerns relating to Cretia's presence in the hospital.[76] The first was a "putrid odor" that would permeate the entire floor.[77] The odor generated complaints and possibly indicated Cretia suffered from an infection.[78] Staff developed allergic reactions to Cretia.[79] In response to the odor and allergic reactions, the hospital tried to keep the room's door shut and used a HEPA filter.[80] In

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F.3d 939, 946 (9th Cir. 2011)). The *O'Connor* court found that Ms. O'Connor's "unsubstantiated, subjective fear that she might, at some point in the future, have another problem . . . does not confer standing to pursue injunctive relief." 871 F. Supp. 2d at 904. Note that the remedy under Title III of the ADA is injunctive relief; monetary damages are not available. Vale v. Northwell Health, 17-CV-711 (PKC)(LB), 2018 WL 11155345, at *1-3 (E.D. N.Y. Feb. 26, 2018) (dismissing claim for damages under Title III but allowing for the refiling of an amended complaint setting forth grounds for injunctive relief in case alleging a hospital did not permit a patient plaintiff from walking his service dog and requiring the plaintiff to keep the dog isolated in the patient's room).

[71] *Supra* note 36 and accompanying text (setting forth ADA language).

[72] Roe v. Providence Health System-Oregon, 655 F. Supp. 2d 1164, 1166-67 (D. Ore. 2009) (setting forth facts); Roe v. Providence Health System-Oregon, Civil No. 06-1680-KI, 2009 WL 4067323 at *2 (D. Ore. Nov. 23, 2009) (declining to award attorney fees to hospital).

[73] *Roe*, 655 F. Supp 2d at 1169.

[74] *Id.* at 1166.

[75] *Id.* Ms. Roe has had more than 100 admissions to the hospital since 1996 with Cretia accompanying her twenty-nine times since 2004. *Id.* There was no question that Cretia performed tasks for Ms. Roe. *Id.*

[76] *Id.* at 1166–68.

[77] *Id.* at 1166. Cretia was groomed and bathed once a week; however, the court provided several examples of evidence the odor was extremely offensive, including patients being transferred away from Ms. Roe's room and a twenty-four-hour period being necessary to clean and air out Ms. Roe's hospital room after she left. *Id.*

[78] *Id.* at 1167. Veterinary records confirmed Cretia had infections during the times she was at the hospital with Ms. Roe. *Id.*

[79] *Id.* at 1166–67.

[80] *Id.* Ms. Roe "resisted these efforts, complaining of claustrophobia and the noise from

addition, Cretia's size meant the dog would block staff's access to Ms. Roe, and "[a]t least once, Cretia growled at a nurse who was attempting to rouse Roe."[81]

The *Roe* court first dismissed with prejudice Ms. Roe's public accommodation claim, finding that the hospital attempted to accommodate Ms. Roe.[82] The court then, referring to the many suggestions of compromises made by the hospital, concluded the "defendants proved that the direct threat caused by Cretia's presence could not be eliminated by a modification of policies, practices, or procedures."[83] The court cited to Ms. Roe's refusal to cooperate in enjoining the Roes from bringing any animal, including any service animal, into the facilities owned by the hospital group.[84]

Facilities devoted to psychiatric care can have some unique challenges regarding the accommodation of individuals with their service animals.[85] Although the patients in these facilities may be able to physically care for their animals, because of the structure of the programs there may be other issues that administrators need to consider in order to accommodate handlers of service animals.[86]

As with other medical facilities, some of these entities do not appear to have developed their policies in a way that provides for access for individuals paired with service dogs as required by the ADA.[87] *Tamara v.*

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the filter," although, prior to bringing Cretia, she "routinely kept her door closed." *Id.* at 1167–68.

[81] *Id.* at 1167. The hospital staff was concerned Cretia would relieve herself in the room and at times would take Cretia outside to relieve herself. *Id. See* notes 43–45 and accompanying text (discussing it is not the obligation of the hospital or its staff to care for or supervise a service animal).

[82] *Id.* at 1167–68 (referring to the hospital's concerns as legitimate).

[83] *Id.* at 1168.

[84] *Id.* at 1169. The court noted there was no evidence of issues with other individuals bringing their service animals to this facility. *Id.* at 1167.

[85] *See, e.g.*, Brian Rothberg & Emily Collins, *A Service Dog in Group*, 65 INT'L J. GROUP PSYCHOTHERAPY 307, 311 (2015) (reporting on the inclusion of a patient with a service dog who exhibited behavioral issues in a group setting and describing some of the issues that may arise in such circumstances).

[86] *Supra* note 43 and accompanying text (discussing responsibility of the handler to care for and supervise his or her service animal); Kea Grace, *Psychiatric Hospitalizations and Service Dogs*, ANYTHINGPAWSABLE, https://www.anythingpawsable.com/inpatient-psychiatric-service-dog-admission/ (last visited Jan. 25, 2018) (discussing practical considerations involved with having a service animal in a locked unit, including feeding, toileting, and exercise); *infra* notes 88–104 (discussing case involving a locked ward).

[87] *See, e.g.*, Curley v. Lifestream Behavioral Ctr., Inc., No. 5:15-CV-183-OC-30RPL, 2015 WL 4664452 (M.D. Fla. Aug. 6, 2015) (referring to the Lifestream facility being

El Camino Hospital illustrates issues that may arise if an individual partnered with a service animal requires care in a behavioral treatment facility.[88] In this case, the plaintiff, Ms. Tamara, moved for a preliminary injunction requiring the hospital, including its locked psychiatric ward, "to admit service dogs unless it has substantive evidence based on an individualized assessment that the dog is a direct threat to the health and safety of the operation, which cannot be mitigated by reasonable accommodations."[89] Ms. Tamara has physical disabilities and her service dog, Inglis, assists with mobility and other independence issues.[90] Ms. Tamara is also on psychiatric medication which causes physical side effects, and in December 2011 was admitted to El Camino Hospital to rebalance her medication.[91] When Ms. Tamara was admitted in December 2011 she was informed by a hospital employee that Inglis would not be allowed to accompany her to the psychiatric ward, "allegedly stating that dogs have not been allowed since someone was bitten."[92] Although Ms. Tamara and her treating physician attempted to resolve the issue in December 2011, Inglis was not allowed to be with Ms. Tamara during the her stay.[93] At the time of this case, the hospital's policy provided service animals are allowed:

> in any area of the Hospital that is unrestricted to inpatients, outpatients or visitors such as lobbies, cafeterias and patient rooms provided that the service animal does not pose a Direct Threat to the health and safety of others and

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contacted to inquire whether a service dog would be permitted and being informed that service dogs were not permitted). The plaintiff in this case alleged that being separated from his service dog exacerbated his preexisting impairments. *Id.* at *2. In the order ruling on a motion to dismiss brought by the defendant, the court stated the "refusal to allow Plaintiff's service animal into the psychiatric facility may be a violation of the ADA." *Id.* at *4. The plaintiff prevailed in this case with a monetary judgment of $2,500 against the center. Order, Curley v. Lifestream Behavioral Center, Case No. 5:15-CV-183-OC-30PRL, 2015 WL 4664452 (M.D. Fla. Nov. 10, 2015).

[88] *See* Tamara v. El Camino Hosp., 964 F. Supp. 2d 1077 at 1077 (N.D. Cal. 2013).

[89] *Id.* at 1080.

[90] *Id.*

[91] *Id.* Ms. Tamara "exclusively" uses El Camino Hospital's services and had a history of hospitalization at the facility. *Id.*

[92] *Id.*

[93] *Id.* at 1080–81. This was in spite of Ms. Tamara's physician writing an order allowing for Inglis to be reunited with her and Ms. Tamara having Inglis tested for the MRSA virus as required by the hospital's Infection Control department. *Id.* Allegedly the manager of the ward told Ms. Tamara that she "should transfer to another hospital because Inglis would not be allowed in the hospital under any circumstances." *Id.* at 1081.

> would not require a fundamental alteration in the Hospital's policies and procedures.[94]

However, members of the public and service animals were not allowed in "restricted access areas" including the psychiatric wards where Ms. Tamara might be admitted.[95]

The *Tamara* court reiterated that there was no question of Ms. Tamara's status as a person with a disability covered by the ADA or the hospital's status as a place of public accommodation.[96] However, there is an affirmative defense that the requested accommodation would "fundamentally alter the nature of the facility or service offered."[97] The court, citing to the Centers for Disease Control and Prevention Guidelines, recognized that it would be a fundamental alteration of the nature of the facility if service animals would be allowed in areas of limited access employing general measures of infection-control "such as those requiring strict hygiene rules and protective barriers like gloves, gowns, and masks."[98] Examples of these areas include sterile environments such as operating rooms and burn units.[99]

Although the *Tamara* court recognized that the presence of a service animal might "affect the ward,"[100] it did not find that allowing a service animal would fundamentally alter the nature of the facility.[101] The court continued by finding the hospital "is unlikely to have complied with the

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[94] *Id.* In December 2011, the hospital's policy was that service animals would be allowed in the facility except for "(1) areas with established traffic control, and (2) areas that the hospital determined necessary to restrict on a case-by-case basis in order to protect the health and safety of the patients." *Id.*

[95] *Id.* The hospital's position was if Ms. Tamara would be "admitted to the psychiatric ward again, she would have difficulty caring for Inglis, and the highly sensitive nature of the treatment facilities in that unit would make the admission of dogs dangerous for . . . all [the] staff, patients, and service animals." *Id.*

[96] *Id.* at 1082–83.

[97] *See id.* at 1083.

[98] *Id.* The rationale for this is that these types of barrier precautions could not be reasonably imposed on service animals. *Id.* at 1083–84.

[99] *Id.* at 1084.

[100] *Id.* (citing to the hospital's arguments that the dog would be a potential source of stress or patients may fixate on the animal). The hospital also argued "having a dog in the psychiatric unit would be unsafe because its harness could be used as a weapon and the dog might dangerously upset some patients" but the court found "these accusations are all based upon generalized speculation." *Id.* at 1085.

[101] *Id.* at 1084. Ms. Tamara had provided examples of stand-alone psychiatric hospitals and general hospitals with psychiatric wards that allowed the admittance of service animals. *Id.* Ms. Tamara also provided expert testimony explaining how accommodations could be made including simple steps such as "shutting doors." *Id.*

ADA" without having made an individualized assessment of Inglis, Ms. Tamara's ability to care for Inglis, or if this particular psychiatric ward had patients who would be dangerously upset by Inglis' presence.[102] Because the court found that Ms. Tamara was likely to succeed on the merits, irreparable harm existed, and the balancing of the hardships and the public interest favored Ms. Tamara, it granted her motion for a preliminary injunction.[103] The court reiterated that the order did not mean that Ms. Tamara would be able to bring Inglis with her if admitted to the hospital but only required "that an individualized assessment be made . . . to determine whether [Inglis] can be safely allowed in the psychiatric ward."[104]

As discussed *infra*, just as in any other healthcare setting, there can be risks to both people and the animals when an animal is included in a facility devoted to psychological care.[105] However, given the possible interaction with patients in the unit, there may be special issues—using a soft silicone bowl for feeding because a metal bowl could be used as a projectile, or monitoring the use of a leash that could be used by a suicidal patient to strangle him or herself—that should be taken into consideration when an entity is making such an accommodation.[106]

2. Medical Professionals' Offices

As with other types of businesses, medical professionals can be confused over their obligations to patients and potential patients with service

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[102] *Id.* at 1085–86. The court also addressed the potential use of the harness as a weapon by finding there was nothing indicating that the hospital considered alternatives to deal with this issue. *Id.* at 1086.

[103] *Id.* at 1086–88. In finding the balancing of the hardships favored Ms. Tamara, the court found Ms. Tamara and similarly-situated individuals face "great harm to their overall independence, equality, and dignity" while the hospital faces "only an administrative inconvenience mandated by law." *Id.* at 1087–88. The court found the public interest also in Ms. Tamara's favor because she requested only an individualized assessment rather than an injunction that would admit her service dog "regardless of the circumstances." *Id.* at 1088.

[104] *Id.*

[105] *Infra* notes 258–350 and accompanying text (discussing risks to humans and animals); *see also* Laurel D. Pellegrino et al., *Service Dogs in the Hospital: Helpful or Harmful? A Case Report and Clinical Recommendations*, 57 PSYCHOSOMATICS 301 (2016) (reporting on a case where a service animal accompanied an individual detained for involuntary psychiatric treatment and issues arising from it); Rothberg & Collins, *supra* note 85 (discussing specific issues that may apply if a service dog is included in a group psychotherapy setting, including factors that may cause stress to the dog or other members of the group).

[106] Grace, *supra* note 86; Pellegrino et al., *supra* note 105, at 304.

animals.[107] The "professional office of a health care provider" is listed in the Title III ADA regulations as an example of a public accommodation.[108] Essentially, if an office is open to the public, it is required to follow the ADA.[109] As with service animals in hospital environments, a medical professional may exclude a service animal from a highly controlled or sterile environment.[110] One organization provides the following example: if a spouse or parent of a patient would be able to be excluded, a service animal could likely be excluded as well.[111]

However, in addition to the basic issue of not allowing the service animal in the office, medical professionals, as public accommodations, also are required to treat persons with disabilities in a nondiscriminatory manner.[112] For example, a medical professional's office cannot restrict an individual partnered with a service animal to any particular appointment time.[113] The *Davis v. Seven Oaks Medical Group* case dealing with a motion to dismiss

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[107] *FAQ: Do Service Dogs Have to be Accommodated in a Physician's Office?*, CAL. MED. ASS'N (July 9, 2014), https://www.cmanet.org/news/detail/?article=faq-do-service-dogs-have-to-be-accommodated-in (providing basic information to physicians regarding their obligations under the ADA); *Service Animals and the Physician's Office*, TENN. MED. ASS'N (Sept. 8, 2016), https://www.tnmed.org/Documents/Service%20Animals%20in%20Physician%20Office.pdf (discussing obligations of physicians). *See also Service Animals: Access to Dental Facilities*, DENTIST TODAY (Aug. 1, 2006), http://www.dentistrytoday.com/regulatory/1758- (last visited Jan. 25, 2018) (providing guidance to dental professionals). There are multiple fact sheets available online for persons with disabilities to bring to help educate medical professionals. *E.g.*, *Service Animals and the Doctor's Office*, DISABILITY RTS. N.C., http://www.disabilityrightsnc.org/sites/default/files/Service%20Animal-MedicalSettings-Self-Advocacy%20Packet%20DRNC.pdf (last visited Jan. 25, 2018). The refusal to provide access for persons with service animals can cause backlash against the medical provider. *See, e.g.*, *Doctor Kicks Blind Man and His Guide Dog Out of Clinic*, LIFE WITH DOGS (Aug. 11, 2011), http://www.lifewithdogs.tv/2011/08/doctor-kicks-blind-man-and-his-service-dog-out-of-clinic/ (providing example of negative comments after media reported the exclusion of a patient's spouse who was partnered with a service dog from a waiting room).

[108] 28 C.F.R. § 36.104(6) (defining public accommodations under Title III of the ADA). *See also* Klatch-Maynard v. ENT Surgical Assoc. Hazleton Health & Wellness Ctr., 404 Fed. Appx. 581, 583–85 (3d Cir. 2010) (affirming dismissal of case alleging violation of ADA based on refusal to permit access of woman with her service dog to medical offices due to issues with pleading).

[109] *Service Animals and the Physician's Office*, *supra* note 107, at 1.

[110] *Id.*

[111] *Id.*

[112] *See infra* notes 120–25 and accompanying text (describing conditions set forth on a settlement of an administrative action).

[113] Davis v. Seven Oaks Med. Group, 2014 WL 3966295 (E.D. Cal. 2014) (providing an example of this issue); *infra* notes 120–25 and accompanying text (describing settlement agreement provisions).

for failure to state a claim illustrates this "unequal opportunity to benefit" discrimination prohibited by the ADA.[114] In the *Davis* case, Ms. Davis was informed by the office manager after her second visit to a doctor's office that "her appointments would be restricted to 4:00 P.M. in the future because Davis [was] accompanied by her service animal."[115] In response to a letter from Ms. Davis asking the doctor to allow her to select from a variety of appointment times, the doctor refused her request and asked her to find a new doctor.[116] The court found (at this stage of the proceedings) the doctor's response "indicated that he will no longer extend to her the opportunity to benefit from his medical care services" giving rise "to a reasonable inference that Davis was denied an opportunity to benefit from [the doctor's] services in violation of Title III of the ADA."[117]

This restriction on additional conditions or disparate treatment can be illustrated by an administrative action brought by the DOJ.[118] The U.S. Attorney's Office can investigate complaints made by individuals who

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[114] *Davis*, 2014 WL 3966295, at *3 (analyzing the language of Title III of the ADA). At this stage of the proceedings the court accepted Ms. Davis' factual allegations as true and drew all reasonable inferences in favor of Ms. Davis as the non-moving party. *Id.* at *4.

[115] *Id.* at *1.

[116] *Id.* Ms. Davis also informed the doctor that the placement of a limit on her appointments because of her service animal was discriminatory. *Id.*

[117] *Id.* at *4. Note that the court accepted Ms. Davis' factual allegations as true at this point in the process in denying the defendant's motion to dismiss the ADA claim. *Id.* The court emphasized the "need for discovery in such cases where the alleged discriminatory conduct relies on the assessment of facts and details that are not required at the motion to dismiss stage." *Id.* at *6 n.2.

[118] The DOJ administers and enforces Title III of the ADA. 42 U.S.C. § 12188 et seq. (2012). This administrative action may become public or the resolution may be reported generally by the DOJ. *E.g.*:

> An individual who has myasthenia gravis complained that the outpatient center of a Maryland hospital refused to provide her scheduled medical services because she uses a service animal. The hospital agreed to adopt and implement a policy permitting service animals in its facilities and, in instances when a service animal cannot be in the room during a procedure (such as an MRI), the hospital will provide, at no cost to the patient, a bonded pet sitting service if the patient is unable to bring a companion to look after the service animal. The hospital also agreed to train staff on ADA requirements and compensate the complainant $5,000.

Enforcing the ADA: A Status Report by the Department of Justice January–March 2011, U.S. DEP'T OF JUSTICE: OFFICE OF CIVIL RIGHTS (2011) https://www.ada.gov/janmar11.htm. Another example is "[a]n individual with a disability complained that she was denied access to a Texas medical practice because she uses a service animal. The practice agreed to adopt, implement, and post a policy welcoming service animals and train its staff on the policy." *Id.*

believe they have been denied access to medical services.[119] Settlement agreements in these types of cases often call for remedial action by the medical professional or entity.[120] Remedial action can consist of an agreement by the entity not to discriminate against any individual on the basis of disability and to modify policies, practices, or procedures.[121]

The entity may be required to adopt a "Service Animal Policy," the contents of which can be set forth in an attachment to the settlement agreement.[122] For example, one settlement agreement's service animal policy specifically requires that employees "must not ask if a patient or potential patient has a disability or is accompanied by a service animal before agreeing to schedule an appointment, admit the patient into the office, or provide medical services to that individual" and "must not require a patient or potential patient accompanied by a service animal to comply with any additional conditions of service not imposed on patients generally" including the payment of any surcharge or deposit.[123] A settlement

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[119] 42 U.S.C. § 12188(b)(1)(B) (2012):

> If the Attorney General has reasonable cause to believe that—(i) any person or group of persons is engaged in a pattern or practice of discrimination . . .; or (ii) any person or group of persons has been discriminated against under this subchapter and such discrimination raises an issue of general public importance, the Attorney General may commence a civil action in any appropriate United States district court.

Id. See also How to File an ADA Complaint with the U.S. Department of Justice, U.S. DEP'T OF JUSTICE: OFFICE OF CIVIL RIGHTS, https://www.ada.gov/fact_on_complaint.htm (last visited Jan. 25, 2018) (providing complaint process, including access to online complaint form and link to information regarding the ADA Mediation Program, which is provided at no cost to the parties). Because the DOJ receives a significant number of complaints related to the ADA, the review process can take up to three months. *Id.* (discussing the ability of persons who submit complaints to check on the status of their submissions).

[120] *E.g.*, *Settlement Agreement Under the Americans with Disabilities Act Between the U.S. of Am. & Dr. Bruce Berenson, M.D., P.A. for Complaint USAO No: 2011-VO-0468/DJ No. 202-18-267* (Aug. 23, 2012), https://www.ada.gov/berenson_settle.htm. The Settlement Agreement begins with setting forth the background of the complaint and jurisdiction of the DOJ. *Id.*

[121] *Id.* Compensatory damages may also be required to be paid to the complainant. *Id.* (awarding five hundred dollars to the complainant with the complainant executing a waiver and release of claim form). Settlement agreements set forth enforcement provisions, including the reservation of the right by the U.S. government to institute a civil action if the United States believes the agreement has been violated. *Id.* Settlement agreements have an effective date, with the settlement agreement discussed herein beginning on the date of the last signature and remaining in effect for three years. *Id.*

[122] *Id.* The service animal policy defines what is a service animal and sets forth the specific questions that may and may not be asked by the personnel employed by the entity. *Id.*

[123] *Id.* Other prohibited conditions of service would include:

agreement may also provide for an entity to train present and future employees who may have contact with patients or potential patients and could require the posting of notices with specified language regarding the entity's service animal policy.[124]

As with application of the ADA to any public accommodation, if a particular service animal's behavior poses a direct threat to the health or safety of others, an entity can exclude the animal from the office (though it must still provide service to the individual if he or she is not accompanied by the service animal).[125]

C. Federal Facilities

The Federal Government and its facilities are not subject to the ADA.[126] However, laws that apply to federal facilities provide access for individuals with disabilities partnered with service animals.[127] Of particular relevance to this Article are the provisions that apply to medical facilities operated under the Department of Defense (DoD) and Department of Veterans Affairs through the Veterans Health Administration (VA).[128]

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asking or requiring patients or potential patients accompanied by service animals to muzzle the animals, placing restrictions on the areas of the medical office in which patients or potential patients accompanied by service animals are or will be permitted, making patients or potential patients accompanied by service animals wait longer than people without service animals before providing medical services, and making hostile, angry, or insulting comments about a person's service animal or disability.

Id.

[124] *Id.* (providing for training for existing employees within sixty days of the settlement agreement and training for new employees within two days of beginning service, as well as for signs with specified font in the reception offices with the following language "Persons with disabilities who are accompanied by a service animal are welcome in the medical offices of Dr. Bruce Berenson, P.A." *Id.*

[125] *Id.* An entity cannot "deny medical services to a person with a disability accompanied by a service animal based on fear of animals or a specific type of animal even if such fear is based on past experiences with other animals." *Id.* In this settlement agreement, consultation with the physician or senior manager on duty is required in any decision to refuse to provide services to a person with a service animal. *Id.*

[126] 42 U.S.C. § 12131 (2018) (defining public entity in Title II of the ADA as a "State or local government" along with departments or instrumentality of such governments).

[127] 41 C.F.R. § 102–74.425 (stating "[n]o person may bring dogs or other animals on Federal property for other than official purposes. However, a disabled person may bring a seeing-eye dog, a guide dog, or other animal assisting or being trained to assist that individual").

[128] 38 C.F.R. § 1.218 (regulations applying to facilities operated by the VA); DEPARTMENT OF DEFENSE, INSTRUCTION 1300.27, GUIDANCE ON THE USE OF SERVICE DOGS BY SERVICE MEMBERS, (Jan. 7, 2016), http://warriorcare.DoDlive.mil/files/2016/03/DoDI-

1. Department of Defense

The DoD's Military Health System consists of over 50 hospitals and over 370 medical clinics.[129] Approximately 1.4 million active duty service members are beneficiaries of the DoD system.[130] Although the DoD and its components can issue new directives at any time that may alter the rights of access, there have been common themes in recent guidance issued by the DoD.[131] For example, the Army used language similar to the ADA to define service dog as a dog "individually trained to do work or perform *specific* tasks for the benefit of an individual with a disability," while a later

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Guidance-on-the-Use-of-Service-Dogs-by-Service-Members_1300.27.pdf (establishing policy for the use of service dogs on DoD installations) [hereinafter DoD INSTRUCTION NO. 1300.27]. There are two separate systems for healthcare operated by the DoD and VA. Julie Rovner, *VA and Military Health Care Are Separate, Yet Often Confused*, NPR (May 30, 2014), https://www.npr.org/sections/health-shots/2014/05/30/317381276/va-and-military-health-care-are-separate-yet-often-confused (discussing the distinction between the health system operated by the VA and the Military Health System operated by the DoD). There has been increased integration of healthcare services between the two systems and the DoD sometimes utilizes standards set by the VA. *DoD/VA Program Office*, HEALTH, https://health.mil/About-MHS/Defense-Health-Agency/Special-Staff/DoD-VA-Program-Office (last visited Jan. 25, 2018) (setting forth the law and DoD instruction relating to the partnership between the DoD and VA); *infra* note 136 and accompanying text (describing deference of DoD to the VA's position on the training of service animals). *See infra* notes 143–58 and accompanying text (discussing VA policies).

[129] *MHS Facilities*, DEP'T OF DEFENSE, https://health.mil/I-Am-A/Media/Media-Center/MHS-Health-Facilities (last visited Jan. 25, 2018).

[130] *Patients by Beneficiary Category*, DEP'T OF DEFENSE, https://health.mil/I-Am-A/Media/Media-Center/Patient-Population-Statistics/Patients-by-Beneficiary-Category (last visited Jan. 25, 2018). In addition, this system also serves retired service members and family members. *Id.* Annually, there are approximately 242,000 in-patient admissions for military facilities alone. *Patient Care Numbers for the Military Health System*, DEP'T OF DEFENSE, https://health.mil/I-Am-A/Media/Media-Center/Patient-Care-Numbers-for-the-MHS (last visited Jan. 25, 2018).

[131] DoD INSTRUCTION NO. 1300.27, *supra* note 128 (providing the most recent guidance); DEPARTMENT OF DEFENSE, ARMY DIRECTIVE 2013-01, GUIDANCE ON THE ACQUISITION AND USE OF SERVICE DOGS BY SOLDIERS (Jan. 28, 2013), http://www.apd.army.mil/epubs/DR_pubs/DR_a/pdf/web/ad2013_01.pdf [hereinafter ARMY DIRECTIVE 2013-01] (setting forth policies relating to soldiers with disabilities). *See also* POLICY MEMO 12-005, DEP'T OF THE ARMY, OTSG/MEDCOM, subject: Overarching Guidance on the Use of Animals in the Healthcare Setting (Service Animals, Animal Assisted Therapies, and Animal Assisted Activities) (Jan. 30, 2012), expiring Jan. 30, 2014, https://www.army.mil/e2/c/downloads/250935.pdf (illustrating development of policies); Kathleen L. Watkins, *Policy Initiatives for the Use of Canines in Army Medicine*, THE ARMY MEDICAL DEP'T J., April–June 2012, 8 (discussing the revision of DoD policies regarding animals).

DoD document dropped the term "specific" from the definition.[132] Similarly, a 2013 Army directive, following a policy of the VA, did not recognize service dogs for behavioral health conditions and thus service dogs assisting with psychological conditions were not covered by the policy; however, a 2016 DoD Instruction includes dogs individually trained to work for the benefit of individuals with mental disabilities.[133]

Individuals with their service dogs will be given access to DoD facilities generally open to the public including hospitals and treatment facilities.[134] However, a handler with a service dog can be refused access if there are any issues regarding "public health (including infection control standards), safety, readiness, mission accomplishment, and good order and discipline."[135] The ability of a trainer of a service dog to access a facility is at the discretion of the installation's senior commander, but only if the training is occurring "under the auspices of a source accredited by a VA-accredited organization."[136] Service members are not authorized to train their own service dogs; however, allowing access to trainers as part of a medically-supervised program where the process of training the dog is beneficial to the trainer may be allowed.[137]

Just like the provisions applying to handlers under the ADA, service members are responsible for the care and control of their service dogs.[138]

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[132] ARMY DIRECTIVE 2013-01, *supra* note 131, at 1. The italicized language distinguishes this definition from the ADA definition. In the more recent DoD Instruction, the "specific" language is not included in the definition. DOD INSTRUCTION 1300.27, *supra* note 128 at 10.

[133] DOD INSTRUCTION 1300.27, *supra* note 128 at 10; ARMY DIRECTIVE 2013-01, *supra* note 131, at 1 (applying VA restriction on psychological service dogs). *See infra* notes 151–58 and accompanying text (discussing the VA's position regarding psychological service dogs).

[134] ARMY DIRECTIVE 2013-01, *supra* note 131, at 2; DOD INSTRUCTION 1300.27, *supra* note 128, at 1 (providing for recovering service members' utilization of service dogs on DoD installations on active duty).

[135] ARMY DIRECTIVE 2013-01, *supra* note 131, at 2. The more recent DoD Instruction provides "[c]omponent installation and MTF [Medical Treatment Facility] commanding officers will ensure Service members with assigned service dogs are granted facility access and accommodation to the greatest extent possible commensurate with health and safety." DOD INSTRUCTION 1300.27, *supra* note 128, at 8.

[136] ARMY DIRECTIVE 2013-01, *supra* note 131, at 1-2. *See also* DOD INSTRUCTION 1300.27, *supra* note 128, at 11 (providing that the Military Departments retain authority over access of service dogs in training).

[137] ARMY DIRECTIVE 2013-01, *supra* note 131, at 1-2; *see infra* notes 187–92 and accompanying text (discussing this type of program). The directive reiterates that the use of such program and granting of access rights for the dogs of such a program is at the discretion of the commander of the medical treatment facility. ARMY DIRECTIVE 2013-01, *supra* note 131, at 2.

[138] DOD INSTRUCTION 1300.27, *supra* note 128, at 8; ARMY DIRECTIVE 2013-01, *supra*

However, unlike the ADA, service members with service dogs are required to register their service dogs and ensure that those dogs wear a vest or harness identifying the dogs as service dogs.[139]

2. *Department of Veterans Affairs' Veterans Health Administration*

The VA provides healthcare at over 1,200 facilities, including 170 medical centers.[140] Each year, the VA's system serves nine million enrolled veterans.[141] Given the size of the system, and the apparent demand for service animals by veterans with disabilities, it is not surprising these facilities may deal with access issues on a regular basis.[142]

The regulations that control access to VA facilities ("VA Regulations") contain a definition of service animal that mirrors the ADA Title II and Title III definition above, with the exception that the VA Regulations specifically provide "[s]ervice dogs in training are not considered service

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note 131, at 6.

[139] ARMY DIRECTIVE 2013-01, *supra* note 131, at 6; *see* DOD INSTRUCTION 1300.27, *supra* note 128, at 8. Registration is with the installation's equivalent of the garrison provost marshal's office/directorate of emergency services. ARMY DIRECTIVE 2013-01, *supra* note 131, at 6. A registry of the service dogs on each garrison is maintained. *Id.* at 6. For active duty personnel, only service dogs obtained from a VA-recognized source are allowed in DoD facilities. DOD INSTRUCTION 1300.27, *supra* note 128, at 10 (incorporating requirement in the definition of service dog); ARMY DIRECTIVE 2013-01, *supra* note 131, at 7. There is an exception to this rule for certain service dogs acquired prior to the effective date of the policy. ARMY DIRECTIVE 2013-01, *supra* note 131, at 7.

[140] *Veterans Health Administration*, U.S. DEP'T OF VETERANS AFFAIRS, https://www.va.gov/health/ (last visited Jan. 25, 2018) (describing the Veterans Health Administration as the United States' "largest integrated health care system").

[141] *Id.*; *see, e.g.*, McAuliffe v. U.S. Dep't of Veterans Affairs, 2007 WL 2123690 (N.D. Cal. 2007) (discussing applicability of claims under the Rehabilitation Act and the Federal Tort Claims Act arising out of an incident where a veteran was confronted by an employee of a VA hospital about his service dog); McKinley v. U.S., Docket No. 3:14-CV-01931-HZ, 2015 WL 4663206, *5, 12 (D. Ore 2015) (granting motion to dismiss a variety of claims that were based in part on a veteran's allegation her PTSD service dog was seized unlawfully at the emergency room of a VA hospital).

[142] *Service Dog Providers for Veterans*, VETS ADOPT PETS, http://vetsadoptpets.org/vetservicedogs.html (last visited Jan. 25, 2018) (stating that "[d]ue to the large volume of Veterans needing Service Dogs, some organizations now have a very long waiting list for a Service Dog" and listing service animal organizations and training courses). Concerns over the ability to access a VA facility may cause a veteran to avoid going to VA properties for examination or treatment. Bd. Vet. App. 1005664, 2010 WL 1479316, *2 (Feb. 16, 2010) (listing as a reason for not reporting for an examination that "VA hospitals do not agree with Fed law concerning access for disabled persons w/ service animals . . . I am not prepared to have emotional distress caused by their policies").

animals."[143] It is important to note that all service animals, including animals trained to do work or perform tasks for the benefit of an individual with a psychiatric or other mental disability, are included in the definition of service animal.[144] The VA Regulations also include similar language to the ADA Title II and Title III provisions explaining that the animal must be under control of the handler and describing when an animal can be excluded from the premises.[145]

The VA Regulations contain specific language regarding the restriction of service animals from VA properties "to ensure patient care, patient safety, or infection control standards are not compromised."[146] Service animals are restricted from entering into areas including but not limited to:

> (A) Operating rooms and surgical suites;
>
> (B) Areas where invasive procedures are being performed;
>
> (C) Acute inpatient hospital settings when the presence of the service animal is not part of a documented treatment plan;

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[143] 38 C.F.R. § 1.218(a)(11)(viii). The service animal definition is applicable regardless of whether benefits supporting the service dog are being provided by the VA. *Id.* In addition, there is no language in the VA Regulations relating to the use of miniature horses as service animals. 38 C.F.R. § 1.218. *See infra* notes 171–86 and accompanying text (discussing general issue of service animals in training).

[144] 38 C.F.R. § 1.218(a)(11)(viii). The VA Regulations state the "definition applies regardless of whether VA is providing benefits to support a service dog." *Id.*

[145] 38 C.F.R. § 1.218(a)(11)(i-ii). The VA Regulations expand the language regarding an animal being under the control of the individual with the disability to include "or an alternate handler," and add to the language regarding an animal being housebroken to state the "animal must be trained to eliminate its waste in an outdoor area." *Id.* The VA Regulations also expand the language regarding determining whether an animal poses a risk to "health or safety of people or other service animals." *Id.* at § 1.218(a)(11)(ii).

> [The] VA will make an individualized assessment based on objective indications to ascertain the severity of the risk. Such indications include but are not limited to: (1) External signs of aggression from the service animal, such as growling, biting or snapping, baring its teeth, lunging; or (2) External signs of parasites on the service animal (*e.g.* fleas, ticks), or other external signs of disease or bad health (*e.g.* diarrhea or vomiting).

Id. The VA Regulations also address the issue of documentation and only require the individual with a disability to provide documentation confirming the service animal has received certain vaccinations if the individual is receiving treatment in a VHA residential treatment program. *Id.* at 1.218(a)(11)(vi–vii). Otherwise, individuals are not required to provide proof "an animal has been certified, trained, or licensed as a service animal, to gain access to VA property accompanied by the service animal." *Id.* at 1.218(a)(11)(vi). The individual may be asked "if the animal is required because of a disability, and what work or task the animal has been trained to perform." *Id.*

[146] 38 C.F.R. § 1.218(a)(11)(iii).

(D) Decontamination, sterile processing, and sterile storage areas;

(E) Food preparation areas (not to include public food service areas); and

(F) Any areas where personal protective clothing must be worn or barrier protective measures must be taken to enter.[147]

Although the VA does not provide guide or service dogs, it does provide benefits including veterinary healthcare "to maximize the life and utility of these specialized dogs."[148] The benefits are limited to veterans with a "visual, hearing, or substantial mobility impairment."[149] In addition, both the dog and veteran must complete a training program by an accredited organization in order to be eligible for the benefits.[150]

A controversial issue that has arisen in connection with the VA is its position that it will not support service dogs for individuals with post-traumatic stress disorder (PTSD).[151] The VA defines PTSD as a "mental health problem that some people develop after experiencing or witnessing a life-threatening event, like combat[.]"[152] Symptoms may include hyperarousal, re-experiencing symptoms (e.g. nightmares), having negative beliefs or feelings (guilt, shame, numbness), and avoidance of situations that may remind an individual of the traumatic event.[153] The VA reports

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[147] *Id.*

[148] *Service Dog/Guide Dog Benefit Rules*, DEP'T OF VETERANS AFFAIRS, (May 2016), https://www.prosthetics.va.gov/factsheet/PSAS-FactSheet-ServiceDogs.pdf (last visited Jan. 25, 2018). The VA does not own the dog, and the veteran remains responsible for day-to-day expenses, including food, grooming and over-the-counter medications. 38 C.F.R. § 17.148(d)(4).

[149] 38 C.F.R. § 17.148(b)(1). A traumatic brain injury "that compromises a veteran's ability to make appropriate decisions based on environmental cues (i.e., traffic lights or dangerous obstacles) or a seizure disorder that causes a veteran to become immobile during and after a seizure event" are included in the definition of a substantial mobility impairment. *Id. See also VA Pilots Program to Expand Veterinary Health Benefits for Mental Health Mobility Service Dogs*, U.S. DEP'T OF VETERANS AFFAIRS (Dec. 8, 2016, 10:42 AM), https://www.blogs.va.gov/VAntage/33379/va-pilots-program-to-expand-veterinary-health-benefit-for-mental-health-mobility-service-dogs/ (last visited Jan. 25, 2018) (describing limited pilot program to support veterans with service dogs assisting with mobility issues).

[150] 38 C.F.R. § 17.148(c)(1).

[151] *Dogs and PTSD,* U.S. DEP'T OF VETERANS AFFAIRS, (Aug. 14, 2015), https://www.ptsd.va.gov/public/treatment/cope/dogs_and_ptsd.asp (last visited Jan. 25, 2018); *see Rehabilitation and Prosthetic Services: Guide and Service Dogs*, U.S. DEP'T OF VETERANS AFFAIRS, https://www.prosthetics.va.gov/ServiceAndGuideDogs.asp (last visited Jan. 25, 2018) ("Protecting someone, giving emotional support, or being a companion do not qualify a dog to be a service animal.").

[152] *What Is PTSD?,* U.S. DEP'T OF VETERANS AFFAIRS, NATIONAL CENTER FOR PTSD (Sept. 15, 2017) https://www.ptsd.va.gov/public/PTSD-overview/basics/what-is-ptsd.asp.

[153] *Id.* Other problems include problems with alcohol or drugs, depression, anxiety and

that eleven to twenty percent of veterans of Operation Iraqi Freedom and Enduring Freedom experience PTSD in a given year.[154]

The VA's position denying coverage for service dogs for veterans suffering from PTSD has been examined by commentators.[155] The VA references the lack of clinical research supporting whether dogs help to treat PTSD or PTSD's symptoms to justify its position.[156] The VA has and is continuing to engage in research to determine whether dogs can be used to provide services for persons with PTSD.[157] Other sources have also allocated funding to study the impact of partnering service dogs with veterans with PTSD.[158]

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issues with relationships and employment. *Id.*

[154] *How Common Is PTSD?*, U.S. DEP'T OF VETERANS AFFAIRS (Oct. 3, 2017), https://www.ptsd.va.gov/public/PTSD-overview/basics/how-common-is-ptsd.asp. The VA reports about twelve percent of Gulf War veterans experience PTSD in a given year. *Id.* There are estimates that thirty percent of Vietnam veterans have had PTSD during their lifetime with fifteen percent of Vietnam veterans currently diagnosed with the disorder at the time of the most recent study. *Id.*

[155] *See* Alma Nunley, *Service Dogs for (Some) Veterans: Inequality in the Treatment of Disabilities by the Department of Veterans Affairs*, 17 QUINNIPIAC HEALTH L.J. 261 (2014) (proposing modification of the VA regulation limiting coverage of service dogs to conditions involving physical disabilities). Ms. Nunley also analyzes arguments that the VA is in violation of the Rehabilitation Act and the Equal Protection Clause of the Fourteenth Amendment of the Constitution and concludes that a challenge to the regulations based on the Rehabilitation Act is unlikely to succeed. *Id.* at 277–89. However, based on the standard of review used by the court, an action based on the Equal Protection Clause of the Fourteenth Amendment may result in the regulation being deemed unconstitutional. *Id.*

[156] *Dogs and PTSD, supra* note 151 (setting forth the VA's position on dogs and PTSD).

[157] *Id.* (reporting that there is an ongoing study); *Can Service Dogs Improve Activity and Quality of Life in Veterans with PTSD?*, CLINICALTRIALS.GOV (Jan. 20, 2014), https://clinicaltrials.gov/ct2/show/NCT02039843 (providing information about a study by the VA Office of Research and Development that began in 2014 and is scheduled to be completed in 2020). A twelve million dollar VA study was criticized for issues including the training protocol required. Allen G. Breed, *VA Study on Whether Dogs Can Heal Vets With PTSD Has Critics*, AP (Apr. 21, 2016), https://apnews.com/9d9826acf76b485f9ed5ad31487fc353 (last visited Jan. 25, 2018) (discussing issues with a study that began in 2011, including reports of dogs biting participants' children and issues with training); *see also* Nunley, *supra* note 155, at 275–76 (discussing history of pilot program and issues with study); *PTSD Study*, PAWSITIVITY SERVICE DOGS, https://www.pawsitivityservicedogs.com/ptsd_study (last visited Jan. 25, 2018) (discussing history of VA's PTSD service dogs studies).

[158] Eric Feldman, *Purdue Gets Funding for Potential Groundbreaking Study on Veterans and Service Dogs*, WISHTV.COM (June 7, 2017, 11:22 PM), http://wishtv.com/2017/06/07/purdue-gets-funding-for-potential-groundbreaking-study-on-veterans-and-service-dogs/ (last visited Jan. 25, 2018) (discussing the lack of data that service dogs help veterans with PTSD and describing a two-year study). This study is funded

The provision of service dogs to service members and veterans has been the focus of recent legislative activity.[159] The Wounded Warrior Service Dog Act of 2017 calls for the establishment of a program to award competitive grants to nonprofit organizations in order to assist in the establishment and operation of programs providing assistance dogs to service members and veterans.[160] The service members and veterans who would be recipients of such assistance dogs are those with a variety of disabilities, including traumatic brain injury and PTSD.[161] The legislation's definition of "assistance dog" is a dog "a dog specifically trained to perform physical tasks to mitigate the effects of a disability."[162] The legislation also requires the grant recipients to evaluate the effectiveness of the activities supported by the grant.[163]

The Pups for Patriots Act of 2017 would establish a pilot program for service dogs to be provided to veterans who served on active duty on or after September 11, 2001, and who have been diagnosed with a severe traumatic brain injury or post-traumatic stress.[164] The legislation would require an annual report to Congress with information including "an analysis of each eligible veteran's ability to professionally and socially reintegrate, to reduce dependence on prescriptive medicines, and on relevant metrics pertaining to the veteran's diagnosis of a mental health mobility disorder related to post-traumatic stress or a traumatic brain injury."[165]

A similar bill, titled Puppies Assisting Wounded Servicemembers Act of 2017 or the PAWS Act, was introduced both in the Senate and in the House

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by grants from the National Institutes of Health and Merrick Pet Care. *NIH Funds PVM Study of Service Dogs' Effects on Veterans with PTSD*, PURDUE UNIV. COLLEGE OF VETERINARY MED. (June 9, 2017), https://vet.purdue.edu/newsroom/2017/170609-pvm-ptsd-research.php (last visited Jan. 25, 2018).

[159] *See infra* notes 160–69 and accompanying text (describing recent legislative activity).

[160] Wounded Warrior Service Dog Act of 2017, H.R. 2625, 115TH CONG. §§ 1–2 (2017). Only organizations that are or could be accredited by a widely-recognized accreditation organization, such as Assistance Dogs International, would be eligible for the grants. *Id.* The grant application would include information on the experience of the organization working with DoD or VA medical facilities along with other information such as the proposed training of the humans and dogs and "commitment of the organization to human standards for animals." *Id.*

[161] H.R. 2625.

[162] *Id.*

[163] *Id.*

[164] H.R. 3335, 115th Cong., § 3 (2017). There are other eligibility requirements including a commitment to minimal evaluations. *Id.*

[165] *Id.* at § 3(e).

of Representatives.[166] The PAWS Act contained findings about veteran suicide and called for the VA to be more effective in its approach to suicide connected to mental health disorders to support the need for a pilot program pairing service dogs with veterans diagnosed with PTSD.[167] In addition to other requirements, the nonprofit organizations that would provide service dogs under the program would be required to commit to providing follow-up services for the life of the service dog, including communication with the veterans to "ensure that the service dog is receiving proper care[.]"[168] The legislation would require the Secretary of Veterans Affairs to develop metrics and other means to measure and document the impact on the veterans participating in the program and report the findings to the relevant congressional committees.[169]

D. Other Issues

Two issues that frequently arise when analyzing issues relating to service animals are (1) whether handlers of service animals in training have access rights, and (2) the perception that people are fraudulently claiming their dogs as service animals in order to access facilities.[170]

1. Service Animals in Training

Service animals in training are not covered under the ADA, thus a handler of a service animal in training can be denied access to public entities and public accommodations under federal law.[171] However, most states have enacted legislation to provide for trainers of service animals to

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[166] S. 1014, 115th Cong. (2017); H.R. 2327, 115th Cong. (2017).

[167] S. 1014 at §§ 2 & 3; H.R. 2327, at §§ 2 & 3.

[168] S. 1014 at § 3; H.R. 2327 at § 3. This bill also provides, "[i]f at any point the veteran is no longer able or willing to care for the service dog, the veteran and the organization that provided the service dog to the veteran shall determine the appropriate recourse to ensure the safety of both the veteran and the service dog." S. 1014, at § 3; H.R. 2327 at § 3.

[169] S. 1014 at § 3; H.R. 2327 at § 3.

[170] *Infra* notes 171–210 and accompanying text (discussing service animals in training and the issue of misrepresentation).

[171] *Supra* note 28 and accompanying text (defining service animal under the ADA); *see also* Proffer v. Columbia Tower, No. 98-CV-1404-K (AJB), 1999 WL 33798637 at *5–7 (S.D. Cal. Mar. 4, 1999) (analyzing the legislative history of the ADA and finding that the ADA does not apply to service animals in training); DOJ FAQ, *supra* note 37, at Q6 (asking "[a]re service-animals-in-training considered service animals under the ADA? A. No. Under the ADA, the dog must already be trained before it can be taken into public. However, some state or local laws cover animals that are still in training.").

have similar access to public entities and public accommodations as individuals with disabilities partnered with service animals.[172]

State laws vary in how they cover service animals in training.[173] States may include service animals in training within the definition of "service animal," or in the general provision requiring that individuals with disabilities who are partnered with service animals be granted access to entities or accommodations.[174] A state may also adopt a separate statutory provision providing for the right of access for trainers.[175] States often restrict such right of access to specific situations (such as when trainers are actually engaged in training), and may require certain forms of identification, or that the handler be associated with an accredited service animal training school.[176]

It is challenging to find reported cases interpreting these "service animal in training" provisions;[177] however, a recent California case illustrates some of the issues associated with construing the standards.[178] In *Miller v. Fortune Commercial Corporation* (FCC), plaintiff Mr. Miller sued the FCC and other defendants alleging that they denied him service when he tried to enter multiple stores in a complex with his service dog Roxy.[179] Mr. Miller made concessions that the dog "wasn't fully trained" and was "in the process of being trained," so the primary issue was whether Mr. Miller or

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[172] Huss, *Conundrum*, *supra* note 37, at 1593–97 (analyzing state service animal in training provisions); Rebecca F. Wisch, *Table of State Assistance Animal Laws*, MICH. ST. U.: ANIMAL LEGAL & HIST. CTR. (2016), https://www.animallaw.info/topic/table-state-assistance-animal-laws (providing table of state law provisions relating to assistance animals); *see also* Darcie Magnuson, *Service Animals in Training and the Law: An Imperfect System*, 14 SCHOLAR 987, 994–96, 1005–19 (2012) (discussing how people obtain service animals and state provisions allowing for access for service animals in training).

[173] Huss, *Conundrum*, *supra* note 37, at 1593–97 (discussing approaches of state laws).

[174] *See, e.g.*, 720 ILL COMP. STAT. 5/48-8 (2017) (providing trainers of service animals have the "right of entry and use" of public accommodations); UTAH CODE § 62A-5b-102(3)(a) (2018) (defining service animal as any dog who "is trained, or is in training").

[175] *See, e.g.*, COLO. REV. STAT. § 24-34-803(2) (2018) (providing parallel language for trainers of service animals).

[176] *See, e.g.*, KAN. STAT. § 39-1109 (2017) (providing for coverage for professional trainers from recognized training centers); N.H. REV. STAT. § 167-D:6 (2018) (requiring that the trainer must be engaged in the actual training process); N.C. GEN. STAT. § 168-4.2(b) (2017) (providing access only if the animal is identified as a service animal in training, such as through a harness or cape).

[177] *Cf.* David v. Ma, 848 F. Supp. 2d 1105, 1115 (C.D. Cal. 2012), *aff'd*, 568 F. App'x 488 (9th Cir. 2014) (analyzing the training of a dog and finding it was an uncontroverted fact that the dog was not fully trained as a service animal).

[178] Miller v. Fortune Commercial Corp., 223 Cal. Rptr. 3d 133 (Cal. Ct. App. 2017).

[179] *Id.* at 135.

his stepfather met the definition under the state's Disabled Persons Act granting access to trainers of service dogs.[180]

The court in *Miller* analyzed the language in the Disabled Persons Act which provided that persons who are "licensed to train guide dogs . . . authorized to train signal dogs . . . [or] authorized to train service dogs . . . may take dogs, *for the purpose of training them* as guide dogs, signal dogs, or service dogs" in the places specified in the statute.[181] The *Miller* court recognized that the statute did not define who was "authorized" to train signal or service dogs.[182] Mr. Miller argued the interpretation of "authorized" should mean "any person authorized by the disabled person to train his or her dog," including Mr. Miller's stepfather. However, the court rejected that interpretation, holding "'persons authorized to train service dogs' means [persons who are] credentialed to do so by virtue of their education or experience."[183]

The court found it was more likely than not a reasonable trier of fact would not find Mr. Miller entered into the premises for the purpose of training Roxy.[184] In addition, even if Mr. Miller's stepfather entered into the premises for the purpose of training Roxy, there was an absence of substantial evidence that Mr. Miller's stepfather was authorized by his education or experience to train service dogs.[185] Based on these findings, the defendants were granted a judgment as a matter of law on the Disabled Persons Act claim.[186]

Service animals in training may also be utilized in a healthcare environment as part of a therapy program where the patients train the animals.[187] In late 2017, a flurry of media coverage occurred when one

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[180] *See id.* at 140.

[181] *Id.* at 140–43 (analyzing CAL. CIV. CODE § 54.1(c) (2017)) (emphasis in original).

[182] *Id.* at 141. The California Code does, however, contain provisions regarding the licensing of guide dog instructors, and recent legislation added language subjecting persons who do not meet that standard to a fine or civil penalty. CAL. BUS. & PROF CODE § 7200–7202 (2018); *see also* CAL. CIV. CODE § 54.2 (including licensed trainers of guide dogs and persons authorized to train signal and service dogs as persons who may have access to the places specified in the statute).

[183] Miller v. Fortune Commercial Corp., 223 Cal. Rptr. 3d 133, 141-2 (Cal. Ct. App. 2017).

[184] *Id.* at 142. There was also an issue of Mr. Miller's capacity to train Roxy. *Id.*

[185] *Id.* at 143.

[186] *Id.*

[187] *See* H.R. Rep. No. 113-102, at 178-79 (2013) reporting on Service Dog Training Programs at Department of Defense Medical facilities); Chris Collins, *How Dogs Can Help Veterans Overcome PTSD,* SMITHSONIAN.COM (July 2012), http://www.smithsonianmag.com/science-nature/how-dogs-can-help-veterans-overcome-ptsd-137582968/?no-ist (reporting on program at VA medical center); Elizabeth M. Collins,

well-known program was abruptly suspended at the Walter Reed National Military Medical Center.[188] As illustrated by that program's suspension, allowing such a program to continue would be at the discretion of the medical facility's administration.[189]

Recent legislation calls for the VA to carry out a new five-year pilot program to assess "the effectiveness of addressing post-deployment mental health and post-traumatic stress disorder symptoms through a therapeutic medium of training service dogs for veterans with disabilities."[190] The pilot program would be designed to both "maximize the therapeutic benefits" to the program participants as well as "provide well-trained service dogs to veterans with disabilities[.]"[191] The Secretary of the VA would be required

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The Healing Power of Dogs, Soldiers with PTSD Train Service Dogs for Wounded Veterans, SOLDIERS (Dec. 4, 2014), http://soldiers.DoDlive.mil/tag/walter-reed-national-military-medical-center/ (describing program at Walter Reed National Military Medical Center); Spencer Milo & Elizabeth Collins, *How to Train a Service Dog,* SOLDIERS, (http://soldiers.DoDlive.mil/2014/12/how-to-train-a-service-dog/ (last visited Jan. 25, 2018) (describing process of training service dog as part of a soldier's recovery from PTSD and a traumatic brain injury).

[188] Arthur Allen, *Vets with PTSD Train Dogs to Help Comrades,* WASH. POST (Nov. 8, 2010), http://www.washingtonpost.com/wp-dyn/content/article/2010/11/08/AR2010110803376.html; C.J. Lin, *New Leash on Life: Service Dogs, Trained by and for Wounded Warriors,* STRIPES (Mar. 14, 2015), https://www.stripes.com/news/veterans/new-leash-on-life-service-dogs-trained-by-and-for-wounded-warriors-1.334415; Charlsy Panzino, *Warrior Canine Connection Seeks Answers After Control Is Halted at Walter Reed, Fort Belvoir,* ARMY TIMES (Nov. 17, 2017), https://www.armytimes.com/news/2017/11/17/warrior-canine-connection-seeks-answers-after-contract-is-halted-at-walter-reed-fort-belvoir/; Kate Ryan, *Veterinarian Gave Therapy Dog Group Ousted from Walter Reed Clean Bill of Health After "Letter of Concern,"* WTOP.COM (Nov. 11, 2017), https://wtop.com/local/2017/11/16542896/slide/1/; Kate Ryan, *Program that Pairs Service Dogs With Veterans Booted From Fort Belvoir and Walter Reed*, WTOP.COM (Nov. 8, 2017), https://wtop.com/local/2017/11/program-pairs-service-dogs-veterans-booted-ft-belvoir-walter-reed/slide/1/; Kristin Wright & Gina Cook, *Walter Reed Stops Contract with Service Dog Program Because of "Oversight" Issues*, NBC4 (Nov. 10, 2017), https://www.nbcwashington.com/news/local/Walter-Reed-Stops-Contract-With-Service-Dog-Program-Because-of-Oversight-Issues-456530813.html.

[189] U.S. ARMY VETERINARY SERVICE, TECHNICAL BULLETIN, MEDICAL DOD HUMAN-ANIMAL BOND PROGRAM PRINCIPLES AND GUIDELINES 12-13 (2015), https://www.apd.army.mil/epubs/DR_pubs/DR_a/pdf/web/tbmed4.pdf [hereinafter DOD HUMAN-ANIMAL BOND] (requiring approval of chain of command); *see also supra* note 137 and accompanying text (discussing the role of the hospital administration in approving programs).

[190] H.R. 2225, 115th Cong., (2017).

[191] H.R. 2225 at § 2(f). The program could also provide employment opportunities to veterans with a preference for hiring the trainers granted to veterans with minimal credentials. *Id.*

to collect data and report to Congress on the effectiveness of the program.[192]

2. Misrepresentation of Status of Animal

Concerns have been raised by both businesses and advocates for persons with disabilities over the issue of whether people are misrepresenting the status of their companion animals as service animals.[193] As discussed in Part II.A., the ADA allows only limited inquiries to persons purportedly accompanied by service animals.[194] During the process of revising the ADA regulations, the DOJ rejected the idea of requiring any certification or licensing requirements for individuals with service animals.[195] The DOJ acknowledged commenters had proposed specific behavior and training requirements, including options that were detailed and lengthy.[196] Some commenters argued "that without such standards, the public has no way to differentiate between untrained pets and service animals."[197] However, the DOJ concluded that the provisions it put in place regarding the obligations of the handler (to control the service animal) and the ability to exclude the animal (if not under the control of the handler) were sufficient to address the issue.[198]

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[192] H.R. 2225 at § 2(i), (j).

[193] Hurley v. Loma Linda Univ. Med. Ctr., No. CV12-5688 DSF (OPx), 2014 WL 580202, at *8 (C.D. Cal. Feb. 12, 2014) (stating "there is widespread fraud regarding service animals"); *see* Huss, *Conundrum*, *supra* note 37, at 1588 (discussing concerns of business and persons with disabilities). A related issue concerns entities who sell dogs that are purported to be trained as a service animal but who do not perform the necessary tasks or have other behavioral issues. *E.g.*, Andrea McCarren, *Families Pay Thousands for Service Dogs that They Say Misbehave in Public*, WUSA9 (Nov. 20, 2017), http://www.wusa9.com/life/animals/service-dog/families-pay-thousands-for-service-dogs-they-say-misbehave-in-public/490556464 (reporting on complaints about an organization providing diabetic alert dogs). *See supra* note 201 and accompanying text (discussing some of the reasons why people may believe their dog fulfills the definition set forth in the ADA regulations).

[194] *See* 28 C.F.R. § 35.136(f); 28 C.F.R. § 36.302(c)(6) (providing entities may only ask whether "the animal is required because of a disability and what work or task the animal has been trained to perform[.]").

[195] Title II Regulation Guidance, *supra* note 37, at 56,197–98; Title III Regulation Guidance, *supra* note 37, at 56,271–72.

[196] Title II Regulation Guidance, *supra* note 37, at 56,198; Title III Regulation Guidance, *supra* note 37, at 56,272.

[197] Title II Regulation Guidance, *supra* note 37, at 56,198; Title III Regulation Guidance, *supra* note 37, at 56,272.

[198] Title II Regulation Guidance, *supra* note 37, at 56,198; Title III Regulation Guidance, *supra* note 37, at 56,272. The DOJ was concerned that a "training and certification

Businesses are concerned about the possibility of harm being caused by purported service animals who are untrained, and persons with disabilities are reporting more problems when utilizing their service animals.[199] It is difficult to determine the extent to which there is misrepresentation and why it occurs.[200] For example, when one professor considered the various reasons individuals might believe their animals should be allowed access, she listed the following:

> A misunderstanding of the task or work requirement; an incorrect definition of disability; a confusion of laws; the belief that dogs coming from a service dog school or trainer always meet the ADA standards; and the mistaken beliefs of medical personnel who may 'prescribe' a service dog without a complete understanding of relevant service dog laws.[201]

Although the ADA and its regulations do not contain penalties for persons who may misrepresent the status of an animal,[202] several states have enacted statutory provisions making it a criminal offense if an

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requirement would increase the expense of acquiring a service animal and might limit access to service animals for individuals with limited financial resources." Title II Regulation Guidance, *supra* note 37, at 56,198; Title III Regulation Guidance, *supra* note 37, at 56,272. The DOJ raised the argument that providing for a certification process "would not serve the full array of individuals with disabilities who use service animals, since individuals with disabilities may be capable of training, and some have trained, their service animal to perform tasks or do work to accommodate their disability." Title II Regulation Guidance, *supra* note 37, at 56,198; Title III Regulation Guidance, *supra* note 37, at 56,272.

[199] CALIFORNIA BACKGROUND PAPER, *supra* note 2, at 12 (discussing concerns of businesses and individuals with disabilities). Members of the public may confront people with service animals. In a case where an individual was terminated from membership in a grocery store co-op, the behavior by the individual that led to the action was the woman's repeated confrontations over animals in the store. *See* Taft v. Central Co-Op, No. 73917-4-I (Ct. App. WA Dec. 27, 2016). The woman questioned employees about whether dogs in the store were service animals and was asked not to approach staff members about the issue again. *Id.* at *1. A complaint was made by another shopper about a woman "angrily confronting him about his service animal," although the woman denied the incident occurred. *Id.* at *1, *5.

[200] Tiffany Lee, *Criminalizing Fake Service Dogs: Helping or Hurting Legitimate Handlers?*, 23 ANIMAL L. 325, 329 (2017) (discussing issue of misrepresentation and state laws addressing it). *See also* Regina Schoenfel-Tacher, *Public Perceptions of Service Dogs, Emotional Support Dogs, and Therapy Dogs*, 14 INT'L J. ENVIRON. RES. AND PUB. HEALTH 642 (2017) (reporting on survey finding the majority of people are not taking advantage of the laws allowing for access for persons with disabilities using assistance animals).

[201] *Id.* at 329–30. Professor Lee analyzed each of the reasons there may be a misunderstanding. *Id.* at 330–37.

[202] *See* 42 U.S.C. § 12101 *et seq.* (2012); 28 C.F.R. § 35.101 *et seq.*; 28 C.F.R. § 36.1010 *et seq.*,. *But see* Huss, *Conundrum*, *supra* note 37, at n.142 (discussing the possible but unlikely use of a general fraud provision in the federal code to address the issue).

individual misrepresents the status of an animal as a service animal.[203] States may focus on misrepresentation of the individual by words or actions, or the outward appearance of the purported service animal.[204]

It is difficult to determine the effectiveness of these state statutes.[205] One court has even questioned whether it would be possible to determine a violation of its state law given the restrictions on inquiries in the ADA.[206] However, even if enforcement is rare, it is possible such state laws may deter intentional misrepresentation.[207]

Commentators have proposed alternatives to state misrepresentation provisions.[208] One suggestion is to amend the ADA to allow for entities to check identification issued by states with certification and licensing programs.[209] Another recommendation is to increase education about

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[203] *E.g.*, CAL. PENAL CODE § 365.7 (2018) (knowingly and fraudulently misrepresenting self as a owner or trainer of service dog is a misdemeanor); MICH. CODE §§ 752.62, 752.63 (2016) (providing that a person falsely representing that "he or she is in possession of a service animal, or a service animal in training, in any public place" is guilty of a misdemeanor); *see also* Huss, *Conundrum*, *supra* note 37, at 1589–90 (discussing state statutes); Randy Lilleston, *States Crack Down on 'Fake Service Animals' Laws Aim to Stop Owners From Listing Pets as Working Dogs*, AARP, https://www.aarp.org/home-family/friends-family/info-2017/law-service-animals-fd.html (last visited Jan. 25, 2018) (reporting on state laws including proposed legislation in Massachusetts addressing the issue); Michael Ollove, *Several States Crack Down 'Fake' Service Animals*, USA TODAY (Oct. 29, 2017), https://www.usatoday.com/story/news/2017/10/29/several-states-crack-down-fake-service-animals/807676001/ (discussing concerns over fake service animals and how states are responding).

[204] *E.g.*, N.C. GEN. STAT. § 168-4.5 (2017) (providing that it is "unlawful to disguise an animal as a service animal or service animal in training."); UTAH CODE § 62A-5b-106 (2017) (intentionally and knowingly falsely representing to another person that an animal is a service animal is a class B misdemeanor); *see also* Huss, *Conundrum*, *supra* note 37, at 1589–90 (discussing state statutes).

[205] Huss, *Conundrum*, *supra* note 37, at n.150 (discussing the lack of case law utilizing such state statutes); Lee, *supra* note 200, at 341–50 (analyzing potential issues if such laws are enforced, and stating, "[i]t is too early to determine the frequency with which people may be arrested, tried, and possibly convicted under the increasing number of service animal fraud laws."). Professor Lee cites to the small number of reported cases based on state laws criminalizing the denial of access to service animal handlers in considering the likelihood of prosecution of these misrepresentation laws. *Id.*

[206] Hurley v. Loma Linda Univ. Med. Ctr., No. CV12-5688, 2014 WL 580202, at *8 (C.D. Cal. Feb. 12, 2014) (discussing the California law and difficulty of enforcement).

[207] Sande L. Buhai, *Preventing the Abuse of Service Animal Regulations*, 19 N.Y.U. J. LEGIS. & PUB. POL'Y 771, 796 (2016) (suggesting the deterrent effect of these state statutes).

[208] *Id.*; Lee, *supra* note 200, at 351–54.

[209] Buhai, *supra* note 207, at 796. *But see supra*, notes 195–98 and accompanying text (discussing the DOJ's rejection of certification and licensing requirements in the recent revision of the ADA regulations).

coverage of the current laws along with modifications of state laws so that such provisions use terminology consistent with the ADA.[210]

III. ANIMAL-ASSISTED INTERVENTIONS

In addition to service animals, other animals may be allowed in healthcare facilities through the adoption of programs intended to benefit patients.[211]

A. Definitions of Animal-Assisted Interventions

Animal-assisted interventions (AAI) is a broad term encompassing animal-assisted activities (AAA), animal-assisted education (AAE), and animal-assisted therapy (AAT).[212] Generally these activities are carried out at medical facilities such as hospitals; however, it is possible to incorporate them into medical professionals' offices.[213] AAA, often structured as visiting programs utilizing volunteers with their companion animals, are very common.[214] AAA does not need to be structured to target a specific

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[210] Lee, *supra* note 200, at 351–54. Professor Lee also recommends that revisions be made to definitions at the federal level to ensure consistency of definitions. *Id.* at 353–54.

[211] *See infra* notes 212–32 and accompanying text (discussing animal-assisted intervention programs).

[212] INTERNATIONAL ASS'N OF HUMAN-ANIMAL INTERACTION ORGS, IAHAIO WHITE PAPER 2014, THE IAHAIO DEFINITIONS FOR ANIMAL ASSISTED INTERVENTIONS AND GUIDELINES FOR WELLNESS OF ANIMALS INVOLVED 5 (2014), http://iahaio.org/wp/wp-content/uploads/2017/05/iahaio-white-paper-final-nov-24-2014.pdf [hereinafter IAHAIO WHITE PAPER]. According to IAHAIO, AAI is "a goal oriented and structured intervention that intentionally includes or incorporates animals in health, education and human service (e.g., social work) for the purpose of therapeutic gains in humans." *Id. See also Animal-Assisted Interventions: Definitions*, AM. VETERINARY MED. ASS'N, https://www.avma.org/KB/Policies/Pages/Animal-Assisted-Interventions-Definitions.aspx (last visited Jan. 25, 2018) [hereinafter AVMA Definitions] (setting forth definitions). The DoD refers to programs involving animals as Human-Animal Bond (HAB) programs. DOD HUMAN-ANIMAL BOND, *supra* note 189.

[213] Nickolas Nahm, *Therapy Dogs in the Emergency Department,* 13 W. J. EMERGENCY MED. 363, 364 (2012) (reporting on a study of AAI in an emergency department, given these programs are uncommon in this part of hospitals). *See also* Beth Reese Cravey, *Jacksonville Beach Dental Therapy Dog "Better than Laughing Gas,"* FLORIDA TIMES-UNION (Nov. 28, 2017), http://jacksonville.com/news/metro/2017-11-28/jacksonville-beach-dental-therapy-dog-better-laughing-gas (describing use of a dog who received therapy dog training and is available to calm patients). This article reports that the American Dental Association did not have any data about "how many dentists have therapy dogs or whether it is a trend in dentistry." *Id.*

[214] IAHAIO WHITE PAPER, *supra* note 212, at 5-6. Note IAHAIO's definition of AAA

medical condition.[215] AAE or animal-assisted pedagogy is delivered by an educational professional and is not generally relevant in healthcare environments.[216] AAT is utilized by professionals and can be part of a treatment process or program.[217]

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would require more formalities than some of the pet visitation programs in some healthcare facilities. "AAA is a planned and goal oriented informal interaction and visitation conducted by the human-animal team for motivational, educational and recreational purposes. Human-animal teams must have received at least introductory training, preparation and assessment to participate in informal visitations." *Id. See also Hospitals (General)*, THERAPY DOGS INT'L, http://www.tdi-dog.org/OurPrograms.aspx?Page=Hospitals+(General) (last visited Jan. 25, 2018) (discussing visitation programs and benefits to patients, visitors and staff).

[215] IAHAIO WHITE PAPER, *supra* note 212, at 5. If a human-animal team worked formally and directly with a healthcare provider on specific documentable goals, they would be participating in AAT. *Id.* at 5. In the VA Regulations, AAA is defined as involving:

> animals in activities to provide patients with casual opportunities for motivational, educational, recreational, and/or therapeutic benefits. AAA is not a goal-directed clinical intervention that must be provided or facilitated by a VA therapist or clinician, and therefore is not necessarily incorporated into the treatment regimen of a patient or documented in the patient's medical record as treatment.

38 C.F.R. § 1.218(a)(11)(ix)(D). The DoD Technical Bulletin provides examples of AAA including:

> "[M]eet and greet" activities during which pets and their handlers visit people on a scheduled or spontaneous basis, and programs that permit family members or friends of a facility's residents to bring their own pet or the resident's pet into the facility for a visit. The same AAA may be repeated with many individuals or conducted in groups. Unlike traditional therapy programs, AAA programs are not tailored to a particular person or medical condition.

DOD HUMAN-ANIMAL BOND, *supra* note 189, at 7–8. The DoD technical bulletin also provides the AAA example of "[a]nimal 'walkabouts,' during which Soldiers' interaction with medical staff is increased. *Id.* at 8. In this manner, the animal facilitates communication and acts as a bridge between Soldiers and medical staff." *Id. See also* CYNTHIA K. CHANDLER, ANIMAL ASSISTED THERAPY IN COUNSELING 5 (Taylor & Francis Group ed., 2d ed. 2005) (distinguishing between AAA and AAT). Note that there are also programs to provide pet visitation to staff at hospitals. Lindsey Alexander, *To De-Stress Nurses, Just Add Puppies*, MEDCITYNEWS.COM (Nov. 2, 2013), https://medcitynews.com/2013/11/wow-week-caregivers-need-care-puppies-give-clinicians-respite-compassion-burnout/ (reporting on a Pet the Pooch program for hospital staff); Lindsay Tanner, *4-Legged Healers Soothe Hospital's Stressed-Out Docs, Nurses*, CHI. TRIB. (Mar. 23, 2016), http://www.chicagotribune.com/news/local/breaking/ct-4-legged-healers-soothe-hospital-s-stressed-out-docs-nurses-20160323-story.html (reporting on Pet Pause program and study determining whether there is a tangible impact on employee stress). *See also* Sandra V. Barker, *Measuring Stress and Immune Response in Healthcare Professionals Following Interaction with a Therapy Dog: A Pilot Study*, 96 PSYCHOL. REP. 713 (2005) (reporting on study on healthcare professionals). This Article focuses on the use of AAI with patients.

[216] IAHAIO WHITE PAPER, *supra* note 212, at 5. An example of AAE would be a human-animal team visiting a classroom to promote responsible pet ownership or a dog-assisted

Although concerns have been raised about the empirical research and effectiveness of AAI, it is common to have such programs in hospitals and other healthcare facilities.[218] Research analyzing these programs often

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reading program. *Id.*

[217] *Id.* IAHAIO defines AAT as:

> Animal Assisted Therapy is a goal oriented, planned and structured therapeutic intervention directed and/or delivered by health, education and human service professionals. Intervention progress is measured and included in professional documentation. AAT is delivered and/or directed by a formally trained (with active licensure, degree or equivalent) professional with expertise within the scope of the professionals' practice. AAT focuses on enhancing physical, cognitive, behavioral and/or socio-emotional functioning of the particular human recipient.

Id. The VA Regulations define AAT as:

> [A] goal-directed clinical intervention as provided or facilitated by a VA therapist or VA clinician, that incorporates the use of an animal into the treatment regimen of a patient. Any AAT present on VHA property must facilitate achievement of patient-specific treatment goals, as documented in the patient's treatment plan.

38 C.F.R. § 1.218(a)(11)(ix)(C). The DoD Technical Bulletin describes AAT as follows:

> Animals have found a permanent place in assisting human healthcare professionals. The use of animals to serve as "co-therapists" has become an accepted treatment and recovery modality . . . Animals also serve as catalysts to social interaction and bridges to interpersonal communication and attachment. Animals can assist in stress relief through tactile, auditory, and visual components of stimulation. Animal utilization in facilitating intake interviews and individual and/or group therapy sessions is becoming an increasingly acceptable activity in MTF [Military Treatment Facility] behavioral health services. The programs are governed by standards, monitored regularly, and staffed by appropriately trained personnel. Examples of AAT programs include the following: a. Psychiatry: A psychiatrist uses a dog in the office to help facilitate conversations with patients.

DoD HUMAN-ANIMAL BOND, *supra* note 189, at 8. AAT is very widespread and may be reimbursed by health insurance companies. CHANDLER, *supra* note 215, at 12. As discussed below, AAT can be used in a wide range of therapies. *See generally* Aubrey H. Fine et al., *Forward Thinking: The Evolving Field of Human-Animal Interactions, in* HANDBOOK ON ANIMAL-ASSISTED THERAPY: THEORETICAL FOUNDATIONS AND GUIDELINES FOR ANIMAL-ASSISTED INTERVENTIONS 21–23 (Aubrey H. Fine ed., 4th ed. 2015) (providing several examples of the use of AAI).

[218] Michael W. Firmin et al., *Qualitative Perspectives on an Animal-Assisted Therapy Program*, 22 ALT. & COMPLEMENTARY THERAPIES 204, 205 (2016) (reporting on a study of AAT providers and discussing how AAI has become a practice throughout health services though not always accepted by medical professionals); Harold Herzog, *The Research Challenge: Threats to the Validity of Animal-Assisted Therapy Studies and Suggestions for Improvement, in* HANDBOOK ON ANIMAL-ASSISTED THERAPY FOUNDATIONS AND GUIDELINES FOR ANIMAL-ASSISTED INTERVENTIONS 402, 402–06 (Aubrey H. Fine ed., 4th ed. 2015) (discussing issues with research and signs research is improving); Hiroharu Kamioka, *Effectiveness of Animal-Assisted Therapy: A Systematic Review of Randomized Controlled Trials*, 22 COMPLEMENTARY THERAPIES IN MED. 371, 387 (2014) (concluding AAT may be an effective treatment for certain mental or behavioral disorders in an environment where

focuses on the use of AAI in a particular population (such as children),[219] particular medical environment (such as post-surgical),[220] or both (children in dental offices).[221] Many programs in healthcare environments utilize dogs, but cats may be used for therapeutic purposes as well. However, as discussed below, there are unique challenges when felines are involved in a therapeutic activity.[222]

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people like animals, but making recommendations for future research); Martina Lundqvist et al., *Patient Benefit of Dog-Assisted Interventions in Health Care: A Systematic Review*, 17 BMC COMPLEMENTARY & ALTERNATIVE MED. 358, 367 (2017) (analyzing studies reporting on the use of animals in healthcare); James Serpell et al., *Current Challenges to Research on Animal-Assisted Interventions*, 21 APPLIED DEVELOPMENTAL SCI. 223, 229–30 (2017) (discussing issues with clinical studies of AAI).

[219] *E.g.*, Sandra M. Branson et al., *Effects of Animal-Assisted Activities on Biobehavioral Stress Responses in Hospitalized Children: A Randomized Controlled Study*, 36 J. PEDIATRIC NURSING 84 (2017) (reporting on study assessing the effectiveness of AAA on biobehavioral stress responses in children who were hospitalized); Jessica Chubak et al., *Pilot Study of Therapy Dog Visits for Inpatient Youth With Cancer*, 34 J. PEDIATRIC ONCOLOGY NURSING 331 (2017) (reporting on study with pediatric oncology patients); Anna Tielsch Goddard & Mary Jo Gilmer, *The Role and Impact of Animals with Pediatric Patients*, 41 PEDIATRIC NURSING 65 (Mar–Apr. 2015) (discussing the use of AAI in the pediatric patient population).

[220] *E.g.*, Carl M. Harper et al., *Can Therapy Dogs Improve Pain and Satisfaction After Total Joint Arthroplasty? A Randomized Controlled Trial*, 473 CLINICAL ORTHOPAEDICS & RELATED RES. 372, 372 (2015) (reporting on a trial finding "a positive effect on patients' pain level and satisfaction with hospital stay after total joint replacement" when therapy dogs were used); Andrea Schmitz et al., *Animal-Assisted Therapy at a University Centre for Palliative Medicine–A Qualitative Content Analysis of Patient Records*, 16 BMC PALLIATIVE CARE 50 (2017) (reporting on therapy at a palliative care ward).

[221] *E.g.*, LeAnn Havener et al., *The Effects of a Companion Animal on Distress in Children Undergoing Dental Procedures*, 24 ISSUES IN COMPREHENSIVE PEDIATRIC NURSING 137 (2001) (discussing use of animal as a distraction intervention).

[222] *See* Katarzyna Tomasqewska et al., *Feline-Assisted Therapy: Integrating Contact with Cats Into Treatment Plans*, 24 POLISH ANNUALS MED. 283, 285–86 (2017) (reporting on feline programs in hospitals); *see also infra* notes 281–88 and accompanying text (discussing the DoD's evaluation protocol for cats used in HAB programs). *See also* Rekha Murthy et al., *Animals in Healthcare Facilities: Recommendations to Minimize Potential Risks*, 36 INFECTION CONTROL & HOSP. EPIDEMIOLOGY 495, 502 (2015) (recommending that only dogs be used in programs because cats "cannot be trained to reliably provide safe interactions with patients in the healthcare setting"). Note that other animals may be used in AAI programs, but are less common. *See Learn the Pet Partners Difference*, PET PARTNERS, https://petpartners.org/learn/pet-partners-difference/ (last visited Jan. 25, 2018) (reporting that the organization registers nine different species of animals); Kelli Bender, *Therapy Pigs Thunder and Bolt are Happy to Trade Belly Scratches and Hugs for Smiles*, PEOPLE, (Jan. 23, 2018), http://people.com/pets/therapy-pigs-thunder-and-bolt-tampa-hospital/ (reporting on therapy pigs who visit a hospital); Meghan Holohan, *Meet Petie, A Therapy Pony, Who Brings Joy to Sick Kids in Hospitals*, TODAY (Nov. 17, 2016),

There are two other types of programs in which animals may be at a healthcare facility.[223] The first is a "Resident Animal" or "Facility Animal" program. The American Veterinary Medical Association (AVMA) defines AAI resident animals as animals who live:

> . . . in a facility full time, are owned by the facility, and are cared for by staff, volunteers, and residents. Some RA may be formally included in facility activity and therapy schedules after proper screening and training. Others may participate in spontaneous or planned interactions with facility residents and staff.[224]

Although it appears uncommon to have a facility animal at a community-based hospital, because the Walter Reed National Military Medical Center incorporates facility dogs at its facility, this Article will provide limited coverage of issues relating to those animals.[225]

The second program, where a patient's own pet is allowed to visit, has been established at a limited number of hospitals and is referred to as a personal or family pet program.[226] The hospitals that allow for such visits

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https://www.today.com/parents/petie-pony-helps-sick-children-recover-illness-t105108 (reporting on a pony who visits a hospital); Murthy et al., *supra* note 222, at 502 (recommending the exclusion of animals other than dogs from AAI programs in healthcare facilities).

[223] *See infra* notes 226–32 and accompanying text (discussing personal pet programs and facility or resident animal programs).

[224] AVMA Definitions, *supra* note 212.

[225] Lucy S., *Meet Walter Reed National Military Medical Center's Canine Heros*, SITREP (May 31, 2016), https://military.id.me/dogs/walter-reed-canine-heroes/ (describing dogs acting as facility dogs at Walter Reed National Military Medical Center). *See infra* notes 319–21 and accompanying text (discussing special rules regarding facility animal programs). *See also* Terance Garnier, *Naval Base Uses Unique Strategy to Combat Suicides, Stress: A Dog*, FOX NEWS (Jan. 17, 2018), http://www.foxnews.com/health/2018/01/17/naval-base-uses-unique-strategy-to-combat-suicides-stress-dog.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+foxnews%2Fhealth+%28Internal+-+Health+-+Text%29%20 (reporting on a dog used at a naval clinic who attends to patients exhibiting signs of stress).

[226] Judith Graham, *When Best Friends Can Visit*, N.Y. TIMES (Apr. 10, 2013), https://newoldage.blogs.nytimes.com/2013/04/10/when-best-friends-can-visit/ (reporting on pet policies); Maureen McKinney, *Why More Hospitals Are Letting Pets Visit Their Sick Owners*, VETSTREET (Mar. 20, 2014), http://www.vetstreet.com/our-pet-experts/why-more-hospitals-are-letting-pets-visit-their-sick-owners (discussing visitation programs and expectation that the number of programs will increase); Bonnie Miller Rubin, *Pets Get Visiting Hours at Hospital*, CHI. TRIB. (Feb. 19, 2013), http://www.chicagotribune.com/lifestyles/health/ct-met-hospital-pets-0218-20130219-story.html (reporting on a new policy at Rush Hospital); Fatimah Waseem, *Hospital Helps Kids Through Healing Paws Program*, USA TODAY (July 9, 2013), https://www.usatoday.com/story/news/nation/2013/07/09/healing-paws-young-

generally have a process to request for a patient's dog or cat to visit.[227] Pets may be restricted from visiting patients unless a physician has written an order allowing the pet to visit.[228] Prior to the visit, a veterinary health certificate and release from responsibility waiver generally must also be on file with the hospital.[229] Furthermore, there is a set procedure to transport the pet to and from the patient's room and guidance to try to ensure the pet does not have a toileting issue in the hospital or cause other hygiene issues.[230]

An alternative to having a pet visit a patient's room is to establish an area on the hospital campus to provide for visitation of family pets.[231] Some advantages to having a separate center with designated outside access include less risk of any substantial impact on other patients or staff as well as the possibility that the cost and other requirements for the pet to visit could be minimized.[232]

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patients/2416445/
(discussing family pet visitation programs); *Family Dog Visits*, WOLFSON CHILDREN'S HOSPITAL, http://www.wolfsonchildrens.org/programs-services/support/Pages/visits.aspx (last visited Jan. 25, 2018) (setting forth process for family dogs to visit patients).

[227] *See, e.g.*, *Furry Friends Family Pet Dog and Cat Visitation Program, A Guide for Families*, UNIV. OF IOWA SNEAD FAMILY CHILDREN'S HOSP., https://uihc.org/sites/default/files/family_pet_visitation_brochure.pdf (last visited Jan. 25, 2018) [hereinafter *Iowa Family Pet Visitation*] (setting forth the process for a dog or cat visiting a patient); *Personal Pet Visitation*, UNIV. OF MARYLAND MED. CTR., http://www.umm.edu/patients/pastoral/pet-visitation (last visited Jan. 25, 2018) [hereinafter *Maryland Personal Pet Visitation*] (setting forth the process to have a pet visit a patient).

[228] *See Maryland Personal Pet Visitation*, *supra* note 227. *But see Iowa Family Pet Visitation*, *supra* note 227.

[229] *See Maryland Personal Pet Visitation*, *supra* note 227. *But see Iowa Family Pet Visitation*, *supra* note 227.

[230] *Iowa Family Pet Visitation*, *supra* note 227 (setting forth process to minimize the contact of the pet with other people); *Maryland Personal Pet Visitation*, *supra* note 227 (discussing the process of grooming, feeding, and toileting the animal prior to the visit and minimizing the contact of the pet on the bed or with other people at the facility). *See infra* notes 304–26 and accompanying text (discussing risks if an entity allows pet visitation).

[231] *CancerFree KIDS & Impact 100 Family Pet Center*, CINCINNATI CHILDREN'S HOSP., https://www.cincinnatichildrens.org/patients/resources/pet-center (last visited Jan. 25, 2018) (setting forth the process for children who are staying at the facility for five days or longer to visit with their own family pets). As with other personal pet visitation programs, the hospital has a process in place before a patient is allowed to visit with an animal. *Id. See also Purina Family Pet Center*, ST. LOUIS CHILDREN'S HOSP., http://www.stlouischildrens.org/our-services/family-services/child-life-services/pet-therapy/purina-family-pet-center (last visited Jan. 25, 2018) (stating the center, available by appointment only, "is only the third of its kind in the United States and fourth in the world").

[232] Renee Cocchi, *Some Hospitals Are Expanding Visitation Policies to Pets*, HEALTHCARE BUSINESS & TECHNOLOGY.COM (Mar. 12, 2013),

B. Animal-Assisted Interventions and the Law

The decision about whether to allow AAI at a healthcare facility is generally within the discretion of the entity's management, subject to any state law or regulations.[233] As discussed above, the ADA specifically excludes from the definition of the type of work or tasks supporting the status of an animal as a service animal merely providing "emotional support, well-being, comfort, or companionship."[234] Thus under federal law, there are no rights of access for handlers of animals used for AAI.[235]

A few states have provided for rights of access for certain handlers of therapy animals.[236] In Kansas, qualified handlers of professional therapy dogs have the right to access public transportation and other public establishments, similar to persons with disabilities utilizing service animals.[237] The therapy dog handler is required to provide identification

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http://www.healthcarebusinesstech.com/visiting-hours-for-pets/ (discussing pet visitation programs and advantages of designated facilities).

[233] Rebecca J. Huss, *Legal and Policy Issues for Animal Assisted Interventions with Special Populations*, 21 APPLIED DEV. SCI. 217, 220 (2017) [hereinafter Huss, *Legal Policy*] (discussing the lack of a federal law requiring public accommodations to allow therapy animals). In VA facilities, the facility head or designee *may* (italics added) permit non-service animals on VA Property for AAA and AAT "when the presence of such animals would not compromise patient care, patient safety or infection control standards." 38 C.F.R. § 1.218(a)(11)(ix). An example of a state with regulations governing AAT is Illinois. IL. ADMIN. CODE Tit. 77 § 250.890 (providing regulations including the establishment of policies governing infection control in the section relating to hospital licensing).

[234] 28 C.F.R. § 35.104; 28 C.F.R. § 36.104.

[235] Huss, *Legal Policy*, *supra* note 233, at 220. *See also* James T. Mills & Arthur F. Yeager, *Definitions of Animals Used in Healthcare Settings*, U.S. ARMY MED. DEP'T J., 12, 14 (April–June 2012) (discussing animals used in healthcare setting and providing a chart of types of animals and their uses).

[236] *See infra* notes 237–45 and accompanying text (discussing Kansas and Rhode Island laws). It is important to note that certain state statutes use "therapy animal" in their definition of animals that are partnered with a person with a disability. For example, New Mexico law defines emotional support animal, comfort animal, and therapy animal all as: "an animal selected to accompany an individual with a disability that does not work or perform tasks . . . and does not accompany at all times an individual with a disability." N.M. STAT. § 28-11-2 (2018). Some states have laws that encourage the use of therapy animals as part of crisis response teams. Huss, *Legal Policy*, *supra* note 233, at 220.

[237] KAN. STAT. §§ 39-1110, 39-1111 (2017). Note that Missouri law defines professional therapy dog as a dog "selected, trained, and tested to provide specific physical therapeutic functions, under the direction and control of a qualified handler who works with the dog as a team as part of the handler's occupation or profession." MO. STAT. 209.200(e) (2017). Dogs used by volunteers in visitation therapy, regardless of whether they are certified, are not professional therapy dogs. *Id.* Although "professional therapy dog" appears to part of the definition of service dog for purposes of providing access for persons with disabilities, the

meeting certain statutory requirements if requested by the establishment.[238] If the therapy dog causes any damage to the facility, the handler may be found liable.[239]

In Rhode Island, "family therapy pets,"—including dogs, cats, and rabbits—providing pet-assisted therapy treatment and education, are granted the same privileges of access that are provided to persons with disabilities using personal assistance animals.[240] In order to qualify for this right of access, the pet-assisted therapy facilitator and pet have to meet certain criteria.[241] In connection with healthcare, the facilitation must occur within a predetermined medical setting with the intervention "individually planned, goal-oriented, and treatment based."[242] The facilitator must follow professional guidelines and a set code of ethics.[243] The animal must meet certain veterinary, temperament, and training criteria.[244] The rights of access only apply when the animal is traveling to or participating in a program and the facilitator is responsible for the control and safety of the animal.[245]

The primary legal issue raised in connection with AAI is the possibility of civil tort liability in the event that an individual is injured during participation in a program.[246] Tort liability for injuries caused by animals

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right of access is limited to a person with a disability utilizing such a dog. MO. STAT. 209.150 (2017) (providing rights to persons with disabilities). Missouri's statutory provisions also includes rights of access for trainers of service dogs; however, the definition of "service dog" in that provision is restricted to a dog specially trained to assist a person with a disability by performing specific tasks. MO. STAT. §§ 209-150 (4), 209-152 (2017).

[238] KAN. STAT. § 39-1111 (2017) (setting forth the documentation required for the identification, containing identifying information including a picture or photographic likeness of the dog).

[239] KAN. STAT. § 39-1110 (2017).

[240] R.I. STAT. § 40-9.1-5 (2017).

[241] *Id.*

[242] R.I. STAT. § 40-9.1-5(b) (2017).

[243] R.I. STAT. § 40-9.1-5(c) (2017). This is to ensure "that the interaction of the family therapy pet and client remains beneficial and strives to enhance the quality of life through this animal-human bond." *Id.* The facilitator must also maintain an insurance policy covering personal injury or property damage relating to the active participation in a program. R.I. STAT. § 40-9.1-5(f) (2017).

[244] R.I. STAT. § 40-9.1-5(d) (2017) (setting forth the criteria for animals including immunizations to facilitate safe and effective interactions).

[245] R.I. STAT. § 40-9.1-5(f) (2017).

[246] Rebecca J. Huss & Aubrey H. Fine, *Legal and Policy Issues for Classrooms with Animals, in* HOW ANIMALS HELP STUDENTS LEARN: RESEARCH AND PRACTICE FOR EDUCATORS AND MENTAL-HEALTH PROFESSIONALS 27, 27 (Nancy R. Gee et al eds., 2017). In addition to possible civil litigation, it is common for states to require reports to be filed with either local or state authorities detailing the incident. *Id.* at 29–30.

will depend on the relevant state law and, given the variety of approaches taken by the states, a full discussion of potential liability is beyond the scope of this Article.[247]

There are some general issues regarding liability for injuries caused by animals found in many state laws.[248] It is common for states to have a statutory provision addressing injuries caused by animals.[249] Statutes imposing strict liability for the owners[250] of animals causing injuries have been adopted in over half the states.[251]

Other state statutes codify a concept referred to as the "one bite rule," which developed through common law.[252] These statutes generally do not require the animal (usually a dog) to have bitten someone; it is only necessary to prove that the owner knows, or should have known, the animal was likely to cause an injury.[253] These statutes contain exceptions and allow for affirmative defenses.[254] However, given the nature of a well-organized AAI as a supervised activity, it is unlikely that an exception or affirmative defense would be applicable.[255]

Even if recovery is not possible under a statutory provision, an individual may have the option to sue based on a theory of common law negligence.[256] Successful recovery of damages in a common law negligence action

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[247] *See generally* MARY J. RANDOLPH, EVERY DOG'S LEGAL GUIDE: A MUST-HAVE BOOK FOR YOUR OWNER 207–30 (7th ed. 2012) (analyzing state provisions regarding injuries caused by dogs); STUART M. SPEISER ET AL., THE AMERICAN LAW OF TORTS §§ 21:31, 21:50 (1990 & Supp. 2011) (discussing injuries caused by animals generally and liability for injuries caused by dogs). Practitioners are encouraged to research the applicable state law to determine the risk for the particular AAI. *See infra* notes 249–55 and accompanying text (discussing the possibility of a relevant statutory provision in addition to common law covering the issue).

[248] *See, e.g.*, 2 DAN B. DOBBS, THE LAW OF TORTS § 439 (2nd ed. 2011) (discussing liability for injuries by animals).

[249] *See* RESTATEMENT (THIRD) OF TORTS: PHYSICAL & EMOTION HARM § 23 (Am. Law Inst. 2010).

[250] It is not necessary to be the legal owner of the animal in all states. RANDOLPH, *supra* note 247, at 226–28. The law has developed to provide for "keepers," "possessors," or "harborers" of dogs to be liable for damages. *Id.* Control over the animal generally is the key to determining liability for persons other than the legal owner of the animal. *Id.*

[251] RANDOLPH, *supra* note 247, at 208.

[252] *Id.* at 213–16.

[253] *Id.* (describing factors a court may consider to determine whether a person knew or should have known a dog was likely to cause an injury).

[254] *Id.* at 219–24. For example, there may not be liability if the individual injured provoked the dog, was trespassing, or was breaking the law.

[255] *Id.*

[256] RESTATEMENT (THIRD) OF TORTS: PHYSICAL & EMOTION HARM § 23 (Am. Law Inst. 2010).

requires proof that, under the circumstances, the injury was foreseeable and the individual owner of the animal did not exercise reasonable care.[257]

Because of the possibility of liability, practitioners of AAI are encouraged to ensure that there is adequate insurance coverage in the event of any injury.[258] However, the best way to avoid liability is to have policies and procedures in place to minimize the possibility of an injury.[259]

IV. MITIGATION OF RISKS

To avoid legal liability and protect patients and animals, it is important to recognize and mitigate risks associated with the inclusion of animals in healthcare environments.[260] This section highlights some of the concerns associated with interactions with animals in these facilities.[261]

A. Injuries

1. Injuries to Humans

As discussed above, there are always concerns a service animal or therapy animal may injure a human.[262] Although a service animal, by its

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[257] *Id.*

[258] *Guidelines for Animal-Assisted Activity, Animal-Assisted Therapy and Resident Animal Programs*, AM. VETERINARY MED. ASS'N (Apr. 1999, rev. Apr. 2006, aff'd Apr. 2011), https://ebusiness.avma.org/files/productdownloads/guidelines_AAA.pdf [hereinafter AVMA Guidelines for AAA] (discussing insurance coverage, including the possibility that an entity's insurance policy may cover the activity). Note that if a handler's animal is certified by an outside entity, the handler may be eligible for insurance coverage through the entity. *See, e.g.*, *Information for Facilities*, THERAPY DOGS INTERNATIONAL, http://www.tdi-dog.org/About.aspx?Page=Information+for+Facilities (last visited Jan. 25, 2018) (stating "TDI provides Primary Liability Insurance to Associate Members while visiting as volunteers"); *Why Choose Pet Partners?*, PET PARTNERS, https://petpartners.org/learn/pet-partners-at-your-facility/ (last visited Jan. 25, 2018) (listing as an advantage the two million dollar comprehensive general liability policy in place for all volunteers).

[259] *See infra* notes 260–350 and accompanying text (discussing the mitigation of risks).

[260] *See infra* notes 262–350 and accompanying text (discussing risks).

[261] *See* Huss, *Aging*, *supra* note 11, at 530–49 (discussing some of the risks associated with companion animals in the lives of older adults, many of which are relevant in a healthcare environment).

[262] *Supra* notes 246–57 and accompanying text (discussing liability concerns). The risk of animal bites generally is beyond the scope of this Article. *See generally* Martha B. Fulford, *Pet Bites, in* COMPANION ANIMAL ZOONOSES 311–12 (J. Scott Weese & Martha B. Fulford eds. 2011) (discussing dog and cat bites generally and prevention); Huss, *Aging*, *supra* note 11, at 530–32 (discussing dog and cat bites in the general population); Jerry Jacob & Bennett Lorber, *Diseases Transmitted by Man's Best Friend: The Dog, in*

very definition, has some training, it is impossible to ensure that under no circumstance will a service animal or therapy animal injure a person.[263] The proper selection of an animal based on the animal's natural behavior is key.[264]

Evaluations of animals to reduce the likelihood of injuries to the human participants of AAI programs are common.[265] Each facility determines what testing methodology it will accept.[266] Generally, the evaluations

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INFECTIONS OF LEISURE 111, 112–14 (David Schlossberg ed., 5th ed., 2016) (discussing dog bites and prevention). Note that the Centers for Disease Control and Prevention recommends that if an animal bites a person during AAA, such animal be permanently removed from the program. GUIDELINES FOR ENVIRONMENTAL INFECTION CONTROL IN HEALTH-CARE FACILITIES, CENTERS FOR DISEASE CONTROL AND PREVENTION 121, (2003) https://www.cdc.gov/infectioncontrol/pdf/guidelines/environmental-guidelines.pdf (last visited Jan. 25, 2018).

[263] *See, e.g.*, Bermudez v. Hanan, 977 N.Y.S.2d 665, 2013 N.Y. Slip Op. 51610(U), at *2–3 (N.Y. Civ. Ct. Sept. 13, 2013) (discussing case of a dog who was "certified to visit healthcare facilities as part of a therapy dog team" and visited hospitals and senior citizen centers, who bit a guest at a social gathering causing injuries requiring medical treatment). The *Bermudez* court, citing in part to the dog's work as a therapy dog, found the claimant failed to demonstrate the owner of the dog either knew or should have known of any vicious propensities of the dog. *Id.* at *12; Chaffin v. Wall, No. B221151, 2010 WL 4886290, at *1 (Cal. Ct. App. Dec. 27, 2010) (*unpublishable/noncitable*) (describing an incident where a hearing-impaired spouse's service dog bit a child on the head when the dog was startled by the child poking "the dog from behind with a brush" in a case relating to an order of visitation for a maternal grandfather). The child was treated at a hospital emergency room and has some scars due to the incident. *Id. See also* Parvini v. City of Chicago, No. 1-16-3329, 2017 Ill. App. Unpub. LEXIS 2762, at *1 (Ill. App. Ct. Dec. 27, 2017) (affirming City of Chicago Department of Administrative Hearings finding that the dog was a dangerous animal, after reports of two incidents with other dogs, despite evidence of the generally good temperament of the dog, including certification from Therapy Dogs International).

[264] *See* AVMA Guidelines for AAA, *supra* note 258 (discussing animal selection based on the role the animal will play).

[265] *See, e.g.*, *Program Requirements*, PET PARTNERS, https://petpartners.org/volunteer/become-a-handler/program-requirements/ (last visited Jan. 25, 2018) (explaining that animals with a history of aggression or seriously injuring people or other animals do not meet the criteria for its program); *Therapy Dogs International (TDI) Testing Guidelines*, THERAPY DOGS INTERNATIONAL, http://www.tdi-dog.org/HowToJoin.aspx?Page=New+TDI+Test (last visited Jan. 25, 2018) [hereinafter TDI Testing Guidelines] (setting forth the evaluation guidelines). Therapy Dogs International "will not test or register any dog that has bitten a human being." *TDI Testing Requirements Brochure*, THERAPY DOGS INTERNATIONAL, http://www.tdi-dog.org/images/TestingBrochure.pdf (last visited Jan. 25, 2018) (listing additional rules for TDI testing). A dog that soils during testing immediately fails the TDI testing guidelines. *Id.*

[266] For example, for DoD facilities, the animals must pass DoD assessment. *See infra* notes 269–88 and accompanying text (discussing the DoD evaluation protocol).

attempt to determine how an animal could react in an environment where the dog (or cat) is meeting new people and engaging in typical visitation activities.[267] The purpose is to determine whether an animal is likely to have a predictable response and is well-suited to the role it is expected to play.[268]

The DoD has an extensive evaluation protocol to determine whether dogs and cats are suitable for use in human-animal bond (HAB) programs.[269] Because of the comprehensive nature of the DoD's protocol, it will be used as an example of the type of assessment that may be used.[270] The DoD temperament assessments require the evaluator to determine whether the animal's behavior fits within three categories: Acceptable, Questionable, or Unacceptable.[271] Specific physical behaviors are used to determine which category an animal's reaction falls under.[272] If a dog or cat receives an Unacceptable rating during any of the evaluation's steps, the evaluation is to be discontinued and the animal is considered not to have met the requirements for the HAB program.[273] An animal who has a Questionable reaction may still participate in an HAB program depending on the evaluator's analysis of the interactions as a whole.[274]

Examples of some of the evaluation activities for dogs under the DoD protocol include approaching and handling the dog (including petting and brushing), and otherwise interacting with the dog.[275] Observing a dog's

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[267] *See* TDI Testing Guidelines, *supra* note 265 (providing tests for dogs in group settings as well as individually, including the dogs' reaction to people utilizing walkers or wheelchairs).

[268] Ng et al., *Our Ethical and Moral Responsibility Ensuring the Welfare of Therapy Animals, in* HANDBOOK ON ANIMAL-ASSISTED THERAPY FOUNDATIONS AND GUIDELINES FOR ANIMAL-ASSISTED INTERVENTIONS 267 (Aubrey H. Fine ed., 4th ed. 2015).

[269] *See* DOD HUMAN-ANIMAL BOND, *supra* note 189, at 25–41 (providing assessments for dogs and cats). Note the 2015 recommendation of the white paper by the The Society for Healthcare Epidemiology of America that cats should not be used for AAI in a healthcare setting. Murthy et al., *supra* note 222, at 502.

[270] *See infra* notes 271–88 and accompanying text (providing information on DoD assessment).

[271] DOD HUMAN-ANIMAL BOND, *supra* note 189, at 25–39 (providing charts of behaviors for evaluations).

[272] *Id.*

[273] *Id.* at 31, 39 (recording the overall evaluation results as either meets or does not meet requirements).

[274] *Id.* (calling for the evaluatior to use his or her subjective impressions to rate the dog or cat).

[275] *Id.* at 25–28. Interacting with the dog includes rolling the dog over and rubbing the dog's belly and placing a novel stimulus by the dog when the dog is distracted to see if the dog has self-confidence. *Id.*

reactions to sound sensitivity, uncomfortable tactile stimuli, the presence of other animals, and unexpected events is also part of the evaluation.[276] Dogs are also required to follow basic training commands.[277] Any reactions indicating aggression (growling, snapping, lunging, raising hackles) are deemed Unacceptable.[278] Questionable reactions consist of barking, retreating, and—depending on the activity—either avoiding eye contact or staring at the evaluator.[279] Acceptable responses include: relaxed body posture, licking a person's hand, exhibiting playfulness, and recovering quickly.[280]

The protocol to determine the suitability of a cat for a DoD HAB program follows a similar structure.[281] After an initial and follow-up approach to the cat, the cat's friendliness is evaluated.[282] Interaction with the cat is determined by stroking the cat on the head, back and sides with higher levels of sociability established later in the process.[283] The cat's willingness to play is also determined.[284] A cat's possible aggressiveness or fear is tested by grabbing the cat's tail firmly and pulling with steady pressure as well as startling the cat with a loud noise.[285] Unacceptable behaviors for cats include signs of aggression: biting, hissing, scratching, or assuming a defensive posture.[286] Questionable reactions consist of retreating, ignoring, or escape behavior.[287] Acceptable behaviors include

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[276] *Id.* at 29–31. The purpose of the uncomfortable tactile stimuli test (such as pinching the webbing between the dog's toes or pulling hair from side to side) is to determine what a dog's reaction to sudden pain might be (such as the dog's tail being rolled over by a wheelchair). *Id.* at 29. The dog is to be muzzled for this portion of the evaluation as a safety precaution. *Id.* Intentionally causing an animal discomfort raises ethical issues. *See infra* notes 327–50 and accompanying text (discussing ethical issues with animals' work as service animals and in AAI).

[277] DoD HUMAN-ANIMAL BOND, *supra* note 189, at 31 (including the commands of sit, stay, down, and leave it).

[278] *Id.* at 25–31.

[279] *Id.* If an evaluation is questionable, the evaluator must provide a comment to explain the rating. *Id.* at 25.

[280] *Id.* at 25–31.

[281] *Id.* at 34–40.

[282] *Id.* at 35–36.

[283] *Id.* at 36. Compare with the interaction with the dog when the dog is rolled over. *Id.* at 28. Sociability I and II consist of picking up the cat and cradling the cat against the evaluator's chest and placing the cat on the evaluator's lap. *Id.* at 37–38.

[284] *Id.* at 37 (using piece of string or tossing a ball).

[285] *Id.* at 38–39.

[286] *Id.* at 35–39.

[287] *Id.*

positive vocalizations, rubbing against an evaluator's leg or hand, and relaxed body postures.[288]

Because a protocol only determines an animal's reaction at one point in time, retesting periodically and continued observation is necessary in order to reduce the likelihood that an animal could react in a way that could injure a human.[289] In addition to concerns over possible injuries to human participants, animals may be injured due to their work as service animals or participation in AAI activities.[290]

2. Injuries to Animals

Although there has been relatively few reported instances of service or therapy animals being targeted for abuse due to their status, these animals are as vulnerable to intentional harm as any companion animal.[291] For example, a case involving two people (one a current service member and the other a veteran) shooting one of the parties' emotional support dog ten times after tying the dog to a tree received significant press coverage, in part because the action was recorded and uploaded to Facebook.[292] Many

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[288] *Id.*

[289] *Id.* at 15 (discussing the possibility an animal's health status may change between visits); *Renew Registration*, PET PARTNERS, https://petpartners.org/volunteer/renew-registration/ (last visited Jan. 25, 2018) (providing that Pet Partners requires a new team evaluation every two years).

[290] *See infra* notes 291–303 and accompanying text (discussing injuries to animals).

[291] Frank R. Ascione et al., *Animal Abuse and Developmental Psychopathology: Recent Research, Programmatic, and Therapeutic Issues and Challenges for the Future, in* HANDBOOK ON ANIMAL-ASSISTED THERAPY THEORETICAL FOUNDATIONS AND GUIDELINES FOR PRACTICE 355 (Aubrey H. Fine ed., 2nd ed. 2006) (discussing abuse of animals generally, challenges in defining and tracking it, and the link between abuse of animals and interpersonal violence); ANIMAL CRUELTY: A MULTIDISCIPLINARY APPROACH TO UNDERSTANDING (Mary P. Brewster & Cassandra L. Reyes eds., 2013) (discussing various aspects of animal cruelty and abuse). The Federal Bureau of Investigation now tracks animal abuse which will help determine the extent of the issue. Tracking Animal Cruelty FBI Collecting Data on Crimes Against Animals, FBI NEWS (Feb. 1, 2016), https://www.fbi.gov/news/stories/-tracking-animal-cruelty (reporting in the reporting of animal cruelty cases).

[292] *See, e.g.*, Tina Burnside, *Cops: Ex-Soldier Kills Her Service Dog While Her Boyfriend Videotapes*, CNN (Apr. 27, 2017, 8:10 PM), http://www.cnn.com/2017/04/26/us/nc-veteran-kills-service-dog-trnd/index.html (reporting on the arrest and that the animal belonged to the veteran); Ashley Collman & Kira Blakeley, *Female Army Veteran Who Laughed as She Filmed Herself Tying Her Service Dog to a Tree and Shooting It Dead–Before Posting the Footage on Facebook–Commits Suicide*, DAILYMAIL.COM (May 8, 2017), http://www.dailymail.co.uk/news/article-4484424/Army-vet-accused-shooting-service-dog-commits-suicide.html (reporting that dog was legally

states have statutes providing for civil liability—and in some cases criminal liability—in the event a service animal is injured or killed.[293]

There is a risk of injury to animals depending on the work or tasks they are expected to perform.[294] For example, an animal who is providing mobility assistance—such as pulling a wheelchair—needs to be of the appropriate size and strength to accomplish that task.[295] Certain situations in healthcare environments can cause increased stress for animals.[296] The AVMA recommends that "[a]nimals should be monitored closely for clinical signs of stress and should have ample opportunity and space for solitude."[297]

Facility animals may be especially at risk for high levels of stress as they are essentially "on the job" on a full-time basis.[298] The DoD Guidelines recognize the risk of resident animals developing physical or behavioral problems, especially during their initial period of placement.[299] For resident animal programs in DoD facilities, program directors are required to ensure "a specific individual or individuals are designated to be responsible for feeding, exercising, and otherwise meeting all of the

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owned by the veteran's ex-husband but the veteran certified the dog as an emotional support for her and also illustrating the extensive nature of the media coverage of the case); *Fort Bragg Soldier Pleads Guilty in Service Dog's Shooting Death*, MYFOX8.COM (June 27, 2017), http://myfox8.com/2017/06/27/fort-bragg-soldier-pleads-guilty-in-service-dogs-shooting-death/ (reporting on sentencing of the active-duty soldier to one year of supervised probation and stating that dog was legally owned by veteran's husband); *see also* Deborah Kendrick, *Not All Guide Dogs, Owners Are Same*, CINCINNATI ENQUIRER (May 18, 2003) http://www.enquirer.com/editions/2003/05/18/tem_alive18.html (reporting on conviction of man for kicking his guide dog to death).

[293] Brandi Browning, *At Your Service: An Analysis of the Remedies for Service-Animal Providers and a Suggestion for More Effective Recovery Under Existing Tort Law*, 42 U. TOL. L. REV. 493, 504–08 (2011) (discussing state statutes allowing for recovery and their limitations).

[294] Nora Wenthold & Theresa A. Savage, *Ethical Issues with Service Animals*, 14 TOPICS IN STROKE REHAB. 68, 71 (2007).

[295] *Id.*

[296] Rothberg & Collins, *supra* note 85, at 312 (discussing the intense environment of psychotherapy groups and possible issues for service animals).

[297] AVMA Guidelines for AAA, *supra* note 258.

[298] Pam Schreiner, *Questions to Consider Before Acquiring Live-in Animals*, UNIVERSITY OF MINNESOTA CENSHARE, http://www.censhare.umn.edu/public-service-projects/companion-animals-in-care-environments/questions-to-consider-before-acquiring-live-in-animals/ (last visited Jan. 25, 2018) (discussing issues relating to live-in animals, including having a system to provide the animal with relief on a daily basis from the work in the facility as well as periodic "vacations").

[299] DOD HUMAN-ANIMAL BOND, *supra* note 189, at 14 (discussing ongoing evaluation of DoD-owned resident animals).

animal's needs."[300] The DoD Guidelines emphasize the need to create a predictable environment and "promptly attend[ing] to any emerging problems" in calling for frequent evaluations of resident animals.[301] Veterinarians visit DoD-owned animals to confirm compliance with the care and feeding schedules and evaluate the well-being and health of the animals.[302] The DoD recognizes that it may be necessary to remove an animal if there are "unsolvable people-based problems" or an animal is not adapting well.[303]

B. Transmission of Pathogens

A major concern when animals are allowed in healthcare facilities is the possibility of animals (and their handlers) spreading pathogens—both the cross-transmission of human pathogens and transmission of zoonotic pathogens.[304] Because people with weakened immune systems are especially at risk from zoonotic diseases, appropriate steps should be taken to reduce the likelihood of transmission of these pathogens.[305] A 2015 Expert Guidance white paper by the Society for the Heathcare

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[300] *Id.* at 10. The AVMA also recommends one individual be assigned the "primary responsibility" care and management of a resident animal. AVMA Guidelines for AAA, *supra* note 258, at 2. The program directors at DoD facilities are also required to "maintain appropriate follow-up." DOD HUMAN-ANIMAL BOND, *supra* note 189, at 10.

[301] *Id.* at 14 (discussing the monitoring of placements).

[302] *Id.* (discussing the issues that veterinarians would consider during their visits).

[303] *Id.* (assigning the program director to take the lead in resolving these issues, including institution of another human-animal bond program such as AAA or AAT).

[304] Murthy et al., *supra* note 222, at 495. "Zoonotic Diseases (also known as zoonoses) are caused by infections that are shared between animals and people." *Zoonotic Diseases*, CENTERS FOR DISEASE CONTROL AND PREVENTION, https://www.cdc.gov/onehealth/basics/zoonotic-diseases.html (last visited Jan. 25, 2018). For additional information about the plethora of zoonotic diseases and their transmission, see generally COMPANION ANIMAL ZOONOSES (J. Scott Weese & Martha B. Fulford eds., 2011). For patients who are unable to interact with animals, one program has set up an interactive portal for children to activate devices in a playroom at an animal adoption center. Meredith Rodriguez, *Program Will Let Kids Hospitalized at Lurie 'Play' With Shelter Pets*, CHI. TRIB. (May 28, 2015, 4:48 PM), http://www.chicagotribune.com/lifestyles/pets/ct-pet-rescue-cam-met-20150528-story.html (describing system that allows patients to trigger an activity at a shelter that is designed to cause an animal to interact with it).

[305] Jason Stull, *Pets and Immunocompromised Individuals, in* COMPANION ANIMAL ZOONOSES 299 (J. Scott Weese & Martha B. Fulford eds., 2011) (discussing increased risk of certain zoonotic diseases but also recognizing the benefits of animal companionship); *Zoonotic Diseases*, *supra* note 304 (discussing groups of people who are more at risk).

Epidemiology of America ("SHEA Guidance") sets forth comprehensive recommendations for entities to implement.[306]

An obvious step is to ensure that the animals on the premises are healthy.[307] Animals who are certified by outside entities must meet certain veterinary standards.[308] As an example, the VA Regulations and DoD Guidelines, discussed above, specifically address vaccinations and other health screenings required for animals used for AAA or AAT on their properties.[309] Close observation of animals to ensure that animals with concerning medical conditions (vomiting, respiratory, parasite infection) are excluded from the premises is necessary.[310] While special testing is recommended for an animal who has interacted with a known human carrier or is linked to an outbreak of infectious disease, "[r]outine screening for specific, potentially zoonotic microorganisms . . . is not.[311]

It is also important to note that it is not just the presence of the animal that is a risk factor.[312] Most of the recommendations to prevent disease transmission and injury are under the direct control of the animals' handlers.[313] Infectious diseases can be spread by human handlers, and an

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[306] Murthy et al., *supra* note 222, at 496. The Association for Professionals in Infection Control and Epidemiology also endorsed this paper. *Id.* at 514. *See also* GUIDELINES FOR ENVIRONMENTAL INFECTION CONTROL IN HEALTH-CARE FACILITIES, *supra* note 262. The SHEA Guidance recognized the CDC guidelines covered some of the same issues. Murthy et al., *supra* note 222, at 496.

[307] Murthy et al., *supra* note 222, at 506 (setting out recommendations for health screenings of animals).

[308] *See Program Requirements*, *supra* note 265 (providing vaccination requirements and not allowing animals to be fed a raw meat diet in Pet Partners programs); *Registration Requirements*, THERAPY DOGS INTERNATIONAL, http://tdi-dog.org/HowToJoin.aspx?Page=Registration+Requirements (last visited Jan. 25, 2018) (listing vaccinations, including Rabies and other veterinary requirements); *see also* AVMA Guidelines for AAA, *supra* note 258 (discussing how a wellness program should be in place to minimize or prevent the possibility of human exposure to common zoonotic diseases).

[309] 38 C.F.R. § 1.218(a)(11)(ix); DOD HUMAN-ANIMAL BOND, *supra* note 189, at 9–10. The VA Regulations state AAA and AAT animals "must be up to date with all core vaccinations or immunizations, prophylactic parasite control medications, and regular health screenings as determined necessary by a licensed veterinarian consistent with local veterinary practice standards." 38 C.F.R. § 1.218(a)(11)(ix). Documentation showing compliance with the requirements must be available in the areas where patients receive AAT or participate in AAA. *Id.*

[310] Murthy et al., *supra* note 222, at 506. The SHEA Guidance recommends a veterinary health evaluation twice a year. *Id.*

[311] *Id.* at 506. (listing A streptococci, *Clostridium difficile,* VRE, and MRSA as examples of these types of organisms).

[312] Ng et al., *supra* note 268, at 370.

[313] *See* Murthy et al., *supra* note 222, at 502–07 (discussing recommendations for AAI

appropriate hand-washing protocol should be put in place.[314] Handlers should be trained on such protocol as well as other actions to reduce the possibility of infection or injury.[315]

The interaction between the patient and AAI team can also be structured to reduce the possibility of disease transmission or injury.[316] For example, if an animal is allowed on a bed, ideally a disposable barrier should be placed between the bed and the animal and discarded after the animal's visit.[317] The physical interaction between the animal and patient should be monitored to prevent the animal from coming into contact with breaches of the skin or medical equipment.[318]

There may be other recommendations to safeguard public health if there is a resident animal.[319] For example, in addition to the requirements imposed to mitigate risks for all human-animal bond programs in military treatment facilities, the DoD mandates regular inspections of any facility where a human-animal bond animal resides.[320] DoD resident animal programs also have ongoing educational requirements for residents, patients, and staff on issues relating to animal health and sanitation.[321]

Because of increased risk factors, the SHEA Guidance recommends generally that personal pets should not be allowed to enter a healthcare facility.[322] However, the SHEA Guidance acknowledges that exceptions

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including requiring immunizations, such as influenza, for handlers, if such immunizations are required for healthcare providers in the facility).

[314] Ng et al., *supra* note 268, at 370 (recommending actions to prevent the spread of infectious disease, including wiping animals' footpads given the possibility of the floor being contaminated).

[315] *See* Murthy et al., *supra* note 222, at 502–07.

[316] *Id.* at 507.

[317] *Id.*

[318] *Id.* The SHEA Guidance also recommends discouraging patients from shaking the animals paw, but, if such contact is allowed by the facility, the patient should perform hand hygiene before and after. *Id.* The recommendations also would require handlers to prevent their animals from licking patients and staff. *Id.*

[319] *See supra* note 224 and accompanying text (defining a resident animal); *Meet Walter Reed National Military Medical Center's Canine Heroes*, *supra* note 225 (reporting on resident animals).

[320] DoD HUMAN-ANIMAL BOND, *supra* note 189, at 10. Inspections in government-owned facilities are performed by an Army veterinarian with the frequency determined by the type of resident animal at the facility. *Id.*

[321] *Id.* This education, conducted by a military veterinarian, must be conducted no less often than semiannually and must include information on human-animal bond principals. *Id.*

[322] Murthy et al., *supra* note 222, at 511–12. Among the risks are the lack of temperament testing or health assessment for personal pets compared with pets used in formal AAA programs. *Id.* at 512.

could be considered and sets out several recommendations to limit the risks of interaction with other patients.[323]

Because of the legal requirement allowing access for persons with service animals, it is not possible to implement all of the same protocols to prevent injury or infectious disease transmission as with other animals.[324] However, as discussed above, service animals may be excluded from certain areas of healthcare facilities,[325] and a direct-threat analysis can include a determination that an individual animal is infectious or ill.[326]

C. Ethical Concerns

Ethical issues relating to animals used in AAI and as service animals have received increased attention in recent years.[327] Although a comprehensive discussion of ethical issues is beyond the scope of this Article, this section discusses a few concerns given the likelihood that animals will continue to be used for AAI and as service animals for the foreseeable future.[328] One challenge is a lack of universal guidelines on the

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[323] *Id.* at 511–12.

[324] *See supra* notes 25–125 and accompanying text (discussing the ADA).

[325] *See supra* notes 98, 99, and 110 and accompanying text (discussing areas from which a service animal can be excluded).

[326] Murthy et al., *supra* note 222, at 508 (recommending a service animal be evaluated by a veterinarian if staff believes the animal has an infection or is ill); *supra* notes 73–84 and accompanying text (analyzing *Roe v. Providence Health System-Oregon* case).

[327] *E.g.*, SUE DONALDSON & WILL KYMLICKA, ZOOPOLIS: A POLITICAL THEORY OF ANIMAL RIGHTS 140–42 (2011) (promoting citizenship model generally and raising issues regarding the use of animal labor, including work as service animals or in AAI, crossing the line from use to exploitation); JESSICA PIERCE, RUN SPOT RUN: THE ETHICS OF KEEPING PETS 61–64 (2016) (considering the ethics of using a living being as a tool to improve human health); Ng et al., *supra* note 268, at 357 (discussing ethical issues relating to the welfare of animals participating in AAI, including some benefits to the animals); Zipporah Weisberg, *Animal Assisted Intervention and Citizenship Theory, in* PETS AND PEOPLE: THE ETHICS OF OUR RELATIONSHIPS WITH COMPANION ANIMALS 218–33 (Christine Overall ed., 2017) (promoting citizenship model and discussing specific issues relating to its application to the participation of animals in AAI).

[328] *Supra* notes 25–259 and accompanying text (discussing issues with service animals and animals participating in AAI). *See also* Huss, *Context*, *supra* note 27, at 1170–74 (discussing ethical issues relating to service animals).

ethics of human-animal relationships.[329] Setting standards is difficult given the complexity associated with determining animal welfare.[330]

However, organizations evaluating animals participating in AAI or devoted to the training of service animals often have policies that can serve to protect animals and highlight some of the issues.[331] Generally, these policies focus on the responsibility of the handler to protect the welfare of an animal.[332] This section highlights just two issues relating to a dog's role as a working animal—at the beginning and end of his or her career.[333]

Issues have been raised regarding the methods used by some organizations to train service animals.[334] Historically, aversive

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[329] Ng et al., *supra* note 268, at 366, 371–72 (discussing the difficulty of formulating guidelines given the lack of precise criteria that would guarantee the welfare of an animal, but also providing an example of an instrument to assess the well-being of a dog before, during, and after a therapy session).

[330] *Id.* at 366, 371–72.

[331] *Ethics for Dogs*, ASSISTANCE DOGS INTERNATIONAL, https://www.assistancedogsinternational.org/standards/assistance-dogs/ethics-for-dogs/ (last visited Jan. 25, 2018) [hereinafter ADI ETHICS FOR DOGS] (providing ethics for dogs including placing a dog "with a client able to provide for the dog's emotional, physical and financial needs," as well as screening standards because "ADI believes that any dog the member organizations trains to become an Assistance Dog has a right to a quality life"); *Test Requirements*, THERAPY DOGS INTERNATIONAL, http://tdi-dog.org/HowToJoin.aspx?Page=Testing+Requirements (last visited Jan. 25, 2018) (requiring the dog must be a minimum of one year of age and be healthy). *See also* Huss, *Aging*, *supra* note 11, at 538 (discussing controversy over the decision of one organization that certifies animals used in pet visitation to not allow animals fed a raw diet to participate in its programs); Murthy et al., *supra* note 222, at 506 (recommending exclusion of any animal fed raw foods within the past ninety days); Greg Cima, *Raw Food Policy Draws Debate*, AVMA (Sept. 5, 2012), https://www.avma.org/News/JAVMANews/Pages/120915q.aspx (discussing controversy over AVMA policy); *Position on Raw Meat Diets*, PET PARTNERS, https://petpartners.org/wp-content/uploads/2017/08/PP_Raw-Diet-Info-Sheet.pdf (last visited Jan. 25, 2018) (setting forth position); *Raw Pet Foods and the AVMA's Policy: FAQ*, AVMA, https://www.avma.org/KB/Resources/FAQs/Pages/Raw-Pet-Foods-and-the-AVMA-Policy-FAQ.aspx (last visited Jan. 25, 2018) (discussing the development of the AVMA policy after Pet Partners inquiry).

[332] *Pet Partners Therapy Animal Program Policies and Procedures*, PET PARTNERS, https://petpartners.org/volunteer/our-therapy-animal-program/volunteer-policies-procedures/ (last visited Jan. 25, 2018) (providing handlers "will be responsible for my animal at all times, considering its needs and humane care first[,]" limiting visits to two hours per day, and "remain in control of the situation[.]").

[333] *Infra* notes 334–47 and accompanying text (discussing training and retirement of animals).

[334] Philip Tedeschi et al., *On Call 24/7–The Emerging Roles of Service and Support Animals, in* HANDBOOK ON ANIMAL-ASSISTED THERAPY FOUNDATIONS AND GUIDELINES FOR

conditioning has been used as the primary training technique.[335] However, recent research "indicates that animals learn more effectively, experience less stress, and display fewer behavioral problems when trained using positive reinforcement methods."[336] The AVMA and other organizations recommend the use of positive reinforcement training methods.[337]

Another issue with a clear ethical component is to determine when an animal should no longer serve as a service animal or participate in AAI as well as the disposition of such animal.[338] As with service work or participation in AAI generally, the age at which an animal should cease the activity should be individually calculated on a case-by-case basis.[339] This assessment should take into consideration whether continuing or ceasing the activities would be stressful for the animal.[340]

Animals involved in AAI often are already part of a family unit so the only question is whether the activity continues.[341] Retirement of a service animal obtained from an organization is governed by the terms of the agreement between the entity and organization.[342]

ANIMAL-ASSISTED INTERVENTIONS 329–331 (Aubrey H. Fine ed., 4th ed. 2015) (discussing the training of service animals by organizations and individuals).

[335] *Id.* at 329–30.

[336] *Id.* at 330.

[337] Weisberg, *supra* note 327, at 226–28 (discussing the possibility of non-coercive training and socialization); ADI ETHICS FOR DOGS, *supra* note 331 (providing "[a]n Assistance Dog must be trained using humane training methods providing for the physical and emotional safety of the dog"); AVMA Guidelines for AAA, *supra* note 258 (stating that animals used in AAA, AAT and resident animal programs "should have been, and should be, trained by use of positive reinforcement"); IAHAIO WHITE PAPER, *supra* note 212, at 6–7 (stating only domesticated animals should be used for AAI and "trained with humane techniques, such as positive reinforcement.").

[338] Weisberg, *supra* note 327, at 231 (discussing the ethical obligation to animals after they no longer participate in AAI).

[339] Ng et al., *supra* note 268, at 366 (discussing the need to consider the animal's age and physical health and recommending, ideally, an animal is at least two years of age before beginning but acknowledging there is no consensus on the age of retirement).

[340] Ng et al., *supra* note 268, at 366 (suggesting a significant change in an animal's usual schedule may cause stress).

[341] IAHAIO WHITE PAPER, *supra* note 212, at 7 (discussing how animals that may be "good pets" by their owners are not necessarily appropriate for AAI).

[342] Alex Taylor, *Guide Dogs: Coping With Retirement and Death*, BBC NEWS (Nov. 20, 2017), http://www.bbc.com/news/uk-42028076 (last visited Jan. 25, 2018) (discussing issues with the retirement (including retaining and rehoming) and death of a guide dog); Kea Grace, *Retiring a Service Dog: Signs It Is Time*, ANYTHING PAWSABLE, https://www.anythingpawsable.com/retiring-a-service-dog-faq/ (last visited Jan. 25, 2018) (discussing how some organizations require an animal no longer in service to be returned to the organization, others allow the animal to remain with the human partner, and others

The DoD provides guidelines for the retirement, adoption, or euthanization of a therapy animal owned by the DoD.[343] The guidelines call for a collaborative process for these decisions.[344] DoD animals that are at the end of their useful life or are "excess to the needs" of the DoD are able to be adopted.[345] Any person "capable of humanely caring for the animal" may adopt the animal; however, former handlers of the animal have priority over other interested parties.[346] Other organizations may accept responsibility for the dogs they place in the event of a client's inability to provide proper care.[347]

Complicated ethical concerns arise whenever humans interact with other living beings; however, it is the responsibility of the humans involved to address these issues given the role these animals play in our lives.[348] As one group of commentators stated:

> Ultimately, we hope people will realize that irrespective of the potential benefits to humans, sometimes the costs to the animal may be too much to bear. How can true healing occur through the power of the human-animal bond, if the instrument of that healing—the animal—suffers for it? If it is not mutually beneficial, can it truly be good for the human? . . . [W]e owe it to both the dogs themselves and their handlers—present and future—to ensure that it will be an ethical, moral, and safe animal-assisted intervention.[349]

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provide for the rehoming of the animal); *Sample Guide Dog User Contract*, GUIDE DOGS FOR THE BLIND, http://www.gdb-official.com/site/PageServer?pagename=programs_bvi_apply_contract (last visited Jan. 25, 2018) (setting out options based in part on the timing of any retirement); *The Ultimate List: Service Dog Schools with Adoption Programs*, PUPPY IN TRAINING.COM, https://puppyintraining.com/the-ultimate-list-service-dog-schools-with-adoption-programs/ (last visited Jan. 25, 2018) (listing service dog training entities with programs for dogs that are released or retired from their programs).

[343] DOD HUMAN-ANIMAL BOND, *supra* note 189, at 11.

[344] *Id.* (including input from the "handler, unit medical commander, local veterinarian, and if applicable, the donating entity"). The DoD guidelines provide "an opportunity for unit personnel to organize and conduct a memorial service to recognize the animal's service and to help attain closure." *Id.*

[345] 10 U.S.C. § 2583(a) (2016) (setting forth the process of disposition of military animals). Once an animal is adopted, the United States is no longer responsible for any action by or expenses incurred for the animal. *Id.* at § 2583(e).

[346] 10 U.S.C. § 2583(c) (2016) (listing the priority of persons who may adopt animals).

[347] ADI ETHICS FOR DOGS, *supra* note 331 (providing ADI member organizations have that responsibility).

[348] *See supra* note 327 (citing work in companion animal ethics).

[349] Tedeschi et al., *supra* note 334, at 331 (raising welfare considerations in connection with the use of psychiatric service animals).

As the ones with the power to determine whether the animal engages in the activity, humans have the obligation to make certain the well-being of the animals is always considered, regardless of the possible benefits to human participants.[350]

V. CONCLUSION

A facility can reduce the likelihood of legal liability with the good faith adoption of a written service animal policy that is consistent with federal law and the relevant state law,[351] as well as education of its staff on its terms.[352] The ADA regulations, case law, and settlement agreements provide ample examples of what entities should (and should not) do if a patient or visitor is accompanied by a service animal. As illustrated by the cases discussed herein, it only takes one misinformed employee involved in a confrontation to open up an entity to liability or, at a minimum, negative media attention.[353] Each and every employee who may have interaction with an individual with a service animal should be trained on the policy, and there should be an organized process in place to efficiently deal with any issues that may arise.[354]

Given the increasing amount of research considering the potential positive impact of having AAI programs, entities can formulate policies to mitigate the possibility of injury or pathogen transfer to allow for such programs. If an entity has not yet considered the guidance available to mitigate the risks of AAI, it should immediately do so to reduce the likelihood of damage to people and animals.[355]

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[350] IAHAIO WHITE PAPER, *supra* note 212, at 6–8 (setting forth guidelines for animal well-being).

[351] *E.g.*, *Service Animal for Patient/Visitor Policy*, JOHNS HOPKINS MEDICINE, https://www.hopkinsmedicine.org/the_johns_hopkins_hospital/planning_visit/service_animal.html (last visited Feb. 24, 2018).

[352] *See generally* Sheely v. MRI Radiology Network, P.A., 505 F.3d 1173, 1179–82, 1185–89 (11th Cir. 2007) (finding claims under the ADA and Rehabilitation Act were not moot even though a facility adopted a service policy given the timing of adoption of the policy (nine months after the lawsuit was filed) and evidence the potentially discriminatory treatment of a woman with a service animal was not an isolated incident).

[353] *See* Hays & Ryckaert, *supra* note 24 (describing media attention).

[354] Patricia A. Hughes & Fay A. Rozovky, *Service Animals in Health Care: Strategies for Regulatory Compliance*, 18 No. 1 J. HEALTH CARE COMPLIANCE 5, 14 (Jan–Feb. 2016), (discussing the need for clear communication and a clear process and providing a checklist for regulatory compliance including topics for an educational program).

[355] *See* Linder, *supra* note 4, at 886 (discussing the lack of comprehensive policies at facilities).

Although the risks associated with having service animals and AAI animals in healthcare environments cannot be eliminated, it is possible to address many of these valid concerns.[356] Comprehensive guidance is now available for entities to consider when establishing their protocols.[357] When setting such policies, attention should be paid to the welfare of both the humans and animals involved in the activities to ensure that all involved remain safe and benefit from the interaction.

[356] *Supra* notes 260–350 and accompanying text (discussing risks and their mitigation).

[357] *See, e.g.*, Murthy et al., *supra* note 222, at 496 (discussing the purpose of the paper as a set of practical recommendations to be viewed as suggested actions).

International Law and Military Intervention: U.S. Action in Syria

Dr. Waseem Ahmad Qureshi*

Abstract

In early 2017, the United States ("U.S.") fired fifty-nine Tomahawk cruise missiles at a Syrian airbase. The U.S. argued that it fired these missiles in response to the Syrian government using chemical weapons against its own civilian population. If the Syrian state was indeed responsible for using these chemical weapons against its own citizens, is the U.S. missile attack in response justifiable under the international law of force? The U.S. used force against the sovereign territory of Syria without United Nations Security Council ("UNSC") authorization and without the existence of an actual "armed attack" against U.S. territory. The official U.S. stance is that the President acted "pursuant to [his] constitutional authority to conduct foreign relations and as a Commander in Chief and Chief Executive" and that "the U.S. will take additional actions, as necessary and appropriate, to further its important national interests." It also added that the strikes were ordered to protect the "vital national security interest of the United States to prevent and deter the spread and use of deadly chemical weapons." The U.S. called upon "all civilized nations to join [them] in seeking to end the slaughter and bloodshed in Syria and also to end terrorism of all kinds and all types." Therefore, to evaluate the legitimacy of the U.S. use of force and, more particularly, to assess the legality of the U.S. missile attack on a Syrian airbase in sovereign Syrian territory, this paper will explore the justifications and defenses of the legal use of force under international law, while also exploring the other theoretical and customary justifications for the use of force, such as the "unwilling or unable test" within the same context.

* Advocate Supreme Court of Pakistan

INTRODUCTION

In the 2017 Shayrat missile strike, the U.S. fired fifty-nine Tomahawk missiles at an airbase in violation of Syrian sovereignty.[1] According to the Pentagon, about 2,000 U.S. ground forces are currently stationed in sovereign Syrian territory.[2] The U.S. argued that it had fired these missiles in response to the use of chemical weapons by the Syrian government against its own civilians, in violation of a 2013 treaty signed by Syria proscribing the use of chemical weapons.[3] However, the use of chemical weapons cannot be irrefutably attributed to Syria.[4] Russia argues that the evidence suggests that the terrorist organization Al-Nusra may have stored sarin gas in a warehouse that was targeted by Syria.[5] So the accusation

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[1] JOHN W. PARKER, PUTIN'S SYRIAN GAMBIT: SHARPER ELBOWS, BIGGER FOOTPRINT, STICKIER WICKET 49 (Denise Natalie ed., 2017), http://inss.ndu.edu/Portals/68/Documents/stratperspective/inss/Strategic-Perspectives-25.pdf.

[2] Dan Lamothe, *There Are Four Times as Many U.S. Troops in Syria as Previously Acknowledged by the Pentagon*, WASH. POST (Dec. 6, 2017), https://www.washingtonpost.com/news/checkpoint/wp/2017/12/06/there-are-four-times-as-many-u-s-troops-in-syria-as-previously-acknowledged-by-the-pentagon/?utm_term=.62c232e26270.

[3] PARKER, *supra* note 1, at 49.

[4] *See* Stephanie Nebehay, *Syrian Government Used Chemical Weapons More than Two Dozen Times: U.N.*, REUTERS (Sept. 6, 2017), https://www.reuters.com/article/us-mideast-crisis-syria-warcrimes/syrian-government-forces-used-chemical-weapons-more-than-two-dozen-times-u-n-idUSKCN1BH18W. *See also* Patrick Kingsley & Anne Barnard, *Banned Nerve Agent Sarin Used in Syria Chemical Attack, Turkey Says*, N.Y. TIMES (Apr. 6, 2017), https://www.nytimes.com/2017/04/06/world/middleeast/chemical-attack-syria.html.

[5] Kingsley & Barnard, *supra* note 4.

against Syria is considered baseless by Syria's ally, Russia.[6] Even if, for the sake of argument, we assume that the Syrian state was indeed responsible for using these chemical weapons against its own citizens, the legality of use of force by U.S. in response to use of chemical weapons is contestable under international law.[7]

The U.S. use of force against the sovereign territory of Syria was taken without UNSC authorization, without an actual armed attack against U.S. territory, and without congressional approval.[8] In defense of the use of force against the sovereignty of Syria, the official U.S. stance is that the President acted "pursuant to [his] constitutional authority to conduct foreign relations and as a Commander in Chief and Chief Executive" and that "the U.S. will take additional action, as necessary and appropriate, to further its important national interests."[9] It also adds that the strikes were ordered in order to protect the "vital national security interest of the United States"[10] to prevent and deter the spread and use of deadly chemical weapons. The President also called upon "all civilized nations to join us in seeking to end the slaughter and bloodshed in Syria and also to end terrorism of all kinds and all types."[11]

To evaluate the legitimacy of the use of force by the U.S., and more particularly to assess the legality of the 2017 Shayrat missile strike on a Syrian airbase in sovereign Syrian territory in response to the alleged Syrian use of chemical weapons,[12] this paper will explore justifications and defenses for using force under international law, customary international law, and the theoretical law of use of force.

Section 1 of this paper will discuss the prohibition on the use of force under the U.N. Charter. Section 1.1 will touch upon the concept of armed conflict and armed attacks, and Section 1.2 will define aggression, so as to better evaluate the ongoing international armed conflict between Syria, the

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[6] *See* PARKER, supra 1, at 49–50.

[7] *See* DONNA G. STARR-DEELEN, COUNTER-TERRORISM FROM THE OBAMA ADMINISTRATION TO PRESIDENT TRUMP: CAUGHT IN THE FAIT ACCOMPLI WAR 66 (2017) ("An analysis of the legality of the airstrike on Syria in April requires a discussion of two related questions: (1) does international law permit the proposed used of force, and (2) when does the president have the authority under the U.S. Constitution to use force.").

[8] *See id.*

[9] Letter to Congressional Leaders on United States Military Operations in Syria 2017, DAILY COMP. PRESS. DOC. 244 (Apr. 8, 2017) [hereinafter *Presidential Letter on Syria*].

[10] *Id.*

[11] Donald J. Trump, President of the U. S. (Apr. 7, 2017) (video and transcript available at Time News) (Ryan Teague Beckwith, *Read President Trump's Remarks on the Syrian Missile Attack*, TIME (Apr. 7, 2017), http://time.com/4730215/syria-missile-strike-chemical-attack-trump-transcript/).

[12] *See* PARKER, *supra* note 1, at 49.

U.S., and their respective allies. Section 2 of this paper will then discuss legal justifications for the use of force under international law. Section 2.1 will examine the use of force under self-defense. Section 2.2 will consider the use of force under the invitation of a State, and Section 2.3 will consider the legal use of force following UNSC authorization. Section 3 of this paper will evaluate other justifications for using force against the sovereign territory of a State. Section 3.1 will explore the use of force under "anticipatory self-defense." Section 3.2 will discuss the use of force for humanitarian purposes under the principle of the "responsibility to protect" ("R2P"), and Section 3.3 will consider the use of force under the "unwilling or unable test."

I. PROHIBITION ON THE USE OF FORCE

The main purpose for the creation of the U.N. was to prohibit the use of force, so that the international peace and security of the world could be maintained.[13] In the *Armed Activities on the Territory of the Congo*, the International Court of Justice ("ICJ") recognized this by stating that "the prohibition against the use of force is a cornerstone of the United Nations Charter."[14]

Through the U.N. Charter, the U.N. has prohibited all uses of force in order to prevent wars and establish peace.[15] Article 2(4) of the U.N. Charter reads as follows:

> All members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the [p]urposes of the United Nations.[16]

There are several special aspects to note in the wording of this Article. The first is the international aspect of force, which means that domestic use of force does not come under the ambit of Article 2(4).[17] Scholars collectively agree with this understanding.[18] The second aspect is that

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[13] SCOTT NICHOLAS ROMANIUK, NEW WARS: TERRORISM AND SECURITY OF THE STATE 2 (2013).

[14] Armed Activities on the Territory of the Congo (Dem. Rep. Congo v. Uganda), 2005 I.C.J. Rep. 168, ¶ 148 (Dec. 19).

[15] *See* ROMANIUK, *supra* note 13, at 2.

[16] U.N. Charter art. 2, ¶ 4.

[17] *See* T. RRECAJ, THE POLITICS OF LEGAL REGIMES OF NUCLEAR ENERGY IN THE ASPECT OF INTERNATIONAL SECURITY: THE NPT REGIME, INTERNATIONAL SECURITY, NUCLEAR TERRORISM AND INTERNATIONAL COOPERATION 71 (2014) (arguing that the U.N. Charter forbids all states from interfering in the internal matters of any other state).

[18] *Id.* *See* ANTONIO TANCA, FOREIGN ARMED INTERVENTION IN INTERNAL CONFLICT 52

Article 2(4) does not explicitly use the word "war".[19] This is because the Article, in essence, prohibits all uses of force, even those that fall short of war.[20] Therefore, war is also covered under the same proscription.[21] The third distinctive aspect of Article 2(4) is that it prohibits the threat of force[22] as well as the use of force.[23] The ICJ has elaborated on this point, finding that only unlawful threats to use force are prohibited by U.N. Charter.[24] This means that there are lawful threats to use force as well.[25] Justified and lawful use of force is discussed in detail in Section 2. The exceptions to lawful use of force include 1) using force in self-defense under Article 51 of the Charter,[26] and 2) with UNSC authorization.[27] It is pertinent to note here that there is not a third exception under the U.N. Charter where the use of force is legal.[28] Therefore, in all other circumstances, recourse to force against other States is completely illegal under the U.N. Charter.[29]

In the U.S.-Syria conflict, the alleged domestic use of chemical weapons by the Syrian State does not come within the scope of Article 2(4). Since it

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(Martinus Nijhoff Publishers 1993) (arguing the same concept).

[19] *See* AMOS ENABULELE & BRIGHT BAZUAYE, TEACHINGS ON BASIC TOPICS IN PUBLIC INTERNATIONAL LAW 357 (2014) ("The use of the term 'force' instead of 'war' gives the provision a particularly broad scope, as there are numerous examples of the use of force that fall short of war, and which would not come within the ambit of article 2(4), had the term 'war' been used.").

[20] U.N. Charter art. 2, ¶ 4. *See* ENABULELE & BAZUAYE, *supra* note 19, at 357.

[21] ENABULELE & BAZUAYE, *supra* note 19, at 357.

[22] WASEEM AHMAD QURESHI, THE USE OF FORCE IN ISLAM 22–23 (2017) [hereinafter USE OF FORCE IN ISLAM].

[23] Legality of the Threat of Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. Rep. 226, ¶ 38 (July 8) ("[T]he threat or use of force against the territorial integrity or political independence of another State or in any other manner inconsistent with the purposes of the United Nations is prohibited.") (quoting U.N. Charter art. 2, ¶ 4); CHRISTOPHER C. JOYNER, INTERNATIONAL LAW IN THE 21ST CENTURY: RULES FOR GLOBAL GOVERNANCE 165 (2005).

[24] Legality of the Threat of Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. Rep. 226, ¶ 38 (July 8); *see also* YORAM DINSTEIN, WAR, AGGRESSION AND SELF-DEFENSE 89 (5th ed. 2011).

[25] *See* DINSTEIN, *supra* note 24, at 89.

[26] U.N. Charter art. 51; *see also* JACKSON NYAMUYA MAOGOTO, BATTLING TERRORISM: LEGAL PERSPECTIVES ON THE USE OF FORCE AND THE WAR ON TERROR 101 (2016).

[27] U.N. Charter arts. 42, 53, ¶ 1; *see also* MAOGOTO, *supra* note 26, at 101.

[28] SPENCER ZIFCAK, UNITED NATIONS REFORM: HEADING NORTH OR SOUTH? 85 (2009).

[29] *See* Christian J. Tams & James G. Devaney, *Jus ad Bellum: Crossing Borders to Wage War against Individuals*, *in* LEGITIMACY AND DRONES: INVESTIGATING THE LEGALITY, MORALITY AND EFFICACY OF UCAVS 25, 28 (Steven J. Barela ed., 2016); *see also*, Jure Vidmar, *Human Rights, Democracy and the Legitimacy of Governments in International Law: Practice of States and UN Organs*, *in* THE ARAB SPRING: NEW PATTERNS FOR DEMOCRACY AND INTERNATIONAL LAW 53, 72 (Carlo Panara & Gary Wilson eds., 2013).

is neither an armed attack nor a use of force against any other State, it can only be considered an internal affair of Syria. Therefore, the use of chemical weapons by Syria, against rebels or against its own people, cannot be considered to violate the prohibition on the use of force under the U.N. Charter. Article 2(4) prohibits threats[30] of and use of force against other states.[31] The use of chemical weapons, if proved beyond a reasonable doubt, can only be considered a violation of the 2013 treaty banning the use of chemical weapons, which was signed by Syria.[32] If proved, only the U.N. can deal with this treaty violation in order to deter future violations of agreements.[33] Under no circumstances can the U.S. legally police international law without UNSC authorization.[34] By contrast, any use of force or threat[35] of force against the sovereignty of Syria is prohibited under Article 2(4).[36] Similarly, aiding and abetting rebels in Syrian territory is prohibited and considered an act of aggression under ICJ case law.[37] In this

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[30] USE OF FORCE IN ISLAM, *supra* note 22, at 22–23.

[31] U.N. Charter art. 2, ¶ 4.

[32] *The Military Intervention in Syria has Punished a Repeated Violation of International Law*, GOUVERNEMENT.FR (April 17, 2018), https://www.gouvernement.fr/en/the-military-intervention-in-syria-has-punished-a-repeated-violation-of-international-law.
Alleged violations of international laws by Syria:

- Violation of the 1925 Protocol (prohibiting the use of chemical weapons), ratified by Syria in 1968.
- Violation of the 1993 Chemical Weapons Convention (CWC), to which Syria was a signatory in October 2013.
- Violations of several United Nations Security Council resolutions prohibiting Syria from using chemical weapons, two of which (2118 and 2235) provided for the Council's recourse to armed force in the event of violation.

Id.

[33] *See* Dr. William Partlett, *Does It Matter That Strikes Against Syria Violate International Law?*, UNIV. OF MELBOURNE, https://pursuit.unimelb.edu.au/articles/does-it-matter-that-strikes-against-syria-violate-international-law (last visited April 12, 2018). Only the United Nations Security Council can deter future violations of Chemical Weapons Convention, the treaty violation does not allow or justify unilateral use of force, and that the United Kingdom, United States, and France unilateral actions violate United Nations Charter. *Id.*

[34] *See generally* S. Krishnan, *The Alleged Use of Chemical Weapons Against the Syrian People: Does it Justify Forceful Intervention?*, 21 JADAVPUR J. INT'L REL. 138, 144-57 (2017).

[35] USE OF FORCE IN ISLAM, *supra* note 22, at 22–23.

[36] *See* U.N. Charter art. 2, ¶ 4; Krishnan, *supra* note 34.

[37] *See* MAX HILAIRE, INTERNATIONAL LAW AND THE UNITED STATES MILITARY INTERVENTION IN THE WESTERN HEMISPHERE 101 (1997) (explaining the court's finding that the United States had violated international law by financing, supplying, and training Contra rebels in Nicaragua) (citing Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.), Judgment, 1986 I.C.J. Rep. 14 (June 27)..

context, the pronouncements of threats to use force against Syria by President Obama[38] and later President Donald Trump,[39] the arming of rebels on Syrian grounds,[40] and the missile attacks against Syrian sovereignty,[41] may violate Article 2(4) of the U.N. Charter. All of these activities, if not authorized by the UNSC, can be considered as the use or threat of force, aggression, or an armed attack against another sovereign State/U.N. member under the U.N. Charter and international law.[42]

However, to comprehensively understand the exceptions of legally using force against other states while analyzing the Syria-U.S. armed conflict, and more particularly the legality of the 2017 Shayrat missile strike, it is important to analyze armed conflicts and armed attacks. What constitutes an international armed conflict? What kind of State behavior is considered "aggression"?

A. Armed Conflict and Armed Attack

The International Criminal Tribunal of Former Yugoslavia ("ICTY") defines armed conflict as follows:

> [A]n armed conflict exists whenever there is a resort to armed force between States or protracted armed violence between governmental authorities and organized armed groups or between such groups within a State. International humanitarian law applies from the initiation of such armed conflicts and extends beyond the cessation of hostilities until a general conclusion of peace is reached; or, in the case of internal conflicts, a peaceful settlement is achieved.[43]

This definition describes the threshold of force required for an armed conflict. This definition covers both domestic and international armed conflicts.[44] War and armed conflicts are not the same; armed conflict is

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[38] Mark Landler, *Obama Threatens Force Against Syria*, N. Y. TIMES, (Aug. 20, 2012), https://www.nytimes.com/2012/08/21/world/middleeast/obama-threatens-force-against-syria.html.

[39] *Presidential Letter on Syria*, *supra* note 9.

[40] TAJ HASHMI, GLOBAL JIHAD AND AMERICA: THE HUNDRED-YEAR WAR BEYOND IRAQ AND AFGHANISTAN 269 (2014).

[41] PARKER, *supra* note 1, at 49.

[42] *See generally* Krishnan, *supra* note 34, at 144-57.

[43] Carla Del Ponte, *Prosecutor of the International Criminal Tribunal for the Former Yugoslavia, Statement on the Investigation and Prosecution of Crimes Committed in Kosovo (Sept. 29, 1999)*, *in* THE KOSOVO CONFLICT AND INTERNATIONAL LAW: AN ANALYTICAL DOCUMENTATION 1974–1999, at 530 (Heike Krieger ed. 2001) (not an official document).

[44] ANNOTATED LEADING CASES OF INTERNATIONAL CRIMINAL TRIBUNALS: THE INTERNATIONAL CRIMINAL TRIBUNAL FOR THE FORMER YUGOSLAVIA 1997–1999, at 414 (André Klip & Göran Sluiter eds., 2001) ("[T]his test applied both to conflicts which are

seen as something short of war, which activates emergency laws and humanitarian laws.[45] Proponents of the use of force by the U.S. against non-State actors ("NSA") in the "War on Terror" justify force by arguing that an armed conflict can exist between a State and a NSA, therefore the U.S. is authorized to exercise the right of self-defense against that NSA.[46] However, the ICTY definition recognizes an armed conflict between a State and a NSA in a domestic setting.[47] Humanitarian law[48]—not the laws on the use of force, which have to be referred to the UN Charter—arise in an armed conflict between a State and a NSA.[49] The proponents of the "War on Terror" are also wrong in considering armed conflict between a NSA and the U.S. to be a justification for using force. The legal system that governs the laws of force does not revolve around the existence of war or armed conflict between States and NSAs.[50] Rather, these laws refer to the

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regarded as international in nature and to those which are regarded as internal to a State.").

[45] *Id.* ("[A]n armed conflict exists whenever there is a resort to armed force between States or protracted armed violence between governmental authorities and organized groups or between such groups within a State.") (quoting Prosecutor v. Tadić, Case No. IT-94-1, Decision on the Defence Motion for Interlocutory Appeal on Jurisdiction, ¶ 70 (Int'l Crim. Trib. For the Former Yugoslavia Oct. 2, 1995).

[46] Lieutenant Commander Matthew J. Sklerov, *Responding to International Cyber Attacks as Acts of War*, *in* JEFFREY CARR, INSIDE CYBER WARFARE 45, 53 (Mike Loukides ed., 2d ed. 2011) (illustrating the UNSC's authorization of the right to engage in self-defense against a NSA).

[47] *See Prosecutor v Delalic* Case. No. IT-96-21-A, Judgment, (Int'l Crim. Trib. for the Former Yugoslavia Feb. 20, 1995); *see also* Masahiko Asada, *The Concept of "Armed Conflict" in International Armed Conflict*, *in* WHAT IS WAR?: AN INVESTIGATION IN THE WAKE OF 9/11, at 51, 56 (Mary Ellen O'Connell ed., 2012) (quoting Prosecutor v. Tadić, Case No. IT-94-1, Decision on the Defence Motion for Interlocutory Appeal on Jurisdiction, ¶ 70 (Int'l Crim. Trib. For the Former Yugoslavia Oct. 2, 1995)). .

[48] HELEN DUFFY, THE 'WAR ON TERROR' AND THE FRAMEWORK OF INTERNATIONAL LAW 349 (2015).

[49] Jeanne Mirer, *US Policy of Targeted Killing With Drones: Illegal at Any Speed, in* DRONES AND TARGETED KILLING: LEGAL, MORAL, AND GEOPOLITICAL ISSUES 138 (Marjorie Cohn ed., 2014) ("The United Nations (UN) Charter governs when force can be used. [International humanitarian law] prescribes rules for the conduct of war.").

[50] Sputnik, *US Strikes on Syria Would Be a Violation of UN Charter – Analyst*, SPUTNIK NEWS (Dec. 12, 2018), https://sputniknews.com/analysis/201804121063465991-usa-strikes-un-syria-charter/ (explaining that US intervention in Syria is not aligned with the international laws); Partlett, *supra* note 33 (explaining that United Kingdom, United States, and France unilateral actions violate UN Charter); Sputnik, *Treaty Violation? Damascus Claims to Find US, UK Chemical Weapons in Syria*, SPUTNIK NEWS (Aug. 18th, 2017), https://sputniknews.com/middleeast/201708181056563391-syria-chemical-weapons-convention-violation/ (last updated Aug. 19, 2017) (stating that chemical weapons manufactured in UK and US were allegedly found in possession of opposition forces in Syria, which if proved, find UK and US in violation of international law and the UN Charter); *see also* S. Krishnan, *The Alleged Use of Chemical Weapons Against the Syrian*

occurrence of the armed use of force by one State against another.[51] Internal matters not involving other States do not come within the scope of the prohibition on the use of force.[52] Only the use of force against U.N. member States, i.e., armed conflicts that are international in nature and between two or more States, are covered by the U.N. Charter.[53] Therefore, an armed attack must be from one State against another, and the attack must be attributable to a State and not to a NSA.[54] Moreover, under international law regarding the use of force, a State cannot be held responsible for the use of force or for an armed attack by a NSA. In the landmark *Nicaragua* case, the ICJ established that "armed attack is limited to acts attributable to a state."[55] Force used by a victim State against a NSA is an example of a non-international armed conflict.[56] Scholars in support of the ICJ's view argue that use of force in the name of self-defense against a NSA is unlawful.[57]

The International Committee of the Red Cross ("ICRC") has defined an international armed conflict very clearly and thoroughly in its commentary on Article 2 of the Geneva Convention of 1949, as "resort to armed force between two or more states".[58] It is interesting to note that the ICRC does

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People: Does It Justify Forceful Intervention?, JADAVPUR UNIV., 40-41, 44-45 (Nov. 7, 2017) http://journals.sagepub.com/doi/abs/10.1177/0973598417732603.

[51] SILKE MARIE CHRISTIANSEN, CLIMATE CONFLICTS - A CASE OF INTERNATIONAL ENVIRONMENTAL AND HUMANITARIAN LAW 154 (2016).

[52] *See* T. RRECAJ, THE POLITICS OF LEGAL REGIMES OF NUCLEAR ENERGY IN THE ASPECT OF INTERNATIONAL SECURITY: THE NPT REGIME, INTERNATIONAL SECURITY, NUCLEAR TERRORISM AND INTERNATIONAL COOPERATION 71 (2014) (stating that the U.N. Charter forbids all states from interfering in the internal matters of any state).

[53] *See id.*

[54] 5 HANSPETER NEUHOLD, THE LAW OF INTERNATIONAL CONFLICT: FORCE, INTERVENTION AND PEACEFUL DISPUTE SETTLEMENT 125 (2015) (citing Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.), Judgment, 1986 I.C.J. Rep. 14, (June 27)).

[55] NEUHOLD, *supra* note 54, at 125 (citing Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.), Merits, 1986 I.C.J. Rep. 14, ¶ 195 (June 27).

[56] Yaakov Amidror, et al., HAMAS, THE GAZA WAR AND ACCOUNTABILITY, UNDER INTERNATIONAL LAW: UPDATED PROCEEDINGS OF AN INTERNATIONAL CONFERENCE ON JUNE 18, 2009, at 41 (2011).

[57] *See* CHRISTIAN HENDERSON, THE PERSISTENT ADVOCATE AND THE USE OF FORCE: THE IMPACT OF THE UNITED STATES UPON THE JUS AD BELLUM IN THE POST-COLD WAR ERA 10 (Routledge 2016) (explaining that prohibition on use of force is short of war); Harlan G. Cohen, *Theorizing Precedent in International Law, in* INTERPRETATION IN INTERNATIONAL LAW 287 (Andrea Bianchi et al. eds., 2015) (explaining that law of using force prohibits actions of one state against another and not include NSA, in accordance to the Nicaragua v. US, ICJ (1986), Advisory Opinion on *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, ICJ Reports (2004) and DRC v. Uganda, ICJ (2005)).

[58] Int'l Comm. of the Red Cross, *How is the Term "Armed Conflict" Defined in*

not acknowledge an armed conflict between a State and an armed group as an international armed conflict.[59] Thus, an actual armed attack by an aggressor State, not a NSA, is a prerequisite under international law for invoking the right to self-defense.[60] The ICJ upheld this rule in three cases: the *Military Paramilitary Activities* case, the *Oil Platforms* case, and the *Armed Activities* case.[61] In these cases, the ICJ argued that the States invoking the right to self-defense could not legally use force because there were no actual armed attacks against their sovereign territories attributable to States.[62]

In fact, a NSA carried out the 9/11 attacks, which were not unequivocally attributable to a State, yet the defensive use of force was invoked against States.[63] The U.S. used the 9/11 attacks to justify its use of force in self-defense against several countries, including against Afghanistan, Iraq and Libya.[64] Since the use of force against the sovereignty of another State in response to an armed attack by NSA is prohibited under international law,[65] critics of this use of force argue that invoking self-defensive war on terrorists is an excuse to pursue political and economic goals.[66] Conversely, proponents of the "War on Terror" argue that the severity of the 9/11 attacks gave rise to a right to use force in self-defense.[67] The UNSC, in Resolution 1368, affirmed this right.[68] In response, critics asserted that the U.S. intervened in Iraq on the falsified intelligence of weapons of mass destruction, and did so without U.N. approval, in violation of the U.N. Charter.[69] Their argument is supported by finding that the U.S. used

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International Humanitarian Law?, at 5 (Mar. 2008).

[59] *Id.* at 1.

[60] OLIVER CORTEN, THE LAW AGAINST WAR: THE PROHIBITION ON THE USE OF FORCE IN CONTEMPORARY INTERNATIONAL LAW 472 (Christopher Sutcliffe trans., 2012).

[61] *Id.*

[62] CORTEN, *supra* note 60; *see also* Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.), Judgment, 1986 I.C.J. Rep. 14, (June 27).

[63] *See* Sklerov, *supra* note 46.

[64] DAVID RAY GRIFFIN, 9/11 TEN YEARS LATER: WHEN STATE CRIMES AGAINST DEMOCRACY SUCCEED 240 (2012).

[65] CORTEN, *supra* note 60.

[66] *See* ABID ULLAH JAN, AFTER FASCISM: MUSLIMS AND THE STRUGGLE FOR SELF-DETERMINATION 38 (2006); ELLEN HALLAMS, THE UNITED STATES AND NATO SINCE 9/11: THE TRANSATLANTIC ALLIANCE RENEWED 88 (2010).

[67] *See* Sklerov, *supra* note 46.

[68] *Id.*

[69] DAVID LITTLE, ESSAYS ON RELIGION & HUMAN RIGHTS: GROUNDS TO STAND ON 301 (2015); SCOTT A. BONN, MASS DECEPTION: MORAL PANIC AND THE U.S. WAR ON IRAQ 140 (2010) (citations omitted).

disproportionate force in the "War on Terror" and, moreover, by the fact that the U.S. attacked and targeted States, rather than NSAs.[70]

In the Syrian conflict, two States—the U.S. and Syria—are involved, thus it is an international armed conflict.[71] The U.S. fired 59 Tomahawk missiles at a Syrian government airbase in response to the alleged use of chemical weapons on its own people.[72] The U.S. also did so while neither the Syrian State nor the NSAs on its territory were accused of using any force against the U.S. or its allies' sovereign territories.[73] In the wake of the missile attack against Syrian sovereignty, Syria and its allies, such as China and Russia, condemned the use of force and involvement by the U.S.[74] To counter the use of force and encouragement of NSAs in its territory by the U.S., the Syrian State and its allies have defended their territories[75] Considering this, as well as the fact that several States—the U.S.,[76] Turkey,[77] Russia,[78] and China[79]—are involved in the ongoing armed

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[70] *See* ELLEN HALLAMAS, THE UNITED STATES AND NATO SINCE 9/11: THE TRANSATLANTIC ALLIANCE RENEWED 88 (2010).

[71] *See* STUART CASEY-MASLEN, THE WAR REPORT: ARMED CONFLICT IN 2013, at 13 (2014) (explaining how armed conflict between two states constitutes an international armed conflict).

[72] PARKER, *supra* note 1, at 49.

[73] Curtis FJ Doebbler, *Why the United States' Use of Force Against Syria Violates International Law*, COUNTERPUNCH (Apr. 7, 2017), https://www.counterpunch.org/2017/04/07/why-the-united-states-use-of-force-against-syria-violates-international-law/.

[74] Cohen, *supra* note 57 (arguing that the ICJ has decided that there is no self-defense against the NSA); Madison Park, *Who's with the U.S. on Syria Strike and Who Isn't*, CNN (Apr. 8, 2017), https://www.cnn.com/2017/04/07/world/syria-us-strike-world-reaction/index.html.

[75] *See* ADAM BACZKO, GILLES DORRONSORO, & ARTHUR QUESNAY, CIVIL WAR IN SYRIA: MOBILIZATION AND COMPETING SOCIAL ORDERS 151 (2017) (discussing how Russia and China have supported Syria and blocked U.N. intervention); CLIVE ARCHER, INTERNATIONAL ORGANIZATIONS 26 (4th ed. 2015) (discussing how Russia and China have opposed U.N. backed military intervention in Syria); CHARLOTTE WALKER-SAID & JOHN D. KELLY, CORPORATE SOCIAL RESPONSIBILITY?: HUMAN RIGHTS IN THE NEW GLOBAL ECONOMY 167 (2015).

[76] *See* Dan Lamothe, *There Are Four Times as Many U.S. troops in Syria as Previously Acknowledged by the Pentagon*, WASH. POST (Dec. 6, 2017), https://www.washingtonpost.com/news/checkpoint/wp/2017/12/06/there-are-four-times-as-many-u-s-troops-in-syria-as-previously-acknowledged-by-the-pentagon/?noredirect=on&utm_term=.c536bbe85f89 (discussing the presence of U.S. troops in Syria).

[77] *See* Park, *supra* note 74 (discussing Turkey's involvement in Syria).

[78] *See* PAUL J. BOLT & SHARYL N. CROSS, CHINA, RUSSIA, AND TWENTY-FIRST CENTURY GLOBAL GEOPOLITICS 184 (2018) (discussing the involvement of the Russian military in Syria).

[79] *See* Park, *supra* note 74 (discussing China's limited involvement in the Syrian conflict).

conflict in Syria,[80] it can be rightly established that there is a continuing international armed conflict between the U.S. and the Syrian State, along with their respective allies. However, to analyze the nature of the use of force by the U.S. in Syrian territory, it is important to consider the notion of aggression.

B. Aggression

The illegal or unlawful use of force by any State is termed aggression,[81] and the State that does so is known as the aggressor.[82] The International Military Tribunal established in the *Nuremberg* case that war aggression is the greatest evil and the most serious international crime.[83] The court upheld the same ruling of criminalizing aggression during the *Tokyo Trial*[84] and the *Ministries Trial*.[85] As a result, the International Law Commission ("ILC"), under the instructions of the General Assembly, criminalized aggression as a crime against humanity[86] and a punishable offense under international law,[87] under the Nuremberg Principles of 1950[88] and Friendly

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[80] *See* PHILIP GAMAGHELYAN, CONFLICT RESOLUTION BEYOND THE REALIST PARADIGM: TRANSFORMATIVE STRATEGIES AND INCLUSIVE PRACTICES IN NAGORNO-KARABAKH AND SYRIA (2017) (discussing the involvement of 30 players in the Syrian conflict).

[81] Elizabeth Wilmshurst, *The Crime of Aggression: Custom, Treaty and Prospects for International Prosecution*, *in* INTERNATIONAL LAW BETWEEN UNIVERSALISM AND FRAGMENTATION: FESTSCHRIFT IN HONOUR OF GERHARD HAFNER 611 (Isabelle Buffard et al. eds., 2008).

[82] China condemns US strikes in Syria. *China Condemns US-Led Airstrikes in Syria, Calls for Restraint and Dialogue*, RT NEWS (April 14, 2018), https://www.rt.com/news/424127-syria-airstrikes-china-dialogue/ (last visited May 9th, 2017). Russia also condemns US strikes in Syria. *Putin: US-Led Strikes on Syria 'An Act of Aggression,'* ALJAZEERA (April 13, 2018), https://www.aljazeera.com/news/2018/04/syria-russia-iran-condemn-tripartite-attack-damascus-180414052625352.html; *see also Russia Condemns US Airstrikes on Syria as World Reacts*, DW (April 14, 2018), http://www.dw.com/en/russia-condemns-us-airstrikes-on-syria-as-world-reacts/a-43384932.

[83] *See* PERSPECTIVES ON THE NUREMBERG TRIAL 386–87 (Guénaël Mettraux ed., 2008); *see generally* Trial of the Major War Criminals (Int'l Mil. Trib. Nov. 14, 1945), https://www.loc.gov/rr/frd/Military_Law/pdf/NT_Vol-I.pdf.

[84] *See generally* Tokyo War Crimes Trials (Int'l Mil. Trib. for the Far East May 3, 1946), http://www.un.org/en/genocideprevention/documents/atrocity-crimes/Doc.3_1946%20Tokyo%20Charter.pdf.

[85] *See generally,* The Ministries Case, Trials of War Criminals Before the Nuernberg Military Tribunals (Int'l Mil. Trib. Apr. 13, 1949), http://loc.gov/rr/frd/Military_Law/pdf/NT_war-criminals_Vol-XII.pdf; *see also*, DINSTEIN, *supra* note 24, at 129.

[86] DINSTEIN, *supra* note 24, at 129.

[87] G.A. Res. 3314 (XXIX) (Dec. 14, 1974) (defining aggression as a crime against international peace); *see* Hans-Heinrich Jescheck, *International Crimes*, *in* ENCYCLOPEDIA

Relations Declaration.[89] Moreover, the UNGA Resolution 95(I) of 1946 also affirmed criminal responsibility for war aggression.[90] It is to be noted that an "act of aggression"[91] attracts individual responsibility,[92] whereas a "war of aggression" attracts international responsibility.[93] The Draft Code later clarified: "[a]n individual who, as leader or organizer, actively participates in or orders the planning, preparation, initiation or waging of aggression committed by a state shall be responsible for a crime of aggression."[94]

The Statute of the International Criminal Court was amended to define aggression as the "use of armed force by a State against the sovereignty, territorial integrity or political independence of another State, or in any other manner inconsistent with the Charter of the United Nations."[95] The statute further lists several acts that can be considered aggression, including sending armies, blocking ports, using force, military invasion or occupation, bombing, and allowing the use of State territory for these acts.[96] The inclusion of the phrase, "in any other manner inconsistent with the Charter of the United Nations" in this definition means that the use of force authorized by the U.N. or the use of force in self-defense does not come within the definition of aggression, while all other uses of force against any sovereign State are unlawful acts of aggression.[97] To comprehend the concept of lawful use of force, it is imperative to discuss the various uses of force, such as the use of force in self-defense, following U.N. authorization, and other possible scenarios, and to assess their permissibility under

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OF PUBLIC INTERNATIONAL LAW 334 (Ezio Biglieri & G. Prati eds., 2014).

[88] Int'l Law Comm'n, Rep. on Work of Its Second Session, U.N. Doc A/1316, at ¶ VI (1950); *see also* Myra Williamson, *Terrorism, War and International Law: The Legality of the Use of Force Against Afghanistan in 2001*, 14 J. CON. & SEC. L. 226 (2009).

[89] G.A. Res. 2625 (XXV), Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations (Oct. 24, 1970); *see also* CARRIE MCDOUGALL, THE CRIME OF AGGRESSION UNDER THE ROME STATUTE OF THE INTERNATIONAL CRIMINAL COURT 151 (2013).

[90] G.A. Res. 95(I) (Dec. 11, 1946).

[91] SERGEY SAYAPIN, THE CRIME OF AGGRESSION IN INTERNATIONAL CRIMINAL LAW: HISTORICAL DEVELOPMENT, COMPARATIVE ANALYSIS AND PRESENT STATE 194 (2014).

[92] *See* Int'l Law Comm'n, Draft Code of Crimes Against the Peace and Security of Mankind, Art. 16, (1996) [hereinafter Draft Code of Crimes Against Mankind].

[93] G.A. Res. 3314, *supra* note 87; *see also* INTERNATIONAL CRIMINAL LAW: SOURCES, SUBJECTS AND CONTENTS 253 (ed. M. Cherif Bassiouni 2008).

[94] Draft Code of Crimes Against Mankind, Art. 16, *supra* note 92.

[95] Rome Statute of the Int'l Criminal Court, 2187 U.N.T.S. No. 38544, art. 8 *bis* (July 17, 1998) [hereinafter Rome Statute]. Art. 8 *bis* was added as an amendment in 2010.

[96] Rome Statute, *supra* note 95, at art. 8 *bis*. *See* DINSTEIN, *supra* note 24, at 138.

[97] *See id.*

international law and the U.N. Charter. All other uses of force are unlawful under codified international law.[98]

II. LEGAL USE OF FORCE

Legal justifications as exceptions to use force under the U.N. Charter include the use of force in self-defense[99] and the use of force following UNSC authorization.[100] However, in customary practice, the global community also accepts the use of force to help a State by invitation.[101] Such use of force is not meant to threaten a State's sovereignty but rather to help it.[102] But any legal use of force must also be in compliance with international humanitarian law,[103] adhering to principles of proportionality, necessity,[104] and distinction.[105] Therefore, Section 2.1 will discuss the use of force in self-defense, Section 2.2 will discuss the use of force following invitation, Section 2.3 will discuss the use of force following UNSC

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[98] *See* U.N. Charter arts. 43, 51, 53; Tams & Devaney, *supra* note 29; *see also*, Vidmar, *supra* note 29, at 72.

[99] *See* U.N. Charter art. 51; *see also* Eri.-Eth. Claims Comm'n - Partial Award: *Jus Ad Bellum* – Eth.'s Claims 1-8, 26 R.I.A.A. 457, ¶ 11 (2003); DAVID C. RAPOPORT, TERRORISM: THE SECOND OR ANTI-COLONIAL WAVE 20 (Taylor & Francis, 2006); ANNA J. BORGERYD, MANAGING INTERCOLLECTIVE CONFLICT: PREVAILING STRUCTURES AND GLOBAL CHALLENGES 145 (1999).

[100] *See* U.N. Charter arts. 41, 42; Sklerov, *supra* note 46, at 49.

[101] A NEW INTERNATIONAL LEGAL ORDER: IN COMMEMORATION OF THE TENTH ANNIVERSARY OF THE XIAMEN ACADEMY OF INTERNATIONAL LAW 81 (Chia-Jui Cheng ed., 2016) ("The third main exception is where the territorial State consents to the use of force by the intervening State, such as through an invitation or request for assistance.") [hereinafter NEW INTERNATIONAL LEGAL ORDER]. Williamson, *supra* note 88, at 226; *see also* CORTEN, *supra* note 60, at 256.

[102] *See* NEW INTERNATIONAL LEGAL ORDER, *supra* note 101, at 81 (citing Armed Activities on the Territory of the Congo (Dem. Rep. Congo v. Uganda), 2005 I.C.J. Rep. 168, ¶ 50-54 (Dec. 19)).

[103] THEORETICAL BOUNDARIES OF ARMED CONFLICT AND HUMAN RIGHTS 252 (Jens David Ohlin ed., 2016) ("[A] use of force that is proportionate under the law of self-defence, must, in order to be lawful, also meet the requirements of the law applicable in armed conflict which comprise in particular the principles and rules of humanitarian law.") (quoting Legality of the Threat of Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. Rep. 226, ¶ 42 (July 8)).

[104] Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.), Judgment, 1986 I.C.J. Rep. 14, ¶ 194 (June 27) ("Since the existence of the right of collective self-defence is established in customary international law, the Court must define the specific conditions which may have to be met for its exercise, in addition to the conditions of necessity and proportionality to which the Parties have referred.")

[105] *See* MICHAEL A. NEWTON & LARRY MAY, PROPORTIONALITY IN INTERNATIONAL LAW 68 (2014) ("There are three *jus in bello* conditions one needs to satisfy in order to conduct war justly: discrimination (or distinction), necessity, and proportionality.").

authorization, and Section 2.4 will discuss the notions of proportionality, necessity, and distinction.

A. Use of Force in Self-Defense

According to the U.N. Charter[106] and the ICJ, it is the fundamental right of every State to use force to defend itself for its survival.[107] Therefore, under the right to self-defense, a victim State can legally use defensive force to counter unlawful force by an aggressor.[108] Their allies may also employ the use of force, under the right to collective self-defense.[109] The U.N. Charter, one of the governing laws on the use of force,[110] defines the right to self-defense in Article 51, which reads as follows:

> Nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations, until the Security Council has taken the measures necessary to maintain international peace and security. Measures taken by members in the exercise of the right of self-defence shall be immediately reported to the Security Council and shall not in any way affect the authority and responsibility of the Security Council and shall under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace and security.[111]

Article 51 is meant to be read in conjunction with Article 2(4),[112] because the right to self-defense legally allows the use of force prohibited under

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[106] U.N. Charter art. 51.

. [107] Legality of the Threat of Use of Nuclear Weapons, 1996 I.C.J. Rep. 226, ¶ 38; *see* Geert-Jan Alexander Knoops, *The Transposition of Inter-State Self-Defense and Use of Force Onto Operational Mandates for Peace Support Operations, in* LAW ENFORCEMENT WITHIN THE FRAMEWORK OF PEACE SUPPORT OPERATIONS 3 (Roberta Arnold ed., 2008).

[108] FEDERICA PADDEU, JUSTIFICATION AND EXCUSE IN INTERNATIONAL LAW: CONCEPT AND THEORY OF GENERAL DEFENCES 213 (2018); *see also* RAPOPORT, *supra* note 99, at 20.

[109] *Self-defense, Collective*, INTERNATIONAL LAW: A DICTIONARY 414 (Boleslaw A. Boczek ed., 2005) ("[T]he right of collective self-defense does not mean the exercise of individual self-defense by a group of states, but the right of states to come to the defense of a state under armed attack and entitled to individual self-defense under Art. 51.") [hereinafter *Self-defense, Collective*]; *see* U.N. Charter.art. 51.

[110] *See* CARLO FOCARELLI, INTERNATIONAL LAW AS SOCIAL CONSTRUCT: THE STRUGGLE FOR GLOBAL JUSTICE 364 (2012) (" . . . Suriname's action therefore constituted a threat of force in contravention of the Convention [UNCLOS], the United Nations Charter and general international law.") (Award in the Arbitration Regarding the Delimitation of the Maritime Boundary Between Guyana and Suriname (Guy. v. Surin.), 30 R.I.A.A., 1, ¶ 438-45 (Sept. 17, 2007)).

[111] U.N. Charter art. 51.

[112] PAUL F. J. ARANAS, SMOKESCREEN: THE U.S., NATO AND THE ILLEGITIMATE USE OF FORCE 40 (2012).

Article 2(4), as an exception in the specific scenario of being attacked by an aggressor.[113] It is pertinent to note that the use of force in self-defense must be a counterattack in response to an aggressive act against State sovereignty.[114] Therefore, there cannot be a situation where both parties to a conflict are legally using force in self-defense.[115] There must always be an aggressor State using unlawful force and a victim State acting in self-defense.[116] The court upheld the same reasoning in the *Ministries Case* of the Nuremburg Trials,[117] stating, "there can be no self-defense against a self-defense."[118] In practice, both parties to a conflict will likely argue that they are acting legally to defend themselves through the right to self-defense.[119] But it necessarily follows that one of these States must be acting under a false pretense of using legal force.[120] Under U.N. Charter Article 51, the defensive use of force is required to be in response to an actual armed attack.[121] This means that any act of self-defense in response to anything short of an actual armed attack is not a legal use of force under Article 51.[122] The ICJ in *Armed Activities on the Territory of Congo*, upheld this requirement, deciding that: "Article 51 . . . may justify a use of force in self-defence only within the strict confines there laid down. It does not allow use of force by a state to protect perceived security interests beyond these parameters."[123] Similarly, in the *Oil Platforms* case, the ICJ decided that the State using force in self-defense owes a duty to justify that it was being attacked.[124]

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[113] ANTHONY CLARK AREND & ROBERT J. BECK, INTERNATIONAL LAW AND THE USE OF FORCE: BEYOND THE U.N. CHARTER PARADIGM 31 (2014).

[114] *See* PADDEU, *supra* note 108; RAPOPORT, *supra* note 99, 20.

[115] BORGERYD, *supra* note 99.

[116] *Id.*

[117] The Ministries Case, Trials of War Criminals Before the Nuernberg Military Tribunals (Int'l Mil. Trib. Apr. 13, 1949).

[118] JAN KITTRICH, THE RIGHT OF INDIVIDUAL SELF-DEFENSE IN PUBLIC INTERNATIONAL LAW, 169 (2008) (quoting The Ministries Case, Int'l Mil. Trib. Apr. 13, 1949, at 169).

[119] KITTRICH, *supra* note 118, at 35.

[120] DINSTEIN, *supra* note 24, at 190.

[121] *See* U.N. Charter art. 51; Eri.-Eth. Claims Comm'n - Partial Award: *Jus Ad Bellum* – Eth.'s Claims 1-8, 26 R.I.A.A. 457, ¶ 11 (2003); Oil Platforms, 2003 I.C.J. Rep. 161, ¶ 51 (Nov. 6).

[122] ANDERS HENRIKSEN, INTERNATIONAL LAW 273 (2017) (arguing that only the grave / serious use of force which constitute armed attack can trigger the right to self-defense); *see also*, BORGERYD, *supra* note 99; CHRISTINE GRAY, INTERNATIONAL LAW AND THE USE OF FORCE 174 (4th ed. 2018) (discussing the ICJ's decision to deliberately avoid the issue of anticipatory self-defense).

[123] Armed Activities on the Territory of the Congo (Dem. Rep. Congo v. Uganda), 2005 I.C.J. Rep. 168, ¶ 148 (Dec. 19).

[124] Oil Platforms, 2003 I.C.J. Rep. 161, ¶ 51, 57 (Nov. 6); *see* André Nollkaemper,

Moreover, it is interesting to note that the right to self-defense is only entrusted to member States of the U.N..[125] This means that NSAs and organized groups do not have the right to self-defense.[126] Therefore, only States may legally use force in self-defense.[127]

Finally, the use of force in self-defense under Article 51 must be carried out as a counterattack to defend the State's sovereignty against an aggressor.[128] The use of force in self-defense can be either individually or collectively applied by the allies of the victim State.[129] A State cannot be held liable for the actions of an NSA because under Article 51, "an armed attack is limited to acts attributable to a state."[130] NSAs have no right to self-defense under Article 51 of the U.N. Charter.[131]

B. Use of Force Following Invitation

Under customary international law, a State can legally use force in another State with the consent of that State.[132] The ILC has recognized the use of force by invitation or consent.[133] With an invitation, a State can give its consent to a second State to use force in its territory to cooperate in a police action or to fight rebels or terrorists, which can be termed as legal consent.[134] However, a State cannot give consent to a second State to launch an action against a third State from bases within the first State's

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Attribution of Forcible Acts to States: Connections Between the Law on the Use of Force and the Law of State Responsibility, *in* THE SECURITY COUNCIL AND THE USE OF FORCE: THEORY AND REALITY – A NEED FOR A CHANGE? 141 (Niels M. Blokker & Nico Schrijver eds., 2005).

[125] *See* U.N. Charter art. 51; 3 THE VIETNAM WAR AND INTERNATIONAL LAW: THE WIDENING CONTEXT 44 (Richard A. Falk ed., 2015) [hereinafter VIETNAM WAR AND INTERNATIONAL LAW] ("[A] literal reading of its language might be taken to prevent non-Members of the United Nations from claiming self-defense.").

[126] *See* U.N. Charter art. 51; VIETNAM WAR AND INTERNATIONAL LAW, *supra* note 125.

[127] *See* U.N. Charter art. 51; AREND & BECK *supra* note 113; VIETNAM WAR AND INTERNATIONAL LAW, *supra* note 125.

[128] PADDEU, *supra* note 108; RAPOPORT, *supra* note 99, at 20.

[129] *See* U.N. Charter art. 51; *Self-defense, Collective*, *supra* note 109.

[130] NEUHOLD, *supra* note 54; *see generally*, Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.), Judgment, 1986 I.C.J. Rep. 14 (June 27).

[131] *See*, U.N. Charter art. 51; VIETNAM WAR AND INTERNATIONAL LAW, *supra* note 125.

[132] NEW INTERNATIONAL LEGAL ORDER, *supra* note 101.

[133] *See* Williamson, *supra* note 88, at 226, n. 425 ("Valid consent by a state to the commission of a given act by another state precludes the wrongfulness of that act in relation to the former state to the extent that the act remains within the limits of that consent.") (quoting Int'l Law Comm'n, Draft Articles on the Responsibility of States for Internationally Wrongful Acts, art. 20, A/8010/Rev.1 (2001) .

[134] CORTEN, *supra* note 60, at 256.

territory; this would be illegal consent or aggression because it would breach the sovereignty of the third State.[135] The use of force following illegal consent has to be considered under the prohibition to use force and the right to self-defense under Articles 2(4) and 51 of the U.N. Charter.[136] There have been a number of examples where the existence of actual consent has been questionable, such as when the U.S. has routinely argued that a host State has tacitly consented to the use of force against terrorists within its borders,[137] despite the host State officially condemning the U.S.'s use of force.[138] The legality of such consent is evaluated by considering whether the host State is protesting against the military actions of the second State.[139] If the host State is protesting by any means against the use of force, any intervention will be considered unlawful and without consent.[140] Aggressor States may argue that host States have provided prior consent to use force in their territories.[141] Sometimes these claims are even backed by a written treaty,[142] such as when the U.S. invoked the Panama Canal Treaty to back its use of force in 1989.[143] In this regard, the ILC has found that a host State has the right to withdraw its prior consent to a second State to use force in its territories.[144] Therefore, if a State protests

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[135] *Id.* at 254.

[136] *Id.*

[137] *See* Adam Entous, Siobhan Gorman, & Evan Perez, *U.S. Unease Over Drone Strikes*, WALL ST. J., (Sept. 26, 2012), https://www.wsj.com/articles/SB10000872396390444100404577641520858011452.

[138] *See e.g., Pakistan Presses On [Its] Demand for End to Illegal Drone Strikes*, NEWS (July 2, 2016), https://www.thenews.com.pk/latest/132367-Pakistan-presses-demand-end-illegal-drone-strikes; Declan Walsh, *Drone War Spurs Militants to Deadly Reprisals*, N.Y. TIMES (Dec. 29, 2012), https://www.nytimes.com/2012/12/30/world/asia/drone-war-in-pakistan-spurs-militants-to-deadly-reprisals.html.

[139] Christophe Paulussen & Jessica Dorsey, *Towards an EU position in on Armed Drones and Targeted Killing*, in FUNDAMENTAL RIGHTS IN INTERNATIONAL AND EUROPEAN LAW: PUBLIC AND PRIVATE LAW PERSPECTIVES 13 (Christophe Paulussen et al. eds., 2015).

[140] *Id.*

[141] *See* JOHN-MARK IYI, HUMANITARIAN INTERVENTION AND THE AU-ECOWAS INTERVENTION TREATIES UNDER INTERNATIONAL LAW: TOWARDS A THEORY OF REGIONAL RESPONSIBILITY TO PROTECT 264 (2016).

[142] Under written agreement of the Panama Canal Treaty, states had the right use military force. *See* Mark P. Sullivan, *Panama: Political and Economic Conditions and U.S. Relations* 20 (Nov. 27, 2012), https://fas.org/sgp/crs/row/RL30981.pdf.

[143] CORTEN, *supra* note 60, at 258.

[144] *See id.*, at 258 ("While a state may validly consent to a specific intervention by another State, a general consent given to another State that would allow the latter State to intervene militarily on its own initiative would have to be taken as inconsistent with the peremptory norm.") (quoting ILC Special Rapporteur, Giorgio Gaja, Int'l Law Comm'n, Fourth Report of Responsibility of International Organizations, at ¶ 48, Doc. A/CN.4/564 (Apr. 20, 2006)).

against a military intervention, regardless of tacit consent, treaty consent, or prior consent, any use of force against that host State will be considered an illegal use of force.[145] Within this context, Christine Gray notes that the use of force by the U.S. against NSAs and organized groups on Syrian territory violates Syrian sovereignty, because it is conducted without any kind of consent from the Syrian government or authorization from the UNSC.[146] Section 2.3 will explore the notion of using force under UNSC authorization, as enshrined in the UN Charter.

C. Use of Force Following UNSC Authorization

Besides the use of force justified by self-defense and consent, another legal use of force under international law is force authorized by the UNSC under Articles 41 and 42 of the U.N. Charter.[147] The U.N. Charter specifically appoints the Security Council as an international police force to take necessary measures to curb threats to international peace and to maintain or restore international peace.[148] Articles 43–46 of the Charter allow member States to provide military forces to the Security Council to achieve this aim.[149] Article 47 states that such military action must be undertaken under the leadership of the Military Staff Committee.[150] However, no UNSC authorization has accurately followed the procedure prescribed by the Military Staff Committee.[151] Instead, the UNSC generally authorizes or delegates its responsibilities under the U.N. Charter to other States.[152]

The UNSC has authorized the use of force in many areas including the following: Kuwait,[153] Bosnia and Herzegovina,[154] Somalia,[155] Rwanda,[156]

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[145] *See id.*, at 258–59.

[146] *See* GRAY, *supra* note 122, at 117 ("Syria protested that if any state invokes the excuse of counter-terrorism to be present [o]n Syrian territory without the consent of the Syrian government . . . its actions shall be considered a violation of Syrian sovereignty.") (internal quotation marks omitted).

[147] Sklerov, *supra* note 46, at 49; *see* U.N. Charter arts. 41, 42.

[148] *See* U.N. Charter art. 39 ("The Security Council shall determine the existence of any threat to the peace, breach of peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace or security."); Sklerov, *supra* note 46.

[149] U.N. Charter arts. 43-46; *see* SABINE HASSLER, REFORMING THE U.N. SECURITY COUNCIL MEMBERSHIP: THE ILLUSION OF REPRESENTATIVENESS 17 (2013).

[150] U.N. Charter art. 47; SVEN BERNHARD GAREIS, THE UNITED NATIONS: AN INTRODUCTION 88 (2d. ed. 2012).

[151] GAREIS, *supra* note 150 (explaining the history of the Military Staff Committee in U.N. operations).

[152] CORTEN, *supra* note 60, at 311.

[153] S.C. Res. 678 (Nov. 29, 1990).

Haiti,[157] the Central African Republic,[158] Zaire,[159] Albania,[160] Kosovo,[161] East Timor,[162] Afghanistan,[163] Democratic Republic of the Congo,[164] Iraq,[165] and Cote d'Ivoire.[166] These military authorizations were authorized for a number of reasons, including humanitarian aid, humanitarian objectives, restoration of democracy, enforcement of international agreements, and other military interests.[167] The use of force under UNSC authorization derives its permissibility from the U.N. Charter, which imposes certain limitations upon such use of force.[168]

Article 53 permits the UNSC to utilize regional arrangements or agencies for enforcement of its authority.[169] The regional agencies cannot act without UNSC authorization.[170] Article 41 authorizes the UNSC to use measures that fall short of the use of armed force, such as severing diplomatic ties and communications.[171] Article 42 allows the UNSC to take necessary military action to restore or maintain international peace, if the peaceful measures under Article 41 are inadequate.[172] Article 48 generally allows the U.N. to call upon member States to help enforce its decisions on maintenance of international peace and security.[173] Some scholars argue

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[154] E.g., S.C. Res. 836 (June 4, 1993); S.C. Res. 816 (Mar. 31, 1993); S.C. Res. 770 (Aug. 14, 1992).

[155] *See* S.C. Res. 794 (Dec. 3, 1992).

[156] S.C. Res. 929 (June 22, 1994).

[157] S.C. Res. 940 (July 31, 1994).

[158] S.C. Res. 1125 (Aug. 6, 1997).

[159] S.C. Res. 1080 (Nov. 15, 1996).

[160] S.C. Res. 1114 (June 19, 1997).

[161] S.C. Res. 1244 (June 10, 1999).

[162] S.C. Res. 1264 (Sept. 15, 1999)

[163] S.C. Res. 1386 (Dec. 20, 2001).

[164] S.C. Res. 1484 (May 30, 2003).

[165] S.C. Res. 1511 (Oct. 16, 2003).

[166] S.C. Res. 1528 (Feb. 27, 2004); S.C. Res. 1527 (Feb. 4, 2004); S.C. Res. 1464 (Feb. 4, 2003); *see also* CORTEN, *supra* note 60, at 312–314.

[167] CORTEN, *supra* note 60, at 312–314.

[168] *See* U.N. Charter arts. 27, 33, 34, 34, 36, 39, 41, 42, 48, and 53; CORTEN, *supra* note 60, at 316–27.

[169] U.N. Charter art. 53; *see also* H. EDSTRÖM & D. GYLLENSPORRE, POLITICAL ASPIRATIONS AND PERILS OF SECURITY: UNPACKING THE MILITARY STRATEGY OF THE UNITED NATIONS 32 (2013).

[170] Erika de Wet, *Regional Organizations and Arrangements: Authorization, Ratification, or Independent Action, in* THE OXFORD HANDBOOK OF THE USE OF FORCE IN INTERNATIONAL LAW 315 (Marc Weller, et al. eds., 2015).

[171] U.N. Charter, art. 41; ROB MCLAUGHLIN, UNITED NATIONS NAVAL PEACE OPERATIONS IN THE TERRITORIAL SEA 130 (2009).

[172] U.N. Charter, art. 42; ENABULELE & BAZUAYE, *supra* note 19, at 386.

[173] U.N. Charter, art. 48; *see also* Frank Berman, *in* THE U.N. SECURITY COUNCIL: FROM

that theoretically the true spirit of the Charter does not allow such delegation of powers. However, U.N. peacekeeping operations, including military action by "blue helmets," is found to be in conformity with the Charter.[174] No U.N. member State has questioned the delegation of military action by UNSC, since Article 42 is broad enough to allow such delegation of the use of force.[175] However, several States have raised a number of concerns about the legality of the authorizations of individual military interventions, arguing that certain UNSC interventions were carried out without fulfilling the legal requirements under the U.N. Charter.[176] The use of force is legal with UNSC authorization, but must fulfill all the conditions laid down under the law that validates it.[177]

The first condition for legal use of force under the U.N. Charter is a vote.[178] Article 27 of the Charter requires a majority of at least nine votes in favor of UNSC authorization,[179] including the affirmative votes of the five permanent Security Council members, who each have the power of veto against any authorization.[180]

The second condition under Article 42 of the U.N. Charter is that the UNSC must exhaust all peaceful means first, before resorting to the use of force against the sovereignty of a State.[181] Article 34 provides that if there is a possible threat to international peace the UNSC can investigate the situation.[182] Article 36 prescribes that the UNSC can make recommendations after conducting an investigation under Article 34.[183] It is only after the international peace has been actually breached that the

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THE COLD WAR TO THE 21ST CENTURY 157 (David M. Malone, ed., 2004) (describing what Article 48 of the U.N. Charter allows). The US invoked the Panama Canal treaty as the legal basis for its interventions. *See* Max Hilaire, INTERNATIONAL LAW AND THE UNITED STATES MILITARY INTERVENTION IN THE WESTERN HEMISPHERE 110 (Martinus Nijhoff Publishers 1997).

[174] CORTEN, *supra* note 60, at 315–16.

[175] *Id.* at 316; *see* U.N. Charter art. 42.

[176] *See* Mary E. O'Connell, *Peace Through Law and the Security Council: Modelling Law Compliance, in* STRENGTHENING THE RULE OF LAW THROUGH THE UN SECURITY COUNCIL 256-57 (Jeremy Farrall et al. eds., 2016).

[177] CORTEN, *supra* note 60, at 316.

[178] U.N. Charter, art. 27; Abstentation, Non-participation or Absence in Relation to Article 27, Paragraph 3, of the Charter, *in* U.N. Dep't. of Pol. Aff., *Repertoire of the Practice of the Security Council: Supplement 1989–1992*, at 91, U.N. Doc. ST/PSCA/1/Add.11 (2008).

[179] U.N. Charter, art. 27, ¶ 2.

[180] U.N. Charter, art. 27, ¶ 2.

[181] ENABULELE & BAZUAYE, *supra* note 19, at 386; *see* U.N. Charter art. 41, 42.

[182] U.N. Charter, art. 34.

[183] U.N. Charter art. 36; *see also* EDWARD C. LUCK, U.N. SECURITY COUNCIL: PRACTICE AND PROMISE 21 (2006).

UNSC can authorize a legal military intervention, taking action as necessary to restore the peace.[184]

The third condition for legal use of force is the actual breach of peace. Articles 33 and 39 set out this condition: there must have been a dispute, which has deteriorated and in which an act of aggression has led to a breach of international peace.[185] Internal matters within a State do not constitute a threat to international peace.[186] Article 2(7) of the U.N. Charter also prohibits U.N. intervention in the domestic matters of a State.[187] Even supposing those domestic matters threaten international peace, the UNSC is still limited to investigating the matter to make recommendations.[188] The UNSC did so in Myanmar, where it found gross human rights violations[189] that shocked the world in 2007,[190] 2009,[191] and 2017.[192] But the UNSC did not intervene because this incident was considered an internal or domestic matter and did not threaten international peace and security.[193] Similarly in

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[184] U.N. Charter, art. 2, ¶ 7 ("Nothing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state . . . "); Michael Bothe, *Security in International Law Since 1990, in* GLOBALIZATION AND ENVIRONMENTAL CHALLENGES: RECONCEPTUALIZING SECURITY IN THE 21ST CENTURY 476 (Hans Günter Brauch, et al. eds., 2008).

[185] *See* U.N. Charter, arts. 33, 39; CORTEN, *supra* note 60, at 317–18.

[186] *See* ERIKA DE WET, THE CHAPTER VII POWERS OF THE UNITED NATIONS SECURITY COUNCIL 138 (2004) ("In accordance with the negative definition, 'peace' is characterized by the absence of armed conflict between states."); *see also* CORTEN, *supra* note 60, at 317.

[187] U.N. Charter, art. 2, ¶ 7; *see also* AMAN M. HINGORANI, UNRAVELLING THE KASHMIR KNOT 80 (2016) (defining domestic jurisdiction in international law).

[188] *See* U.N. Charter, arts. 34, 36; ALINA KACZOROWSKA-IRELAND, PUBLIC INTERNATIONAL LAW 726 (5th ed., 2015).

[189] *See generally* I.C.J., ACHIEVING JUSTICE FOR GROSS HUMAN RIGHTS VIOLATIONS IN MYANMAR: BASELINE STUDY (2018), https://www.icj.org/wp-content/uploads/2018/01/Myanmar-GRA-Baseline-Study-Publications-Reports-Thematic-reports-2018-ENG.pdf.

[190] *See* JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH, *Human Rights Violations Widespread in Eastern Burma* (Oct. 5, 2007), https://www.jhsph.edu/news/news-releases/2007/mullany-burma.html.

[191] HUMAN RIGHTS WATCH, *Burma Events of 2009*, https://www.hrw.org/world-report/2010/country-chapters/burma.

[192] Meetings Coverage, Security Council, Security Council Must Demand Swift End to Atrocities in Rakhine State, Says Special Representative, Stressing "Inaction Is Not an Option," 8133rd Meeting SC/13117 (Dec. 12, 2017), https://www.un.org/press/en/2017/sc13117.doc.htm (last visited February 28, 2018); *see also*, May Bulman, *Burma: Rohingya Muslim Babies and Children "Being Slaughtered with Knives", U.N. warns*, INDEPENDENT (Feb. 3, 2017).

[193] Press Release, Security Council Fails to Adopt Draft Resolution On Myanmar, Owing to Negative Votes by China, Russian Federation, U.N. Press Release SC/8939 (Jan. 12, 2007), https://www.un.org/press/en/2007/sc8939.doc.htm; *see also*, Security Council-Veto List, http://research.un.org/en/docs/sc/quick (last visited Apr. 26, 2018) (showing China and Russia vetoed the draft resolution seeking to intervene in Myanmar).

Namibia, the U.S., the UK, and France vetoed UNSC intervention[194] on the basis that the occupation of Namibia did not threaten international peace.[195] Whereas, in the interventions in Haiti[196] and Somalia,[197] U.N. members argued that the UNSC interventions were authorized without an actual breach of international peace.[198]

UNSC authorization is broadly conferred through Article 42, which allows the UNSC to determine for itself what is a threat to international peace and what is not, and when to take appropriate military action.[199] The real aim of UNSC interventions is to restore peace and remove the threat of aggression.[200] For this reason, the UNSC can only use force to restore peace and security,[201] and it cannot use force against a State regarding internal matters[202] to restore democracy, police moral values, promote the economy, support social values, or enforce international law.[203]

By contrast, there are many examples where the UNSC violated the principle of nonintervention in internal matters under Article 2(7) of the U.N. Charter,[204] such as in the Korean War[205] and Rhodesia.[206] Similarly, it

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[194] Security Council, Guyana, Iraq, Mauritania, the United Republic of Cameroon and the United Republic of Tanzania, Draft Resolution, S/11713 (June 6, 1975); Security Council, U.N. Security Council Official Records 1829th mtg, S/PV.1829, ¶ 174 (June 6, 1975).

[195] *See* Problems of Boundaries and Security in the Helsinki Declaration: Volume 154 of *Recueil Des Cours,* Collected Courses, 1977, at 374 (1979); CORTEN, *supra* note 60, at 321.

[196] S.C. Res. 940 (July 31, 1994).

[197] Paul F. Diehl, *Paths to Peacebuilding: The Transformation of Peace Operations, in* CONFLICT PREVENTION AND PEACEBUILDING IN POST-WAR SOCIETIES: SUSTAINING THE PEACE 121 (T. David Mason et al. eds., 2006).

[198] *Id.* (arguing that Somalia was involved in a domestic conflict which did not pose a threat to international peace); *see* MAX HILAIRE, WAGING PEACE: THE UNITED NATIONS SECURITY COUNCIL AND TRANSNATIONAL ARMED CONFLICTS 68 (2015) (arguing that Haiti did not pose a threat to international peace).

[199] U.N. Charter art. 42; Jennifer M. Welsh, *The Security Council and Humanitarian Intervention, in* THE UNITED NATIONS SECURITY COUNCIL AND WAR: THE EVOLUTION OF THOUGHT AND PRACTICE SINCE 1945, at 35 (Vaughan Lowe et al. eds., 2010).

[200] GLOBALIZATION AND ENVIRONMENTAL CHALLENGES: RECONCEPTUALIZING SECURITY IN THE 21ST CENTURY 476 (Hans Günter Brauch et al., eds. 2008) [hereinafter GLOBALIZATION AND ENVIRONMENTAL CHALLENGES].

[201] *See* GLOBALIZATION AND ENVIRONMENTAL CHALLENGES , *supra* note 200, at 476.

[202] See Article 2(7), The U.N. Charter for the principle of nonintervention in internal matters.

[203] CORTEN, *supra* note 60, at 322.

[204] See Article 2(7), The U.N. Charter for the principle of nonintervention in internal matters.

[205] THE LAW OF ARMED CONFLICT AND THE USE OF FORCE: THE MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW 625 (Frauke Lachenmann & Rüdiger Wolfrum eds. 2017).

[206] SYDNEY BAILEY, THE U.N. SECURITY COUNCIL AND HUMAN RIGHTS 3 (2016).

is noted that the UNSC has authorized interventions without actual breaches of international peace when dealing with the internal affairs of other States.[207] For example, UNSC authorizations in Bosnia-Herzegovina,[208] Somalia,[209] and Rwanda[210] were for humanitarian purposes;[211] in Albania[212] it was for state restructuring;[213] in Haiti,[214] the Central African Republic,[215] Congo,[216] and Cote d'Ivoire[217] it was for the enforcement of agreements;[218] and in Bosnia-Herzegovina,[219] Kosovo,[220] Afghanistan,[221] and Iraq[222] it was for postwar situations.[223]

As a result, a majority of U.N. members have raised their concerns that the UNSC is readily using force against States by intervening in their internal affairs without the existence of an actual breach of international peace.[224] However, under Article 51,[225] the Charter is very clear that it is the UNSC itself that decides when and where to act according to its own judgment.[226] UNSC interventions do enjoy a legal basis under the U.N. Charter.[227] Nonetheless, States are collectively proposing to restrain the broadness of UNSC authorizations by acknowledging that a number of

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[207] Erika De Wet & André Nollkaemper, Review of the Security Council by Member States 35 (2003).

[208] See Wet & Nollkaemper, *supra* note 207, at 35, to see how the UNSC intervened in the internal matters of Bosnia. *See Also*, UNSC res 1031 (1995)."

[209] *See* Wet & Nollkaemper, *supra* note 207, at 35, to see how the UNSC intervened in the internal matters of Somalia. *See Also*, Two resolutions: UNSC res 794 (1992) and UNSC res 814 (1993).

[210] *See*, UNSC res 929 (1994).

[211] DAVID S. SORENSON & PIA CHRISTINA WOOD, THE POLITICS OF PEACEKEEPING IN THE POST-COLD WAR ERA 3 (2014). *See also* ESREF AKSU, THE UNITED NATIONS, INTRA-STATE PEACEKEEPING AND NORMATIVE CHANGE 155 (2003).

[212] *See*, UNSC res 1114 (1997).

[213] SIMON CHESTERMAN, JUST WAR OR JUST PEACE?: HUMANITARIAN INTERVENTION AND INTERNATIONAL LAW 149 (2001).

[214] *See*, UNSC res 940 (1994).

[215] *See*, UNSC res 1125 (1995).

[216] *See*, UNSC res 1484 (2003).

[217] *See* UNSC res 1528 (2004); UNSC res 1527 (2004); UNSC res 1464 (2003).

[218] CORTEN, *supra* note 60, at 312-14.

[219] *See* UNSC res 1031 (1995).

[220] *See* Wet & Nollkaemper, *supra* note 207, at 35 (clarifying how the UNSC intervened in the internal matters of Kosovo). *See also* UNSC res 1244 (1999).

[221] *See* UNSC res 1286 (2001).

[222] *See* UNSC res 1511 (2003).

[223] CORTEN, *supra* note 60, at 312-14.

[224] *See* Wet & Nollkaemper, *supra* note 207, at 35.

[225] U.N. Charter art. 51.

[226] NIGEL D. WHITE & CHRISTIAN HENDERSON, RESEARCH HANDBOOK ON INTERNATIONAL CONFLICT AND SECURITY LAW 220 (2013).

[227] *See* U.N. Charter arts. 41, 42, & 51; *see also* Sklerov, *supra* note 46, at 49.

military interventions, such as the 1991 intervention in Iraq, were in violation of the U.N. Charter.[228] Yet, it is practically unimaginable that the UNSC would be sanctioned for overstepping its powers.[229] To conclude, the use of force following UNSC authorization is legal under the U.N. Charter[230] but the Charter itself limits the circumstances where such military actions are justified.[231] For instance, UNSC authorization needs nine majority votes without a single negative vote from the permanent members.[232] Such authorizations must be aimed to restore international peace as a counteraction against actual aggression or a breach of international peace,[233] and after exhausting all possible peaceful means.[234] Intervening for humanitarian purposes, restoring democracy, establishing the economy, and policing social and moral values do not come under the scope of UNSC intervention.[235] Hitherto, under Article 39,[236] only the UNSC can determine that there has been a threat to peace.[237] Therefore, all actions taken by UNSC authorization are technically legal actions under international law of using force. Howard Friel and Noam Chomsky[238] see invasions without self-defense or without U.N. authorization, such as the U.S. invasion of Iraq, as the unlawful use of force.[239]

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[228] CORTEN, *supra* note 60, at 312-14.

[229] *Id.* at 326.

[230] *See* U.N. Charter arts. 41, 42, & 51; *see also* Sklerov, *supra* note 46, at 49.

[231] *See* U.N. Charter arts. 27, 33, 34, 36, 39, 41, 42, 48, & 53. *See also* CORTEN, *supra* note 60, at 316–17.

[232] UNITED NATIONS. DEPARTMENT OF POLITICAL AFFAIRS, REPERTOIRE OF THE PRACTICE OF THE SECURITY COUNCIL: SUPPLEMENT 1989–1992, at 91 (2008). *See also* U.N. Charter art. 27; DAVID S. BERRY, CARIBBEAN INTEGRATION LAW 71 (2014).

[233] GLOBALIZATION AND ENVIRONMENTAL CHALLENGES, *supra* note 200, at 476. *See also* Article 2(7), The U.N. Charter for the principle of nonintervention in internal matters.

[234] AMOS ENABULELE & BRIGHT BAZUAYE, TEACHINGS ON BASIC TOPICS IN PUBLIC INTERNATIONAL LAW 386 (2014). *See also* U.N. Charter arts. 41, 42.

[235] CORTEN, *supra* note 60, at 322.

[236] U.N. Charter art. 39.

[237] DIMITRIS BOURANTONIS, KOSTAS IFANTIS, & PANAYOTIS TSAKONAS, MULTILATERALISM AND SECURITY INSTITUTIONS IN AN ERA OF GLOBALIZATION 295 (2007). *See also* U.N. Charter art. 39.

[238] Chomsky is an "American linguist, cognitive scientist, historian, social critic, and political activist". Chomsky is also a polymath and is considered one of the best minds of our times. He has written more than 100 books.

[239] *See* HOWARD FRIEL, CHOMSKY AND DERSHOWITZ: ON ENDLESS WAR AND THE END OF CIVIL LIBERTIES 35-41 (Interlink Pub Group 2013).

D. Notions of Proportionality, Necessity, and Distinction

The use of force is legal under the right to self-defense,[240] invitation,[241] and UNSC authorization.[242] But any use of force, to be legal, must follow the humanitarian laws of using force, known as *jus in bello*.[243] *Jus in bello* describes the laws of war, that is, how to conduct the use of force.[244] The most notable doctrines within *jus in bello* are the principles of proportionality, necessity, and distinction.[245] Breaches of these principles under international humanitarian laws (IHL)[246] are considered war crimes under customary international law.[247]

Firstly, the principle of necessity under IHL entails that military action should only be taken when it is absolutely necessary.[248] This means that the use of force must be the last resort to end the aggression,[249] where military action is only undertaken when all other peaceful means[250] have been exhausted.[251] In the famous *Oil Platform* case,[252] the ICJ noted that U.S.

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[240] Article 51, The U.N. Charter. *See also Nuclear Advisory Opinion*, ICJ (1996); GEERT-JAN A. KNOOPS, LAW ENFORCEMENT WITHIN THE FRAMEWORK OF PEACE SUPPORT OPERATIONS 3 (Roberta Arnold, 2008); PADDEU, *supra* note 108, at 213 (Larissa van den Herik et al. eds. 2018); RAPOPORT, *supra* note 99, at 20.

[241] Stephen Mathias, *The Use of Force: The General Prohibition and Its Exceptions in Modern International Law and Practice*, *in* A NEW INTERNATIONAL LEGAL ORDER: IN COMMEMORATION OF THE TENTH ANNIVERSARY OF THE XIAMEN ACADEMY OF INTERNATIONAL LAW 81 (Chia-Jui Cheng ed. 2016). *See also* Williamson, *supra* note 88; CORTEN, *supra* note 60, at 256.

[242] JEFFREY CARR, INSIDE CYBER WARFARE: MAPPING THE CYBER UNDERWORLD 49 (O'Reilly Media 2011). *See also* U.N. Charter. art. 41, 42, & 52,

[243] JENS D. OHLIN, THEORETICAL BOUNDARIES OF ARMED CONFLICT AND HUMAN RIGHTS 252 (Larry May et al. eds., 2016).

[244] François Bugnion, *Jus Ad Bellum, Jus In Bello And Non-International Armed Conflicts*, INT'L COMM. OF THE RED CROSS (October 28, 2004). https://www.icrc.org/eng/assets/files/other/jus_ad_bellum,_jus_in_bello_and_non-international_armed_conflictsang.pdf.

[245] NEWTON & MAY, *supra* note 105, at 68.

[246] To see how IHL comprises *jus in bello* and the principles of necessity, proportionality, and distinction, see ATROCITIES, MASSACRES, AND WAR CRIMES: AN ENCYCLOPEDIA 309 (Alexander Mikaberidze ed., 2013).

[247] ROBERT CRYER ET AL., AN INTRODUCTION TO INTERNATIONAL CRIMINAL LAW AND PROCEDURE 273 (Cambridge Univ. Press 2010).

[248] MICHAEL N. SCHMITT & LOUISE ARIMATSU, YEARBOOK OF INTERNATIONAL HUMANITARIAN LAW 274 (Springer Sci. & Bus. Media 2012).

[249] Mary E. O'Connell, *The Limited Necessity of Resort to Force, in* IMAGINING LAW: ESSAYS IN CONVERSATION WITH JUDITH GARDAM 45 (Dale Stevens et al. eds., 2016).

[250] WASEEM AHMAD QURESHI, JUST WAR THEORY AND EMERGING CHALLENGES IN AN AGE OF TERRORIS 167–168 (Nat'l Book Foundation 2017) [hereinafter QURESHI, JUST WAR].

[251] *See* O'Connell, *supra* note 249, at 45.

[252] *Oil Platform Case*, ICJ (2003).

military action against Iran was not necessary and therefore not a legal use of force.[253]

Secondly, the principle of proportionality under IHL means that the legal use of force must be proportional to the use of force under the aggression.[254] This means that no excessive force may be employed beyond what is necessary[255] to end the aggression.[256] For instance, if using one missile can repel an aggression, using nuclear weapons to wipe out an entire country is not necessary or proportionate.[257] Hence, nonproportionate and unnecessary use of force is also considered unlawful by the ICJ.[258] The principle of proportionality is protected under the Amended Protocol II to the Convention on Certain Conventional Weapons, under the Statute of the International Criminal Court,[259] and by the ICJ in the *Nicaragua* case.[260] This means that the civilian casualties must not disproportionately exceed the military goals needed to restore peace.[261]

Lastly, the notion of distinction under IHL protects civilians during an armed conflict.[262] This principle requires both parties not to target civilians during military action.[263] In the *Advisory Opinion of Threat or Use of Nuclear Weapons*, the ICJ upheld the principle of distinction.[264] But the

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[253] MICHAEL J. MATHESON, INTERNATIONAL CIVIL TRIBUNALS AND ARMED CONFLICT 265 (Martinus Nijhoff Publishers 2012). *See also Oil Platform Case*, ICJ (2003).

[254] NEWTON & MAY, *supra* note 105, at 67, 185.

[255] UGO PAGALLO, THE LAWS OF ROBOTS: CRIMES, CONTRACTS, AND TORTS 63 (Springer, 2013).

[256] *See* NEWTON & MAY, *supra* note 105, at 67, 185. *See also* Nicaragua v. U.S., ICJ (1986).

[257] RAJIV NAYAN, THE NUCLEAR NON-PROLIFERATION TREATY AND INDIA 82 (Routledge, 2013).

[258] Sonia Boulos & Javier B. Azcoiti, *Combating Terrorism and Triializing War: A Critical Reflection, in* SECURITY IN INFRASTRUCTURES 138 (J. Martin Ramirez et al. eds., 2016). *See also* Nicaragua v. U.S., 1986 I.C.J. 94, paras. 194-95, 247.

[259] JEAN-MARIE HENCKAERTS & LOUISE DOSWALD-BECK, INTERNATIONAL COMMITTEE OF THE RED CROSS, CUSTOMARY INTERNATIONAL HUMANITARIAN LAW: VOLUME 1: RULES 47 (Cambridge Univ. Press 2005).

[260] NEWTON & MAY, *supra* note 105, at 67, 185. *See generally* Nicaragua v. U.S., 1986 I.C.J. 94,.

[261] INGRID DETTER, THE LAW OF WAR 192 (Ashgate Publishing 2013). *See also* Nicaragua v. U.S., 1986 I.C.J. 94, paras. 194-95, 247; Common Article 3, *Geneva Convention*, 1949.

[262] ANICEE VAN ENGELAND, CIVILIAN OR COMBATANT?: A CHALLENGE FOR THE 21ST CENTURY 28 (Oxford Univ. Press 2011).

[263] *See* ENGELAND, *supra* note 262, at 28.

[264] Susan Breau, *Civilian Casualties and Nuclear Weapons: The Application of the Rule of Distinction, in* NUCLEAR NON-PROLIFERATION IN INTERNATIONAL LAW: VOLUME 1 106 (Jonathan L. Black-Branch et al. eds., 2014). *See also Advisory Opinion, Legality of the Threat or Use of Nuclear Weapons*, ICJ (1996).

governing law for the notion of distinction is under Article 48 of Additional Protocol I of 1977,[265] which reads:

> *The parties to the conflict at all times distinguish between the civilian population and the combatants and between the civilian objects and the military objects and accordingly shall direct their operations only against military objectives.*[266]

Moreover, Article 13 of Additional Protocol II reads:

> *The civilian population as such, as well as individual civilians, shall not be the object of attack. Acts or threats of violence the primary purpose of which is to spread terror among the civilian population are prohibited.*[267]

Consequently, under IHL, the legal use of force must follow the principles of necessity, proportionality,[268] and distinction.[269] Military action must only be taken after exhausting all possible peaceful[270] means.[271] It must not exceed in casualties and destruction beyond what is necessary and proportional as a counterattack against the armed aggression.[272] Moreover, both sides of the conflict must also make distinction between civilians and combatants;[273] targeting civilians is prohibited.[274]

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[265] Emily Crawford, *The principle of distinction and remote warfare, in* RESEARCH HANDBOOK ON REMOTE WARFARE 55 (Jens D. Ohlin ed., 2017). *See also* Article 48, *Additional Protocol I*, Geneva Convention (1977).

[266] Christine Van den Wijngaert, INTERNATIONAL CRIMINAL LAW: A COLLECTION OF INTERNATIONAL AND EUROPEAN INSTRUMENTS 472 (Martinus Nijhoff Publishers 2005). *See also* Article 48, *Additional Protocol I*, Geneva Convention (1977).

[267] MIRIAM BRADLEY, PROTECTING CIVILIANS IN WAR: THE ICRC, UNHCR, AND THEIR LIMITATIONS IN INTERNAL ARMED CONFLICTS 71 (Oxford Univ. Press 2016). *See also* Article 13, *Additional Protocol II*, Geneva Convention (1977).

[268] Boulos & Azcoiti, *supra* note 258, at 138. *See also* Nicaragua v. U.S., 1986 I.C.J. 94.

[269] ENGELAND, *supra* note 262, at 28. *See also* Breau, *supra* note 264, at 106; *Advisory Opinion, The Threat of Nuclear Weapons*, ICJ (1996); Jens David Ohlin, Research Handbook on Remote Warfare, 55 (EDWARD ELGAR PUBLISHING, 2017). *See Also*, Article 48, *Additional Protocol I* (1977).

[270] Qureshi, *Just War, supra* note 250, at 167–68.

[271] O'Connell, *supra* note 176.

[272] NEWTON & MAY, *supra* note 105, at 67, 185. *See also* Nicar. v. U.S., 1986 I.C.J.; PAGALLO, *supra* note 255.

[273] HENCKAERTS & DOSWALD-BECK, *supra* note 259, at 3.

[274] Crawford, *supra* note 265. *See also* Additional Protocol II, *supra* note 267; Additional Protocol I, *supra* note 265; BRADLEY, *supra* note 267; Wijngaert, *supra* note 266.

III. OTHER JUSTIFICATIONS FOR THE USE OF FORCE

Other justifications to use force under customary international law and theoretical law include use of force under "anticipatory self-defense,"[275] the "responsibility to protect,"[276] and the "unwilling or unable test,"[277] which are discussed, respectively, in Sections 3.1, 3.2, and 3.3.

A. Use of Force under Anticipatory Self-Defense[278]

Anticipatory or preventive self-defense is a principle under customary international law where states argue that their use of force in the absence of an armed attack is legal because they were facing an imminent threat of an armed attack.[279] In this practice, one state preemptively uses force against another in order to neutralize a future but imminent attack before the enemy crosses the border.[280] Professor Ian Brownlie argued that notion of anticipatory self-defense (ASD) violates the U.N. Charter and goes against its very principles.[281] For example, Article 51 expresses that the right of self-defense arises when "armed attack occurs";[282] but ASD justifies the preemptive use of force without the occurrence of an actual armed attack.[283] Another issue with ASD is that there is no test that can accurately evaluate the actual imminence of an attack, which means that only the state invoking ASD can determine the existence of any imminent attack.[284] Therefore,

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[275] CARR, *supra* note 242, at 51.

[276] MICHAEL P. SCHARF, CUSTOMARY INTERNATIONAL LAW IN TIMES OF FUNDAMENTAL CHANGE: RECOGNIZING GROTIAN MOMENTS 178 (2013).

[277] Ashley S. Deeks, *Unwilling or Unable: Toward a Normative Framework for Extraterritorial Self-Defense*, 52 VA. J. INT'L L. 483 (2012). *See also* WASEEM AHMAD QURESHI, THE USE OF FORCE IN INTERNATIONAL LAW 88–91 (2017).

[278] SHIRLEY V. SCOTT, ANTHONY JOHN BILLINGSLEY, & CHRISTOPHER MICHAELSEN, INTERNATIONAL LAW AND THE USE OF FORCE: A DOCUMENTARY AND REFERENCE GUIDE 136 (2009).

[279] CARR, *supra* note 242, at 51.

[280] *Id.*

[281] NATHAN E. BUSCH & DANIEL JOYNER, COMBATING WEAPONS OF MASS DESTRUCTION: THE FUTURE OF INTERNATIONAL NONPROLIFERATION POLICY 186 (Univ. of Georgia Press, 2009). *See also* MURRAY COLIN ALDER, THE INHERENT RIGHT OF SELF-DEFENCE IN INTERNATIONAL LAW 102 (2012).

[282] *See* U.N. Charter art. 51.

[283] MARY ELLEN O'CONNELL, THE POWER AND PURPOSE OF INTERNATIONAL LAW 173 (2008).

[284] Elizabeth S. Wilmshurst, *Anticipatory Self-Defense Against Terrorists*, *in* COUNTER-TERRORISM STRATEGIES IN A FRAGMENTED INTERNATIONAL LEGAL ORDER: MEETING THE CHALLENGES 357 (Herik & Schrijver eds., 2013).

scholars argue that there is room for abuse of power under ASD.[285] On the other side, Sir Derek William Bowett supports ASD on theoretical grounds and argues that tests like the *Caroline* test can be used to determine the necessity of preemptive attack in ASD.[286]

Nevertheless, in practice, neither the global community[287] nor the UNSC[288] has accepted ASD as a valid justification to use force.[289] In the Osirak Nuclear Attack against Iraq, Israel argued that it had acted in ASD to thwart the imminent armed attack, and it only used force preemptively to defend itself.[290] The UNSC unanimously condemned the Israeli actions and maintained that it had violated the U.N. Charter because there was no actual armed attack by Iraq against the sovereignty of Israel.[291] Condemnation of Israeli attacks by the U.S., the UK, and the UNSC,[292] coupled with the fact that states are reluctant to rely upon ASD as a legal justification for their use of force in practice, establish that ASD is just a theoretical ground to justify the illegal use of force in violation of the U.N. Charter.[293]

B. Use of Force under the Responsibility to Protect (R2P)

The "responsibility to protect (R2P)" is a principle to justify the use of force under international law as well as under customary international law.[294] Yet, it is not explicitly included in any written international law, and it lacks *opinio juris* and state practice.[295] Therefore, critics of R2P argue that, without U.N. authorization or conformity with the U.N. Charter, it cannot be truly considered a legal principle under international law.[296]

Nevertheless, R2P has a three-layered responsibility.[297] In the first layer, it is the responsibility of a state to protect its own citizens against

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[285] *Id.*

[286] ALDER, *supra* note 281.

[287] RACHEL BZOSTEK, WHY NOT PREEMPT?: SECURITY, LAW, NORMS AND ANTICIPATORY MILITARY ACTIVITIES 227 (2013).

[288] BELINDA HELMKE, UNDER ATTACK: CHALLENGES TO THE RULES GOVERNING THE INTERNATIONAL USE OF FORCE 154 (2016).

[289] *See* Bzostek, *supra* note 287; *see also* Helmke, *supra* note 288.

[290] *See* Helmke, *supra* note 288.

[291] *Id.*

[292] SCOTT ET AL., *supra* note 278.

[293] *See id.*

[294] *See* SCHARF, *supra* note 276, at 178.

[295] William W. Burke-White, *Adoption of the Responsibility to Protect*, *in* THE RESPONSIBILITY TO PROTECT: THE PROMMISE OF STOPPING MASS ATROCITIES IN OUR LIFETIME 34 (Jared Genser & Irwin Cotler eds., 2012).

[296] *See id.*

[297] Alex J. Bellamy, *The Private Sector and Atrocities Prevention*, *in* THE ROLE OF BUSINESS IN THE RESPONSIBILITY TO PROTECT 208 (Forrer & Seyle eds., 2016) [hereinafter

"genocide, war crimes, ethnic cleansing and crimes against humanity."[298] Developing and undeveloped nations lack the resources to protect their citizens.[299] Accordingly, in the second layer, it is the responsibility of other states to assist each other in protecting citizens.[300] Lastly, in the third layer, it is the responsibility of the international community to protect citizens against these crimes.[301]

Under R2P, using force is legal.[302] But, legally, this force has to be used either by the permission of a state to help it protect its citizens, or through a mandate of the UNSC.[303] Otherwise, any use of force, even through R2P, is illegal under international law.[304] There are several cases where the UNSC has authorized use of force while upholding the principle of R2P.[305] For example, the UNSC upheld the principle of R2P in Resolutions 1674 (2006), 1894 (2009), 1996 (2011), 2014 (2011), 2085 (2012), 2117 (2013), 2121 (2013), 2139 (2014), 2149 (2014), and 2150 (2014).[306] These resolutions were passed to assist governments to fulfill their R2P, to condemn the nonfulfillment of R2P, and to authorize the use of force through peacekeeping missions against governments infringing the principle of R2P.[307] The UNSC also used R2P to authorize the use of force against Libya through Resolutions 1970 and 1973 against legitimate governments.[308] Similarly, the UNSC mandated the use of force in Cote

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Bellamy, *Private Sector*].

[298] ALEX J. BELLAMY, THE RESPONSIBILITY TO PROTECT: A DEFENSE, 2 (2015) [hereinafter BELLAMY, RESPONSIBILITY TO PROTECT].

[299] Edwin Egede, Politics of International Law and International Justice, 161 (EDINBURGH UNIVERSITY PRESS, 2013).

[300] Bellamy, *Private Sector*, *supra* note 297. *See also* ALAN BLOOMFIELD, INDIA AND THE RESPONSIBILITY TO PROTECT (2016); Sara E. Davies & Luke Glanville, *Introduction* to PROTECTING THE DISPLACED: DEEPENING THE RESPONSIBILITY TO PROTECT 5 (Davies & Granville eds., 2010); ALEX J. BELLAMY & TIMOTHY DUNNE, THE OXFORD HANDBOOK OF THE RESPONSIBILITY TO PROTECT 145 (Bellamy & Dunne eds., 2016) [hereinafter BELLAMY, THE OXFORD HANDBOOK OF R2P].

[301] Bellamy, *Private Sector*, *supra* note 297. *See also* Raphaël Van Steenberghe, *Non-State Actors*, *in* AN INSTITUTIONAL APPROACH TO THE RESPONSIBILITY TO PROTECT 49 (Gentian Zyberi ed., 2013).

[302] *See* SCHARF, *supra* note 276.

[303] Brian L. Job & Anastasia Shesterinina, *China as a Global Norm-Shaper: Institutionalization and Implementation of the Responsibility to Protect*, *in* IMPLEMENTATION AND WORLD POLITICS: HOW INTERNATIONAL NORMS CHANGE PRACTICE 156 (Alexander Betts & Phil Orchard eds., 2014).

[304] *Id.*

[305] BELLAMY, RESPONSIBILITY TO PROTECT, *supra* note 298, at 7–11.

[306] *Id.*

[307] *Id.*

[308] JUSTICE AND DIPLOMACY: RESOLVING CONTRADICTIONS IN DIPLOMATIC PRACTICE AND INTERNATIONAL HUMANITARIAN LAW 101 (Mark S. Ellis, Yves Doutriaux, & Timothy W.

d'Ivoire through Resolution 1975.[309] Critics saw these as political maneuvers to effect regime change, rather than as acts of R2P to protect humanity.[310] They backed up their argument by stating that these instances had caused more harm than good[311] because they disproportionally increased human suffering owing to the excessive use of force; human suffering was aggravated rather than alleviated.[312] They also argue that the UNSC ignored peaceful means to resolve conflicts[313] and that humanitarian interventions are a tactic for powerful states to interfere in the internal matters of the weaker states.[314]

Interestingly, there have been several instances where R2P has increased human suffering, rather than alleviated it.[315] Moreover, there have also been instances where R2P has utterly failed to act against human suffering.[316] For instance, the UNSC has failed to act to protect civilians against crimes from their own governments in Darfur[317] and Myanmar.[318] These failed instances are seen as R2P test cases, where the principle of R2P failed to function.[319] In the early twenty-first century, the Sudanese government and its allies used force in Darfur, whereby it killed 300,000 people and displaced 3,000,000.[320] Similarly, R2P also failed in Myanmar,[321] where the whole world was shocked to see the brutality of ethnic cleansing against Muslims,[322] but the UNSC did not act[323] to protect

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Ryback eds., 2018).

[309] ROBERT SCHÜTTE, CIVILIAN PROTECTION IN ARMED CONFLICTS: EVOLUTION, CHALLENGES AND IMPLEMENTATION 183 (2014).

[310] *Id.*

[311] *See* BELLAMY, RESPONSIBILITY TO PROTECT, *supra* note 298, at 7–11; *see also* SCHÜTTE, *supra* note 309.

[312] Jonathan Graubart, *War Is Not the Answer: The Responsibility to Protect Military Intervetion*, in THEORISING THE RESPONSIBILITY TO PROTECT 206 (Ramesh Thakur & William Maley eds., 2015).

[313] *See* BELLAMY, RESPONSIBILITY TO PROTECT, *supra* note 298, at 7–11. *See also*, JOSHUA JAMES KASSNER, RWANDA AND THE MORAL OBLIGATION OF HUMANITARIAN INTERVENTION 147 (2013).

[314] KASSNER, *supra* note 313.

[315] Graubart, *supra* note 312.

[316] MEHARI FISSEHA, RESPONSIBILITY TO PROTECT: HUMANITARIAN INTERVENTION IN AFRICA 37 (2016).

[317] *See id.*

[318] Alex J. Bellamy, Global Politics and the Responsibility to Protect: From Words to Deeds, 68.

[319] BELLAMY, THE OXFORD HANDBOOK OF R2P, *supra* note 356, at 724.

[320] 155 CONG. REC. S19,617 (daily ed. July 28, 2009) (statement of Del. Faleomavaega).

[321] ALEX J. BELLAMY, GLOBAL POLITICS AND THE RESPONSIBILITY TO PROTECT: FROM WORDS TO DEEDS, 68 (2010) [hereinafter BELLAMY, GLOBAL POLITICS].

[322] *See* ICJ GLOBAL REDRESS & ACCOUNTABILITY INITIATIVE, ACHIEVING JUSTICE FOR GROSS HUMAN RIGHTS VIOLATONS IN MYANMAR 3 (2018), https://www.icj.org/wp-

humanity, arguing that it was an internal matter for Myanmar.[324] Alex J. Bellamy has produced a whole list, in a chapter relying on the works of Professor Noam Chomsky,[325] of instances of "double standards," where R2P and the UNSC failed to act and protect civilians from the atrocities from their own governments, resulting in millions of people dying and more being displaced.[326]

Consequently, nations around the world have taken upon themselves the responsibility to protect humanity through military alliances like the North Atlantic Treaty Organization (NATO)—without a UNSC mandate—to help or protect humanity.[327] For example, NATO forces intervened in Kosovo in 1999 without UNSC authorization.[328] However, such presumed responsibility without a UNSC mandate is seen as an illegal use of force under international law,[329] and has also been widely condemned by the international community.[330] The use of force under R2P can be considered humanitarian intervention. However, such force is illegitimate if it is not in conformity with Articles 2(4) and 51 of the U.N. Charter or if it is

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content/uploads/2018/01/Myanmar-GRA-Baseline-Study-Publications-Reports-Thematic-reports-2018-ENG.pdf; *see also* Human Rights Violations Widespread in Burma, JOHN HOPKINS BLOOMBERG SCHOOL OF PUB. HEALTH (Oct. 5, 2007), https://www.jhsph.edu/news/news-releases/2007/mullany-burma.html; Burma Events of 2009, HUMAN RIGHTS WATCH (Jan. 2010), https://www.hrw.org/world-report/2010/country-chapters/burma; Meetings Coverage, Security Council, Security Council Must Demand Swift End to Atrocities in Rakhine State, Says Special Representative, Stressing 'Inaction Is Not an Option,' U.N. Meetings Coverage SC/13117 (Dec. 12, 2017); May Bulman, Burma: Rohingya Muslim Babies and Children 'being slaughtered with knives', UN Warns, INDEP. (Feb. 3, 2017), https://www.independent.co.uk/news/world/asia/burma-rohingya-muslim-babies-children-slaughtered-knives-massacre-genocide-un-warns-a7561711.html.

[323] Press Release, Security Council, Security Council Fails to Adopt Draft Resolution on Myanmar, Owing to Negative Votes by China, Russian Federation, U.N. Press Release SC/8939 (Jan. 12, 2007). *See also* SECURITY COUNCIL - VETO LIST, http://research.un.org/en/docs/sc/quick (showing that China and Russia vetoed a draft resolution seeking to intervene in Myanmar to address humanitarian concerns).

[324] Press Release, *supra* note 193; Philippe Bolopion, *How Long Will U.N. Security Council Be Missing in Action on Burma?* HUMAN RIGHTS WATCH (Nov. 1, 2017, 4:20 PM), https://www.hrw.org/news/2017/11/01/how-long-will-un-security-council-be-missing-action-burma. CORTEN, *supra* note 60, at 321 (discussing the UNSC's waivering policy as to whether human rights violations are strictly internal matters); Press Release, *supra* note 323.

[325] BELLAMY, RESPONSIBILITY TO PROTECT, *supra* note 298, at 134–49.

[326] *Id.*

[327] BETCY JOSE, NORM CONTESTATION: INSIGHTS INTO NON-CONFORMITY WITH ARMED CONFLICT NORMS 83 (2017).

[328] *Id.*

[329] *See id.*

[330] *See* CORTEN, *supra* note 60, at 542–43; *see also* JOSE, *supra* note 327, at 83.

undertaken without UNSC authorization.[331] By condemning humanitarian intervention, the ICJ[332] noted that "the use of force could not be [an] appropriate method to monitor or ensure such respect."[333] Similarly, the ICJ also noted that the use of force in Yugoslavia by NATO under a humanitarian pretext was illegal,[334] and that the ICJ is "itself profoundly concerned with the use of force in Yugoslavia, which under the present circumstances raises very serious issues of international law."[335] Therefore, irrefutably, any use of force under the pretext of R2P,[336] if undertaken without the justification of self-defense or U.N. authorization, will be considered an unlawful use of force under international law.[337]

So, categorically, if we apply the principle of R2P in the Syrian crisis, we can analyze the legality of the use of force by the U.S. in Syria or the effects of using UNSC-authorized intervention. So, if the UNSC authorizes military intervention in Syria based on the principle of R2P, it must have no negative votes from the permanent five to be considered legal.[338]

C. Use of Force under the Unwilling or Unable Test

The "unwilling or unable test" is a theoretical framework based upon hypothetical guidelines by Ashley Deeks[339] to justify the use of force by a victim state against the armed attack by an NSA residing in the territories of another state (hereinafter "host state" for the purposes of the unable and unwilling test).[340] If a victim state has been attacked by an NSA—for instance, by terrorist groups like ISIS—it can under this test use force

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[331] Genser & Cotler, *supra* note 295, at 34; *see*, CORTEN, *supra* note 60, at 542–43; *see also* JOSE, *supra* note, 327, at 83.

[332] Nicaragua v. U.S., ICJ (1986).

[333] GRAY, *supra* note 122, at 41 (internal quotation marks omitted).

[334] ANA S. TRBOVICH, A LEGAL GEOGRAPHY OF YUGOSLAVIA'S DISINTEGRATION 355 (2008) (internal quotation marks and ellipsis omitted).

[335] ANA S. TRBOVICH, A LEGAL GEOGRAPHY OF YUGOSLAVIA'S DISINTEGRATION 355 (2008) (internal quotation marks and ellipsis omitted).

[336] *Job & Shesterinina*, *supra* note 303. *See also* JOSE, *supra* note 327; GENSER & COTLER, *supra* note 295; CORTEN, *supra* note 60, at 542–43.

[337] *Job & Shesterinina*, *supra* note 303. *See also* JOSE, *supra* note 327; GENSER & COTLER, *supra* note 295; CORTEN, *supra* note 60, at 542–43.

[338] U.N. Dep't of Pol. Aff., *Repertoire of the Practice of the Security Council: Supplement 1989–1992*, U.N. Doc. ST/PSCA/1/Add.11, at 91 (2007). *See also* U.N. Charter art. 27; DAVID S. BERRY, CARIBBEAN INTEGRATION LAW, 71 (2014) (describing the process of voting and stating "that if one member state casts a negative vote, or veto, the decision cannot pass").

[339] *See generally* Deeks, *supra* note 277.

[340] *See* QURESHI, *supra* note 277, at 88–91.

against the host state in self-defense.[341] But, to legally use force against an NSA in the territory of a host state, the victim state must follow certain guidelines.[342]

Firstly, the victim state must seek the consent of the host state to use force against the NSA to curb future attacks.[343] Secondly, the victim state must gauge the risk capacity of future attacks.[344] Thirdly, the victim state must give a timeframe for the host state to curb these activities on its own.[345] Fourthly, the victim state must evaluate the ability of the host state to curb these attacks.[346] And, lastly, the victim state must make a decision about whether to conduct a military intervention in the territories of a host state by considering the political relationship with the host state, the level of cooperation by the host state, and the viability and consequences of this military intervention.[347]

It is pertinent to note here that the "unwilling or unable test" also requires that there must be an armed attack by NSA in order to give rise to right to self-defense of a victim state to use force.[348] Therefore, it is only reasonable to seek the consent of the host state to use force against NSA. But critics of using force against NSAs argue that doing so without the consent of the host state is equivalent to using force against the territorial integrity of the host state.[349] Therefore, if the host state is not responsible for any attack, the victim state may seek relief through the UNSC, by asking the host state to curb these activities, or by asking the consent of host state to use force against the NSA.

In this understanding, if we analyze the situations in Syria, the U.S. is directly using force against Syria[350] without any actual armed attack against its own territory[351] or UNSC authorization,[352] as proved by its missile

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[341] *See id.*

[342] Deeks, *supra* note 277, at 483. *See also* QURESHI, *supra* note 277, at 88–91.

[343] *See* QURESHI, *supra* note 277, at 103.

[344] Deeks, *supra* note 277, at 51. *See also* QURESHI, *supra* note 277, at 103–04.

[345] *See also* QURESHI, *supra* note 277, at 104.

[346] Deeks, *supra* note 277, at 523. *See also* QURESHI, *supra* note 277, at 105–06.

[347] *See* QURESHI, *supra* note 277, at 106–08.

[348] *See* Deeks, *supra* note 277, at 492.

[349] *See* CORTEN, *supra* note 60, at 258–259; Gray, *supra* note 122, at 117.

[350] Letter to Congressional Leaders on United States Military Operations in Syria, 2017 DAILY COMP. PRES. DOC. 244 (Apr. 8, 2017). *See also* JOHN W. PARKER, PUTIN'S SYRIAN GAMBIT: SHARPER ELBOWS, BIGGER FOOTPRINT, STICKIER WICKET 49 (2017) ("[T]he United States on April 7 launched 59 Tomahawk cruise missiles from the destroyers USS Porter and USS Ross in the Mediterranen against the Shayrat airbase.").

[351] Curtis FJ Doebbler, *Why the United States' Use of Force Against Syria Violates International Law*, COUNTERPUNCH, April 7, 2017 https://www.counterpunch.org/2017/04/07/why-the-united-states-use-of-force-against-syria-violates-international-law/ ("In this case, no armed attack took place against the US, therefore there is no justification for the

attacks on the Syrian base.[353] Therefore, it is clear that the U.S. is not using defensive force to defend itself or to restore peace, which is also clear from its official stance. Therefore the "unwilling or unable test" for the use of force does not apply in the Syria–U.S. conflict.

CONCLUSION

All uses of force against U.N. members are prohibited under the U.N. Charter through its Article 2(4),[354] with only two[355] exceptions.[356] One is self-defense, where the victim state can only use defensive force as a counteraction against an armed attack occurring in its territory, and can only do so to defend itself and to restore peace and security;[357] an actual armed attack is a prerequisite.[358] The other exception is through UNSC authorization,[359] but even then the legal use of force must follow the international humanitarian laws of necessity, proportionality, and distinction.[360] The proponents of peace argue that war can only destabilize a state and increase human suffering rather than alleviate it.[361] For example, owing to the ongoing U.S.–Syria conflict, more than 3 million Syrians have been displaced[362] and hundreds of thousands have died.[363] Military action

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use of force by the US.").

[352] S. Krishnan, *The Alleged Use of Chemical Weapons Against the Syrian People: Does it Justify Forceful Intervention?*, 21 JADAVPUR J. OF INT'L REL. 1, 2 (2017).

[353] PARKER, *supra* note 350, at 49.

[354] SCOTT NICHOLAS ROMANIUK, NEW WARS: TERRORISM AND SECURITY OF THE STATE, 2 (2013). *See also*,U.N. Charter art 2 ¶ 4.

[355] SPENCER ZIFCAK, UNITED NATIONS REFORM: HEADING NORTH OR SOUTH? 85 (ROUTLEDGE, 2009).

[356] STEVEN J. BARELA, LEGITIMACY AND DRONES: INVESTIGATING THE LEGALITY, MORALITY AND EFFICACY OF UCAVS 28 (Routledge 2016). *See also* CARLO PANARA & GARY WILSON, THE ARAB SPRING: NEW PATTERNS FOR DEMOCRACY AND INTERNATIONAL LAW 72 (Martinus Nijhoff Publishers 2013); CORTEN, *supra* note 60, at 497.

[357] PADDEU, *supra* note 108, at 213. *See also* John Dugard, *International Terrorism and the Just War, in* TERRORISM: THE SECOND OR ANTI-COLONIAL WAVE 21 (David C. Rapoport ed., 2006). *See also* U.N. Charter art. 51.

[358] U.N. Charter art. 51. *See also* Borgeryd, *supra* note 99 ("[T]he attribution of blame enables the other party or parties to legally respond in exactly the same way. . . .") (emphasis in original); HENRIKSEN, *supra* note 122 ("[O]nly acts producing or likely to produce very serious consequences, such as territorial invasions, human fatalities or massive destruction of property, will suffice to constitute an armed attack that triggers a right to self-defense.").

[359] U.N. Charter arts. 41 & 42. *See also* CARR, *supra* note 46, at 49.

[360] *See* Kevin Jon Heller, *The Use and Abuse of Analogy*, *in* THEORETICAL BOUNDARIES OF ARMED CONFLICT AND HUMAN RIGHTS 252 (Jens David Ohlin ed., 2016); *see also* MICHAEL A. NEWTON & LARRY MAY, PROPORTIONALITY IN INTERNATIONAL LAW, 68 (2014).

[361] Graubart, *supra* note 312, at 206.

[362] CAROLYN LADELLE BENNETT, UNCONSCIONABLE: HOW THE WORLD SEES US 135

may only be taken after exhausting all possible peaceful[364] means[365] and must not cause casualties and destruction beyond what is necessary and proportional as a counterattack against armed aggression.[366] Moreover, both sides of the conflict must also make a distinction between civilians and combatants;[367] targeting civilians is prohibited.[368]

However, there is a third way for states to use legal force in the territory of a sovereign state.[369] This exception is known as the use of force by invitation,[370] where the state does not use force against the sovereign state but rather helps it to stabilize the region to fight illegitimate NSAs such as insurgents, rebels, and terrorist groups.[371] If a state protests against a military intervention, regardless of tacit consent or treaty consent, any use of force against a state is considered an illegal use of force[372] because the use of force under invitation is not to be used against the state but for the help of it; such use of force will not be considered legal.[373] Therefore, there is no third defense under international law for using force *against* a

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(2014).

[363] BILL KISSANE, NATIONS TORN ASUNDER: THE CHALLENGE OF CIVIL WAR (2016) (stating that 200,000 people have been killed in Syria in just four years).

[364] QURESHI, JUST WAR THEORY, *supra* note 249, at 167–68.

[365] O'Connell, *supra* note 249, at 45.

[366] *See* SCHMITT & ARIMATSU, *supra* note 248, at 274; *see also* Geneva Convention Relative to the Treatment of Prisoners of War art. 3, Aug. 12, 1949, 6 U.S.T. 3316, 75 U.N.T.S. 135; Case Concerning Oil Platforms (Iran v. U.S.), Judgment, 2003 I.C.J. Rep. (Nov. 6); O'Connell, *supra* note 176, at 45; Matheson, *supra* note 253, at 265; Newton & May, *supra* note 105, at 67, 185; Pagallo, *supra* note 255, at 63; Nayan, *supra* note 257, at 82; Boulos & Azcoiti, *supra* note 258, at 138; Henckaerts & Doswald-Beck, *supra* note 259, at 47; INGRID DETTER DE LUPIS, THE LAW OF WAR 192 (2013).

[367] JEAN-MARIE HENCKAERTS & LOUISE DOSWALD-BECK, INT'L COMM. OF THE RED CROSS, 1 CUSTOMARY INTERNATIONAL HUMANITARIAN LAW: RULES 3 (2005)

[368] Emily Crawford, *The Principle of Distinction and Remote Warfare*, *in* RESEARCH HANDBOOK ON REMOTE WARFARE 55 (Jens David Ohlin ed. 2017). *See also* Protocol I, *supra* note 265; Protocol II, *supra* note 267; INTERNATIONAL CRIMINAL LAW: A COLLECTION OF INTERNATIONAL AND EUROPEAN INSTRUMENTS 472 (Christine Van den Wijngaert et al. eds. 2005); MIRIAM BRADLEY, PROTECTING CIVILIANS IN WAR: THE ICRC, UNHCR, AND THEIR LIMITATIONS IN INTERNAL ARMED CONFLICTS 71 (2016).

[369] Stephen Mathias, *The Use of Force: The General Prohibition and Its Exceptions in Modern International Law and Practice*, *in* A NEW INTERNATIONAL LEGAL ORDER: IN COMMEMORATION OF THE TENTH ANNIVERSARY OF THE XIAMEN ACADEMY OF INTERNATIONAL LAW 81 (Chia-Jui Cheng ed. 2016). *See also* Williamson, *supra* note 88, at 226; CORTEN, *supra* note 60, at 256.

[370] *See* Mathias, *supra* note 241; *see also* Williamson, *supra* note 88; CORTEN, *supra* note 60.

[371] *See* CORTEN, *supra* note 60, at 256.

[372] GRAY, *supra* note 141, at 117. *See also* CORTEN, *supra* note 60, at 258–59.

[373] *See* GRAY, *supra* note 122, at 117; *see also* CORTEN, *supra* note 60, at 258–59.

sovereign state.[374] All other justifications of use of force, such as the use of force in anticipatory self-defense,[375] humanitarian intervention under R2P,[376] and the unwilling or unable test cannot come within the scope of the U.N. Charter if it comes without actual armed attack[377] or UNSC authorization.[378]

Nevertheless, theoretical explanations and customary international law can be used as possible defenses under international law to justify U.S. airstrikes in Syria. If we analyze anticipatory self-defense, it requires that there be an imminent threat of an armed attack.[379] In the Syria–U.S. conflict, the U.S. has never argued that Syria poses any imminent threat to U.S. territory.[380] Therefore, ASD is not applicable. The same goes for the "unwilling and unable test." The test requires that there be an armed attack to justify force against NSA.[381] In the Syria–U.S. conflict, there has been no armed attack against U.S.,[382] and the U.S. is not fighting NSA but the Syrian state directly,[383] which does not justify the use of force under the same test. For this reason, the "unwilling and unable test" is also not applicable in the U.S.–Syria conflict. The U.S. has not argued self-defense in firing missiles against the Syrian state,[384] and it has not accused Syria of an armed attack against its sovereign territory; in fact, there was no armed attack by Syria against U.S. territory.[385] Similarly, the Syrian state has not invited the U.S. to use force in its territory; rather, the U.S. is using force against Syrian state,[386] so there is no justification of the use of force by invitation. And, lastly, the U.S. did not gain UNSC authorization to use force against Syria,[387] so all possible defenses under international law are

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[374] ZIFCAK, *supra* note 28.

[375] SHIRLEY V. SCOTT ET AL., INTERNATIONAL LAW AND THE USE OF FORCE: A DOCUMENTARY AND REFERENCE GUIDE 136 (2010). *See also*, BZOSTEK, *supra* note 287; HELMKE, *supra* note 288.

[376] BETTS & ORCHARD, *supra* note 303; *see* JOSE, *supra* note 327; GENSER & COTLER, *supra* note 331; *see also* CORTEN, *supra* note 60, at 497, 542–43.

[377] Deeks, *supra* note 277. *See also* QURESHI, *supra* note 277.

[378] CORTEN, *supra* note 60.

[379] SCOTT ET AL., *supra* note 278. *See also* CARR, *supra* note 242, at 51.

[380] Doebbler, *supra* note 73.

[381] Deeks, *supra* note 277. *See also* QURESHI, *supra* note 277.

[382] Doebbler, *supra* note 73.

[383] PARKER, *supra* note 1.

[384] *Id.*; *Presidential Letter on Syria*, *supra* note 9.

[385] Doebbler, *supra* note 73.

[386] PARKER, *supra* note 1.

[387] CORTEN, *supra* note 60, at 497, 542-43. *See also*, BETTS & ORCHARD, *supra* note 303; JOSE, *supra* note 327; GENSER & COTLER, *supra* note 331.

exhausted. Instead, the U.S. has accused Syria of violating an international treaty by using chemical weapons.[388]

Some scholars argue that the unilateral use of force against a sovereign state can at times be justified under the developing norm of humanitarian intervention. According to Harold Koh, the following conditions must be met in order for a state to be able to invoke the humanitarian intervention exception to international law's general ban on the use of force:

> (1) If a humanitarian crisis creates consequences significantly disruptive of international order—including proliferation of chemical weapons, massive refugee outflows, and events destabilizing to regional peace and security—that would likely soon create an imminent threat to the acting nations (which would give rise to an urgent need to act in individual and collective self-defense under U.N. Charter Article 51);
>
> (2) a Security Council resolution were not available because of persistent veto; and the group of nations that had persistently sought Security Council action had exhausted all other remedies reasonably available under the circumstances, they would not violate U.N. Charter Article 2(4) if they used
>
> (3) limited force for genuinely humanitarian purposes that was necessary and proportionate to address the imminent threat, would demonstrably improve the humanitarian situation, and would terminate as soon as the threat is abated.
>
> In particular, these nations' claim that their actions were not wrongful would be strengthened if they could demonstrate:
>
> (4) that the action was collective, e.g., involving the General Assembly's Uniting for Peace Resolution or regional arrangements under U.N. Charter Chapter VIII;
>
> (5) that collective action would prevent the use of a per se illegal means by the territorial state, e.g., deployment of banned chemical weapons; or
>
> (6) would help to avoid a per se illegal end, e.g., genocide, war crimes, crimes against humanity, or an avertable humanitarian disaster, such as the widespread slaughter of innocent civilians, for example, another Halabja or Srebrenica. To be credible, the legal analysis of any particular situation would need to substantiate each of these factors with persuasive factual evidence of: (1) Disruptive Consequences likely to lead to Imminent Threat; (2) Exhaustion; (3) Limited, Necessary, Proportionate, and Humanitarian Use of Force; (4) Collective Action; (5) Illegal Means; and (6) Avoidance of Illegal Ends.[389]

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[388] PARKER, *supra* note 1; *Presidential Letter on Syria*, *supra* note 9.

[389] Harold Hongju Koh, *The War Powers and Humanitarian Intervention*, 53 HOUS. L. REV. 971, 1011 (2016) (emphasis omitted). *See* Harold Hongju Koh, *Not Illegal: But Now*

The U.S. may therefore only justify its use of force under the pretext of humanitarian intervention under R2P in respect of the alleged chemical weapons use by the Syrian state.[390] But humanitarian intervention without UNSC authorization is unlawful.[391] In this context, the only legal remedy available to the U.S. was to seek relief through the U.N. forums.[392] Only with UNSC authorization can the U.S. use legal force against Syria. However, while the U.S. explored the UNSC authorization process, Russia has vetoed all UNSC resolutions to use force in Syria.[393] Owing to this veto impasse,[394] the U.S. could have resorted to use force out of R2P principle as a humanitarian intervention. The official U.S. stance also reflects this narrative, and it has never argued self-defense. Rather, it maintained that the missile attack against the Syrian base was in response to the use of chemical weapons to end the ongoing slaughter of humanity by the Assad regime.[395]

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the Hard Part Begins, JUST SECURITY (Apr. 7, 2017), https://www.justsecurity.org/39695/illegal-hard-part-begins/; Milena Sterio, *Syria: The (Il)legality of the United States' Use of Force Against Assad*, INT'L L. GRRLS (Apr. 9, 2017), https://ilg2.org/2017/04/09/syria-the-illegality-of-the-united-states-use-of-force-against-assad/.

[390] PARKER, *supra* note 1; *Presidential Letter on Syria*, *supra* note 9.

[391] JOSE, *supra* note 327. *See also* GENSER & COTLER, *supra* note 331; CORTEN, *supra* note 60, at 542–43.

[392] Doebbler, *supra* note 73.

[393] *See* SECURITY COUNCIL - VETO LIST, *supra* note 323.

[394] Krishnan, *supra* note 34.

[395] *Presidential Letter on Syria*, *supra* note 9.

Poisons in Our Communities: Environmental Justice's Role in Regulating Hawai'i's Biotechnology Industry

Kevin Tongg*

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* J.D. Candidate, Class of 2018, William S. Richardson School of Law. The author would like to thank Professor D. Kapua'ala Sproat for her guidance and support.

I. INTRODUCTION

On certain nights, my daughters would wake up with burning eyes, burning throats. . . . I had no idea what was going on.[1]

This is only one of the health challenges that Malia Chun, a Kaua'i resident, has to deal with.[2] Malia is a single mother who lives on a Department of Hawaiian Homelands ("Hawaiian Homelands") homestead in Waimea, on Kaua'i's west side.[3] The fields around Malia's home, which are only a football field's length away, are regularly sprayed with pesticides,[4] whose effects on human health are not fully understood.[5] After two years of living on Hawaiian Homelands surrounded by agricultural fields, Malia was diagnosed with adult asthma caused by environmental factors.[6] Interestingly, Malia had never suffered from respiratory issues when she lived on Kaua'i's east side, where she was born and raised.[7]

The DuPont Pioneer company "sprayed pesticides on 65 out of every 100 days over a six-year period" on Kaua'i.[8] Agriculture biotechnology industry leaders claim that "pesticide use in Hawai'i is conservative and controlled."[9] Ashley Lukens, Director of the Hawai'i Center for Food Safety, however, explains that "actual data is scarce on what chemicals are being applied, where, when and in what amounts[.]"[10]

Malia's account is just one Kaua'i resident's story.[11] Other Kaua'i residents also experienced noticeable health effects that they attribute to

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[1] Ilima Loomis, *Hawai'i Business Environmental Report: Pesticides*, HAW. BUS. (May 2016), http://www.hawaiibusiness.com/hawaii-business-environmental-report-pesticides/.

[2] *Id.*

[3] *Id.*

[4] *See* Telephone Interview with Malia Chun, Na Pua No'eau Program Coordinator, Kaua'i Cmty. Coll. (Mar. 10, 2017). During the first few years that Malia lived on Hawaiian Homelands, the fields were only a football field's length away. *Id.* Now, however, the fields are slightly farther from her home. *Id.*

[5] Loomis, *supra* note 1. Although scientific data on the effects of pesticides is not definitive, the precautionary principle should be applied in environmental law cases. *See* In re Water Use Permit Applications, 9 P.3d 409, 466-67 (Haw. 2000) (deciding a dispute over the water distributed by a major irrigation infrastructure on O'ahu, Hawai'i, supplying the island's leeward side with water diverted from its windward side). The precautionary principle explains that "the absence of firm scientific proof should not tie the [responsible agency's] hands in adopting reasonable measures designed to further the public interest." *Id.*

[6] Loomis, *supra* note 1.

[7] *See* Telephone Interview with Malia Chun, *supra* note 4.

[8] Loomis, *supra* note 1.

[9] *Id.*

[10] *Id.*

[11] *See* Telephone Interview with Malia Chun, *supra* note 4.

pesticides.[12] For instance, there have been several reports of students and teachers feeling ill at Waimea Canyon Middle School.[13] Officials later conceded that these health scares were likely due to pesticide use in nearby fields.[14] Waimea Canyon Middle School's athletic fields are located just three hundred feet from a ten-acre corn field.[15] The agriculture fields of biotechnology companies, like the ones next to Waimea Canyon Middle School, are not ordinary crops; they are experimental fields testing new varieties of crops developed for certain traits.[16]

One incident involving pesticide use on genetically engineered ("GE") crops near Waimea Canyon Middle School, on January 25, 2008, was so severe that at least ten children collapsed and were taken to the emergency room.[17] The students, who were outside for a physical education class, complained of nausea, headache, and dizziness after noticing a "really strong smell."[18] Syngenta Seeds, the company that was spraying pesticides in the nearby field, maintains that its use of pesticides was not what made the students sick.[19] Syngenta claimed that the noxious odors were caused

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[12] *See* Andrea Brower, *Hawai'i's Local Struggle in the Global Movement for Food Justice*, COMMON DREAMS (July 23, 2013), http://www.commondreams.org/views/2013/07/23/hawaiis-local-struggle-global-movement-food-justice (discussing Hawai'i citizens' rising awareness of the struggle against the seed industry's experiments engineering new chemical-crop combos); 'ĀINA: THAT WHICH FEEDS US (Living Ancestors 2015) (promoting sustainable methods of agriculture, rather than harmful methods, like the biotechnology industry's).

[13] Brower, *supra* note 12.

[14] *Id.*

[15] Diana Leone, *Odor That Got Kids Sick Debated*, HONOLULU ADVERTISER (Feb. 24, 2008), http://the.honoluluadvertiser.com/article/2008/Feb/24/ln/hawaii802240350.html.

[16] Loomis, *supra* note 1. Agriculture biotechnology companies, or seed companies, manipulate plants' DNA to achieve desired traits. *See* BILL FREESE, ASHLEY LUKENS & ALEXIS ANJOMSHOAA, HAW. CTR. FOR FOOD SAFETY, PESTICIDES IN PARADISE: HAWAI'I'S HEALTH & ENVIRONMENT AT RISK 10 (2015) https://www.centerforfoodsafety.org/files/pesticidereportfull_86476.pdf [hereinafter HAW. CTR. FOR FOOD SAFETY] (analyzing Hawai'i's biotechnology companies' pesticide use risks and impacts to the communities and environment of Hawai'i). For example, one genetically altered variety of corn, Bt-corn, creates a protein (Bt delta endotoxin) that kills certain types of caterpillars. Ric Bessin, *Bt-Corn: What It Is and How It Works*, UNIV. OF KY. COLL. OF AGRIC., FOOD AND ENV'T, https://entomology.ca.uky.edu/ef130 (last updated Nov. 2003). Scientists insert specific portions of genetic material from another organism into the target organism to add a desired trait into that organism. *Id.* Bt-corn was created by splicing genetic material from a naturally occurring soil bacterium, *Bacillus thuringiensis*, into corn's genetic material. *Id.* The genetic material taken from Bacillus thuringiensis contained the genetic code to produce Bt delta endotoxin. *Id.* With the genetic code to produce Bt delta endotoxin, Bt-corn produces Bt delta endotoxin that kills the target pests when ingested. *Id.*

[17] Leone, *supra* note 15.

[18] *Id.*

[19] *Id.*

by stinkweed.[20] Wendy Tannery, the teacher supervising the physical education class, is skeptical that stinkweed was what caused her students to fall ill.[21] Tannery is familiar with stinkweed and concluded that stinkweed was not what she smelled on January 25, 2008 when her students collapsed in class.[22]

Kaua'i's experimental test fields are not the only test fields in Hawai'i.[23] Biotechnology companies have experimental field trials on O'ahu, Maui, and Moloka'i.[24] For example, there are experimental fields in Kunia on O'ahu;[25] Mokulele on Maui;[26] and in Ho'olehua on Moloka'i.[27] Biotechnology companies have moved into Hawai'i in the last few decades, capitalizing on the void left by the decline of Hawai'i's plantation agriculture.[28]

Hawai'i has a long history of being exploited for private financial gain.[29] For over two hundred years, the five largest plantation companies, known as the "Big Five," dominated Hawai'i's economic landscape.[30] By 1995,

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[20] Paul Koberstein, *GMO Companies are Dousing Hawaiian Island with Toxic Pesticides*, GRIST (June 16, 2014), http://grist.org/business-technology/gmo-companies-are-dousing-hawaiian-island-with-toxic-pesticides/.

[21] Leone, *supra* note 15.

[22] *Id.*

[23] *See* Loomis, *supra* note 1.

[24] Jessica Knoblauch, *Pesticides in Paradise*, EARTHJUSTICE (2015), http://earthjustice.org/features/pesticides-in-paradise (describing Hawai'i's biotechnology industry and its impacts on Hawai'i and its citizens).

[25] Paul Voosen, *King Corn Takes Root in Hawai'i*, N.Y. TIMES (Aug. 22, 2011), http://www.nytimes.com/gwire/2011/08/22/22greenwire-king-corn-takes-root-in-hawaii-28466.html?pagewanted=all (discussing the biotechnology industry and how it took Hawai'i's plantation industry's place).

[26] James W. Macey, *Maui Activists Join Forces to Protest Monsanto Corporation*, ACTIVIST POST (June 11, 2012), https://www.activistpost.com/2012/06/maui-activists-join-forces-to-protest.html.

[27] Molokaimatt, *Molokai MOM - Standing up to GMO*, YOUTUBE (March 20, 2013), https://www.youtube.com/watch?v=_7D4DB5LSBQ [hereinafter Moloka'i MOM]. Monsanto is the largest employer on Moloka'i. *Id.* Because of this, people are less likely to stand up to Monsanto even though they are experiencing health issues that may be caused by pesticide exposure. *Id.*

[28] *See* Voosen, *supra* note 25.

[29] Daylin-Rose Gibson, Comment, *Remembering the "Big Five": Hawai'i's Constitutional Obligation to Regulate the Genetic Engineering Industry*, 15 ASIAN-PAC. L. & POL'Y J. 213, 224–25 (2014).

[30] *Id.* at 225. The "Big Five" were Alexander & Baldwin, Castle & Cooke, Theo Davies, Amfac, and C. Brewer & Company. *Id.* at 217 n.21 (citing CAROL WILCOX, SUGAR WATER 20 (1996)). For a description of the "Big Five," see Tim Ruel, *Profiles of the Big 5, Then and Now*, STAR BULL. (Sept. 29, 2002) [http://archives.starbulletin.com/2002/09/29/special/story3.html].

however, most of Hawai'i's sugar plantations shut down.[31] The biotechnology industry came to Hawai'i to take advantage of the failing plantation industry and a year-round farming climate.[32]

For example, Monsanto, a biotechnology seed developer, can raise up to four times as many generations of corn a year in Hawai'i than in Iowa due to Hawai'i's favorable weather and year-round growing season.[33] Many of the biotechnology companies conduct their open air experiments on former sugar or pineapple farmland.[34] Because residential communities were built around former plantations,[35] experimental test fields of the biotechnology companies are often located next to homes and schools, as is the case in Waimea, Kaua'i.[36]

Biotechnology companies are under-regulated and some of their practices, such as heavy pesticide use without disclosure, have sparked opposition from citizens throughout the state.[37] For example, on May 25, 2013, thousands of people marched on Maui and O'ahu to protest Monsanto.[38] Hawai'i's March Against Monsanto was part of a worldwide protest against Monsanto.[39] In response to residents' concerns, some of Hawai'i's counties have taken action to regulate the biotechnology industry more closely than current state or federal laws.[40] Both Kaua'i County and Maui County passed laws that attempted to regulate genetically modified

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[31] CAROL A. MACLENNAN, SOVEREIGN SUGAR: INDUSTRY AND ENVIRONMENT IN HAWAI'I 278 (2014) (detailing the history of Hawai'i's sugar industry and its impacts on Hawai'i's economy, politics, people, and the environment).

[32] *See* Voosen, *supra* note 25.

[33] *Id.*

[34] *See id.*

[35] *See* MACLENNAN, *supra* note 31, at 170–200 (describing the history of plantation communities in Hawai'i).

[36] *See* Brower, *supra* note 12; Telephone Interview with Malia Chun, *supra* note 4.

[37] *See* Moloka'i MOM, *supra* note 27 (describing how citizens are wary about eating GMOs and whether pesticides are hurting their health).

[38] Anne Sewell, *March Against Monsanto: In the Streets of Maui & Oahu, Hawaii*, DIGITAL J. (May 27, 2013), http://www.digitaljournal.com/article/350933. Some of the protestors' worries include the health effects of eating GMOs and exposure to pesticides, and food sovereignty. *See* Moloka'i MOM, *supra* note 27.

[39] On its website, Occupy Monsanto states in bold: "This is a Call to Action for a Non-Hierarchical Occupation of Monsanto Everywhere." OCCUPY MONSANTO, http://occupy-monsanto.com/tag/genetically-engineered-food/ (last visited Feb. 16, 2018).

[40] *See* Robert Ito Farm, Inc. v. Maui Cty., 111 F. Supp. 3d 1088, 1103-05 (D. Haw. 2015) (holding that the disputed Maui County ordinance banning genetically engineered plants is preempted by federal law, the Plant Protection Act, and preempted by a statutory comprehensive scheme); Syngenta Seeds, Inc. v. Cty. of Kaua'i, No. 14-00014 BMK, 2014 WL 4216022, at *1 (D. Haw. Aug. 25, 2014) (holding that the disputed Kaua'i County Ordinance 960, regulating GMOs and pesticides, is preempted by state law).

organisms ("GMOs").[41] These ordinances, however, were held to have been preempted by state and/or federal laws.[42] Therefore, Hawai'i's counties are unable to enact laws that cover the same subject matter or conflict with Hawai'i state or federal laws.[43]

The cumulative effect of preemption laws, the biotechnology industry's significant economic and political forces, and the State's inability to enforce laws and enhance their current ability to enforce these laws, often leaves the public in the dark about what disclosures are even available.[44] Underrepresented communities, often targeted for these projects, are being unfairly injured by the lack of regulation.[45] They are also underequipped to engage in battles with state lawmakers and powerful lobbyists from the biotechnology industry.[46] This Article demonstrates the specific harms that these communities face and suggests that the State's kuleana (responsibility) is to both mitigate current impacts and prevent future harm.

Part II introduces this Article's analytical framework. Part III deconstructs the history and politics of Hawai'i's agriculture industry and how it facilitated the rise of the biotechnology industry and the continuation of the sugar oligarchy's paternalistic practices that exploit Hawai'i's natural resources. Part IV introduces the Kaua'i County ordinance that sought to regulate GMOs and the use of pesticides, as well as the ensuing litigation. Part IV includes sections on laws related to protection of the environment, and concludes with a description of federal and Hawai'i state regulation of GMOs and pesticides. Part V analyzes Kaua'i communities, with a focus on Waimea, affected by pesticides used on GMO crops. Part V also discusses the legal system's role in contributing to the environmental injustice experienced by underrepresented communities in Hawai'i. Lastly, Part VI proposes solutions to the issues surrounding the cultivation of GMOs and the associated pesticide use.

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[41] *See Robert Ito*, 111 F. Supp. 3d at 1095; *Syngenta*, 2014 WL 4216022, at *1.

[42] *See* Atay v. Cty. of Maui, 842 F.3d 688, 703, 710 (9th Cir. 2016) (holding that the disputed Maui County ordinance is preempted by state and federal laws); *Syngenta*, 2014 WL 4216022, at *15 (holding that the disputed Kaua'i ordinance is preempted by state laws).

[43] *See* Telephone Interview with Gary Hooser, Former Senate Majority Leader, Haw. State Leg. representing Kaua'i and Ni'ihau (Feb. 21, 2017).

[44] *See Atay*, 842 F.3d at 703; *Robert Ito*, 111 F. Supp. 3d at 1095; *Syngenta*, 2014 WL 4216022, at *1; Telephone Interview with Gary Hooser, *supra* note 43.

[45] *See* Telephone Interview with Gary Hooser, *supra* note 43.

[46] *See id.*

II. ANALYTICAL FRAMEWORK: ENVIRONMENTAL JUSTICE

Professor Eric Yamamoto at the University of Hawai'i at Mānoa William S. Richardson School of Law developed a framework of environmental justice that "focus[es] on race as it merges with the environment."[47] He explains that "[s]ociety tends to separate physical environment from social environment—the latter including people, culture, and social structures."[48] Moreover, "understanding 'our environment' is impossible without understanding both its physical and social aspects and their interplay."[49] Because "[m]uch of the scholarly writing on environmental justice does not address with adequate complexity or depth the interplay between the natural and the racial," Professor Yamamoto's analytical framework attempts to "inquire into distinct cultural and power differences among communities of color and their relationships to 'the environment.'"[50] The established environmental justice analyses attempt two things: "(1) identifying the roots of environmental degradation with disproportionate impacts on racial minorities, and (2) developing solutions for redistributing environmental burdens."[51]

Communities are not all created equally.[52] Underrepresented communities, like Waimea, bear a higher environmental burden than white communities.[53] Environmental justice for underrepresented communities may be about "immediate health concerns or burden distribution."[54] For some indigenous peoples, however, such as those in Hawai'i, "environmental justice is mainly about cultural and economic self-determination and belief systems that connect their history, spirituality, and livelihood to the natural environment."[55]

Examining the "interplay between the natural and the racial"[56] for Native Hawaiians "requires attention to four realms (or 'values') of restorative justice embodied in the human rights principle of self-determination: (1)

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[47] Eric K. Yamamoto & Jen-L W. Lyman, *Racializing Environmental Justice*, 72 U. COLO. L. REV. 311, 311 (2001) (articulating an environmental justice framework and applying it to the Waiahole water controversy).

[48] *Id.* at 312.

[49] *Id.*

[50] *Id.*

[51] *Id.* at 314–15.

[52] *Id.* at 311.

[53] *See id.* at 316; Telephone Interview with Gary Hooser, *supra* note 43.

[54] Yamamoto & Lyman, *supra* note 47, at 311.

[55] *Id.*

[56] *Id.* at 312.

cultural integrity; (2) lands and natural resources; (3) social welfare and development; and (4) self-government."[57]

> [E]ach of the four values of self-determination and restorative justice for Native Peoples is significant because they are inextricably intertwined. Culture cannot exist in a vacuum and its integrity is linked to land and other natural and cultural resources upon which Indigenous Peoples depend on for physical and spiritual survival. In turn, Native communities' social welfare is defined by cultural veracity and access to, and the health of, natural resources. Finally, cultural and political sovereignty determine who will control Indigenous Peoples' destinies (including the resources that define their cultural integrity and social welfare) and whether that fate will be shaped internally or by outside forces (including colonial powers).[58]

Native Hawaiians have a spiritual connection with the land and environment.[59] "The land, like a cherished relative, cared for the Native Hawaiian people and, in return, the people cared for the land."[60] The land, or 'āina, "is an integral component of Native Hawaiian social, cultural, and spiritual life . . . Native Hawaiians see an interdependent reciprocal relationship between the gods, the land, and the people."[61] The land to the Native Hawaiians was "communal and shared."[62] The land cared for the Native Hawaiian people by providing everything the people needed.[63] In return, the people cared for the land.[64] "The principle of *mālama 'āina* (to take care of the land) is therefore directly linked to conserving and

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[57] D. Kapua'ala Sproat, *Wai Through Kānāwai: Water for Hawai'i's Streams and Justice for Hawaiian Communities*, 95 MARQ. L. REV. 127, 173 (2011) [hereinafter Sproat, *Wai Through Kānāwai*] (discussing Native Hawaiians' struggle over water rights and endorsing a contextual legal analysis of Native Peoples' claims to achieve environmental justice) (citing S. James Anaya, *The Native Hawaiian People and International Human Rights Law: Toward a Remedy for Past and Continuing Wrongs*, 28 GA. L. REV. 309, 342 (1994) [hereinafter Anaya, *Native Hawaiians and International Human Rights Law*]).

[58] *Id.* (citing Anaya, *Native Hawaiians and International Human Rights Law*, *supra* note 57 and Rebecca Tsosie, *Engaging in Spirit of Racial Healing Within Critical Race Theory: An Exercise in Transformative Thought*, 11 MICH. J. RACE & L. 21,197 (2005)).

[59] Melody MacKenzie et al., *Environmental Justice for Indigenous Hawaiians: Reclaiming Land and Resources*, 21-WTR NAT. RES. & ENV'T 37, 37 (2007) ("[T]his essay explores the current 'environmental justice' model and posits a new type of Native Hawaiian 'restorative environmental justice' that takes into account the unique experiences of indigenous Hawaiians.").

[60] *Id.*

[61] *Id.*

[62] *Id.*

[63] *See id.*

[64] *Id.*

protecting not only the land and its resources, but also humankind and the spiritual world."[65]

The relationship between Native Hawaiians and the land, however, has dramatically changed after western contact.[66] "Hawaiian lands were divided, confiscated, sold away; Native Hawaiian cultural practices were barred and ways of life denigrated."[67] The Native Hawaiian way of life changed even more in 1893, when "the independent and sovereign Hawaiian nation was illegally overthrown with direct U.S. military support."[68] Moreover, sugar plantations also contributed to disconnecting Native Hawaiians from the land.[69] "Large sugar plantations diverted water from Hawaiian communities . . . thereby severing cultural and spiritual connections."[70] Because of the many harms that Native Hawaiians have already experienced, environmental justice for Native Hawaiians must be achieved.[71]

III. BACKGROUND: THE HISTORY OF HAWAI'I'S AGRICULTURE

To truly understand how agriculture's biotechnology industry has taken root in Hawai'i, one must unravel the history of Hawai'i's agriculture. Polynesians arrived and colonized the Hawaiian Islands between AD 1000 to AD 1400.[72] During this period, the Native Hawaiians developed a strong agricultural production system that supported exponential population growth.[73] The Hawaiians' agriculture prowess was possible because of the tropical climate and abundance of water.[74]

A. Western Contact

Captain James Cook's appearance in the Hawaiian Islands in 1778 marked the beginning of Western influence in Hawai'i.[75] European contact in the islands introduced many different species of plants.[76] For example,

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[65] *Id.*
[66] *See id.*
[67] *Id.*
[68] *Id.*
[69] *See id.*
[70] *Id.*
[71] *See id.*
[72] MACLENNAN, *supra* note 31, at 17.
[73] *Id.*
[74] *See id.* at 15–17 (describing Hawai'i's environment and how people have influenced agriculture).
[75] *Id.* at 22-23.
[76] *See id.* at 28 (explaining that plants such as corn, watermelon, tobacco, cotton, citrus,

archival records indicated that by the 1840s Hawaiians grew citrus, guava, coffee, and rice, among other species of plants, around their homes.[77] Although the introduction of new species of plant led to cultivation of these species on a small scale,[78] sugar[79] would soon dominate commercial agriculture in Hawai'i.[80] By the 1840s the first Western-style sugar plantations began operating in Hawaiian communities.[81]

B. The Rise of the Sugar Industry

Around this time, international thirst for sugar boomed, which encouraged the growth and development of sugar economies such as Hawai'i's.[82] Consequently, by the 1890s the sugar industry controlled Hawai'i's economy.[83] The effects of the sugar industry on the islands were profound: "it claimed the soils, forests, and waters, and remade the human community into one of plantation workers and towns to service its economy."[84] The success of the sugar industry, however, was not easy.[85]

> [A] developing sugar district . . . had to meet several requirements: abundant capital, up-to-date technology, a business strategy supporting sugar production during the unproductive start-up years, a favorable land use and labor recruitment policy[86] by the local government, and the necessary political power to secure a market in a distant nation.[87]

By meeting these requirements, Hawai'i's sugar industry became the most productive sugar region in the world by the mid-twentieth century.[88]

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guava, coffee, and rice were introduced into Hawai'i by the 1840s).

[77] *Id.*

[78] *See id.* (listing the foreign species of plants that Hawaiian communities cultivated).

[79] Sugar was brought to Hawai'i "as a minor staple in the Polynesian diet and grown adjacent to taro fields." *Id.* at 30.

[80] *Id.* at 4–5 (describing the increase in sugar production that led to the sugar industry's agricultural domination in Hawai'i). *See also* CAROL WILCOX, SUGAR WATER 15 (1996) (discussing Hawai'i's sugar industry and its power over Hawai'i's water resources).

[81] MACLENNAN, *supra* note 31, at 3.

[82] *Id.* at 36.

[83] *Id.* at 29; WILCOX, *supra* note 80, at 15–17 (describing the politics and laws that facilitated the sugar industry's success).

[84] MACLENNAN, *supra* note 31, at 29.

[85] *See id.* at 30 (describing the requirements for a successful sugar industry).

[86] For example, plantation workers were hired on a contract basis from countries like Japan, Korea, and the Philippines. *See id.* at 173. These workers had no rights to citizenship and were forced to live and work at the discretion of the sugar companies. *See id.* at 170–71. Wages were criminally low and living conditions in the plantation camps were deplorable, breeding infectious diseases. *See id.* at 171–72.

[87] *Id.* at 30.

[88] *Id.*

The government played a significant role in the sugar industry's success in Hawai'i.[89] For example, early Maui sugar plantations "claimed the right to water resources with the sanction of the king and government."[90] Sugar cultivation requires large volumes of water,[91] therefore, sugar plantations needed to draw water from sources far from their fields.[92] Accordingly, plantations developed extensive irrigation systems to supply water to their fields.[93] Those early sugar plantation claims on water rights legally and practically paved the way for large scale water diversion on all the islands.[94]

Land use and water development policies created to serve private economic purposes "left a legacy of resource and environmental policies that color and direct contemporary resource policy debates."[95] Without the support of the government, which the sugar industry relied on for water rights, sugar production would likely not have been as successful.[96] "The shaping influences of organized capital and sugar-friendly natural resource policies also created the landscape that is today's eco-industrial heritage."[97]

> The industrial landscape—both human and biochemical—that grew out of Hawai'i's economic commitment to sugar production created a different natural and human world. It also left a legacy that defines contemporary economics and policies—water systems still structured by old plantation landscapes, human communities in places where there are few jobs, and the continuous search by the state government for replacement economies that

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[89] *Id.* at 34; *See* WILCOX, *supra* note 80, at 15–17 (describing the politics and laws that facilitated the sugar industry's success). One example of governmental support, the Reciprocity Treaty, which was signed by King Kalakaua in 1876, allowed tax-free trade for most products between Hawai'i and the U.S. WILCOX, *supra* note 80, at 16. "The Reciprocity Treaty was predicated on full governmental support of the fledgling sugar industry, including its efforts to develop water. Without that support, which included allowing the sugar planters to transport water out of the watershed, investors would not have been attracted to Hawai['']i." *Id.*

[90] MACLENNAN, *supra* note 31, at 34; *see also* D. KAPUA'ALA SPROAT, *From Wai to Kānāwai: Water Law in Hawai'i*, *in* NATIVE HAWAIIAN LAW: A TREATISE 533 (Melody Kapilialoha MacKenzie et al. eds., 2015) [hereinafter SPROAT, *Water Law in Hawai'i*] (discussing Hawai'i's water law in correlation with Native Hawaiian traditions and customs).

[91] MACLENNAN, *supra* note 31, at 30 (explaining that sugar, as an export mono-crop, requires large volumes of water and labor-intensive work in clearing, stumping, cultivating, planting, fertilizing, weeding, harvesting, and transporting).

[92] *See id.* at 34 (describing sugar plantation's claim on water rights for irrigation).

[93] *Id.* at 49.

[94] *Id.* at 34.

[95] *Id.*

[96] *See id.* at 49 (describing the sugar industry's dependence on extensive irrigation); WILCOX, *supra* note 80, at 16–19.

[97] MACLENNAN, *supra* note 31, at 50.

break the dependencies upon single industries (today's tourism and military).[98]

C. The Seed Industry Takes Root

In 1966 the first seed crop, "a five-acre plot of corn on Moloka'i," sprouted roots in Hawai'i.[99] "As the world's seed firms were acquired by agrochemical companies in the 1980s and 1990s, there was a rapid transition of Hawai'i's seed industry from conventional to genetically engineered seeds."[100] "Seed crops are grown for breeding purposes or for farmers' planting stock rather than for food, feed, or biofuels production."[101] The major players of the seed industry, five international companies, make up 99% of the seed industry in Hawai'i.[102] Of all the seed crops grown in Hawai'i, 95% is seed corn.[103]

The seed companies develop GMOs.[104] GE crops are developed to contain "one or both of two traits: herbicide-resistance ("HR") and/or insect-resistance ("IR")."[105] HR GE crops are developed to withstand direct application of selected herbicides that would kill unmodified plants.[106] IR GE crops create insecticidal toxins in their tissues.[107]

Although proponents claim that the seed industry is an essential component of Hawai'i's economy, it "only employed 1,397 workers in 2012, representing just 0.23% of total Hawai'i jobs."[108] The industry, however, "claims to contribute $264 million annually to Hawai'i's economy in the form of wages, taxes, and the purchase of agricultural materials and supplies."[109]

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[98] *Id.* at 33–34.

[99] HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 14. "Seed crops are grown for breeding purposes or for farmers' planting stock rather than for food, feed, or biofuels production." *Id.* at 12.

[100] *Id.* at 8.

[101] *Id.* at 12.

[102] *See* JEFFREY MELROSE ET AL., STATEWIDE AGRICULTURE LAND USE BASELINE 23 (2015) (reporting the statistics of Hawai'i's agriculture).

[103] *Id.*

[104] *See* HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 15.

[105] *Id.* at 21.

[106] *Id* at 22. For example, Roundup Ready corn, a genetically modified variety of corn, is developed to withstand direct applications of Roundup, a brand-name herbicide produced by Monsanto. *See also Agricultural Seeds*, MONSANTO, http://www.monsanto.com/products/pages/monsanto-agricultural-seeds.aspx (last visited Apr. 17, 2017).

[107] HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 21.

[108] *Id.* at 3.

[109] MELROSE ET AL., *supra* note 102, at 23.

As of May 2015, the seed industry occupied approximately 25,000 acres of farmland.[110] The sugar industry, previously the largest land user in Hawai'i, cultivated sugar on approximately 38,800 acres.[111] In December 2016, HC&S, Hawai'i's last sugar plantation, completed its final harvest.[112] With the end of Hawai'i's sugar industry,[113] the seed industry is now the largest land user in Hawai'i.[114] Kaua'i is home to the largest acreage of seed crops: 13,299 acres out of the total 23,728 acres in the state.[115]

One of the problems associated with the seed industry is its use of pesticides.[116] The HR crops that the seed companies test in Hawai'i actually increase the volume of herbicides used.[117] When the farmers spray pesticides, the pesticides may migrate from the application site.[118] This is referred to as pesticide drift.[119] Pesticides may be applied in two different

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[110] HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 3.

[111] MELROSE ET AL., *supra* note 102, at 22.

[112] *See End of an Era: Hawaii's Last Sugar Mill Wraps up Final Harvest*, STAR ADVERT. (December 12, 2016, 11:13 AM), http://www.staradvertiser.com/2016/12/12/business/business-breaking/end-of-an-era-hawaiis-last-sugar-mill-wraps-up-final-harvest/.

[113] *See* MELROSE ET AL., *supra* note 102, at 23.

[114] *Id.*; *End of an era: Hawaii's last sugar mill wraps up final harvest*, STAR ADVERT. (Dec. 12, 2016), http://www.staradvertiser.com/2016/12/12/business/business-breaking/end-of-an-era-hawaiis-last-sugar-mill-wraps-up-final-harvest/.

[115] MELROSE ET AL., *supra* note 102, at 47. The impacts of Kaua'i's large seed industry spread further than just the effects of pesticide usage. *See* Phoebe Eng, *From Plantations to GMOs: The Struggle for the Farming Future of West Kaua'i*, *in* FACING HAWAII'S FUTURE: ESSENTIAL INFORMATION ABOUT GMO'S 56-57 (2012). The seed industry plays into the power struggle over the island's water. *See id.* Who controls the water "determines the fate of Hawai'i[], its agricultural destiny and its people." *Id.* at 56. During the rise of the sugar industry on the west side of Kaua'i, the Koke'e and Kekaha Ditch systems were created to "divert[] large amounts of water from intakes in the upland swamps and forests to sugarcane lands" to west Kaua'i. *Id.* at 57. The diversion of water has impacted Native Hawaiians immensely by destroying river ecosystems and disrupting Native Hawaiian traditions and customs. *See* D. Kapua'ala Sproat & Isaac H. Moriwake, *Ke Kalo Pa'a O Waiāhole: Use of the Public Trust as a Tool for Environmental Advocacy*, *in* CREATIVE COMMON LAW STRATEGIES FOR PROTECTING THE ENVIRONMENT 252–53 (Clifford Rechtschaffen & Denise Antolini eds., 2007) (discussing the history of the public trust doctrine and how it can be used as a tool advocate for the environment). The seed industry replaced the sugar industry in west Kaua'i and now control the land and the water. *See* Eng, *supra*, at 57-58.

[116] *See* Telephone Interview with Gary Hooser, *supra* note 43.

[117] *See infra* Part V.A (discussing the development of pesticide resistant weeds that force farmers to use higher doses of pesticides).

[118] *See* HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 18–19.

[119] THE JOINT FACT FINDING STUDY GROUP, PESTICIDE USE BY LARGE AGRIBUSINESSES ON KAUA'I 36 (2015) (reporting on the findings and recommendations on pesticide usage on Kaua'i by Syngenta, Dow AgroSciences, DuPont Pioneer, BASF Plant Science, and Kaua'i Coffee, as well as any possible impacts to environmental and human health from such

ways: as liquid or as "very fine dry particles (commonly referred to as dust formulations)."[120] "Both fluid droplets and dust particles have the potential to move from the target site of application under certain conditions."[121] Pesticide drift can also occur when contaminated soil blows from GE fields and "through volatilization (the vaporization of pesticides)."[122] Pesticides can also migrate from their target sites through runoff and leaching, or in other words, "pesticide movement in water."[123]

The seed industry's presence in Hawai'i also has implications on the control of water.[124] In Kaua'i, for example, the Agribusiness Development Corporation ("ADC")[125] "gave the exclusive license to use, manage, operate, maintain and control the infrastructure of the west Kaua'i former sugar cane lands to a private entity called Kekaha Agriculture Association" ("KKA").[126] KKA "manage[s] [] the K[ō]ke'e and Kekaha[127] ditch systems and the control and taking of its flows."[128] As a state agency, KKA should be a responsible steward of Kaua'i's water resources, however, this may not be the case because KKA is "run and primarily financed by its largest corporate members," including: Pioneer Hi-Bred International, Syngenta, and BASF.[129]

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usage).

[120] *Id.* at 39.

[121] *Id.*

[122] *Id.*

[123] *Id.* at 36.

[124] *See* ENG, *supra* note 115, at 57 (describing how the seed companies moved into the position of power in west Kaua'i that the sugar cane plantations used to hold).

[125] *Id.*

> [I]n 1994, the State Legislature created a new state agency, the [ADC] within the Department of Agriculture to manage the transition of [abandoned sugar cane lands]. ADC is charged with transitioning the monocrop operations of the former operations into new diversified agriculture enterprises, and managing former sugarcane lands toward that overall goal.
>
> The ADC, however, is not an ordinary public agency. It is granted powers that enable it to contract with private sector partners more quickly than other public sector agencies.

Id. at 56–7. ADC, however, may be abusing its powers. *See id.* at 57. For example, ADC gave 5,300 acres of Kekaha's most productive agricultural lands to the Pacific Missle Range Facility, which "was hotly contested by native Hawaiian leaders and community members[.]" *Id.*

[126] *Id.* at 58.

[127] The Koke'e and Kekaha Ditch systems were created to "divert[] large amounts of water from intakes in the upland swamps and forests to sugarcane lands" to west Kaua'i. *Id.* at 57.

[128] *Id.* at 57.

[129] *Id.*

IV. LEGAL FRAMEWORK

A. Kaua'i Ordinance 960

Three of Hawai'i's counties have taken action against GMOs and pesticides: Kaua'i,[130] Maui,[131] and Hawai'i.[132] Kaua'i County Ordinance 960, codified as Kaua'i County Code ("KCC") sections 22-23. (2014), was at the center of the dispute in *Syngenta Seeds, Inc. v. Cty. of Kaua'i.*[133] Ordinance 960's purpose "is to establish provisions to inform the public, and protect the public from any direct, indirect, or cumulative negative impacts on the health and the natural environment of the people and place of the county of Kaua'i, by governing the use of pesticides and genetically modified organisms[.]"[134] Ordinance 960 has four major sections: Mandatory Disclosure of Pesticides and GMOs; Pesticide Buffer Zones; Environmental and Public Health Impacts Study ("EPHIS"); and Penalties for Noncompliance.[135]

Section 22-22.4, Mandatory Disclosure of Pesticides, and Genetically Modified Organisms, requires "all commercial agricultural entities that purchased or used in excess of five (5) pounds or fifteen (15) gallons of any single restricted-use pesticide during the prior calendar year[136] to disclose the use of all pesticides . . . during the following year."[137] Moreover, it is "mandatory for all commercial agricultural entities that intentionally or knowingly possess any genetically modified organism to disclose the growing of said genetically modified organism."[138]

Section 22-22.5, Pesticide Buffer Zones, requires Commercial Agricultural Entities "to restrict the growing of crops" surrounding certain

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[130] *See* Syngenta Seeds, Inc. v. Cty. of Kaua'i, No. 14-00014 BMK, 2014 WL 4216022, at *1 (D. Haw. Aug. 25, 2014) (holding that Ordinance 960 is preempted by state law). This Article will focus on Kaua'i County.

[131] *See* Robert Ito Farm, Inc. v. Cty. of Maui, 111 F. Supp. 3d 1088, 1093 (D. Haw. 2015) (holding that the Maui County ordinance is preempted by state and federal law).

[132] *See* Hawai'i Floriculture & Nursery Ass'n v. Cty. of Hawai'i, Civ. No. 14-00267 BMK, 2014 WL 6685817, at *1 (D. Haw. Nov. 26, 2014) (holding that Hawai'i County Ordinance 13-121 is preempted by state law and, in part, expressly preempted by the federal Plant Protection Act). Hawai'i County Ordinance 13-121 provides that "[n]o person shall knowingly engage in the open[-]air cultivation, propagation, development, or testing of genetically engineered crops or plants." *Id.* (citing COUNTY OF HAWAI'I, HAW., HAWAI'I COUNTY CODE (2016 ed.) § 14-130 (2016)).

[133] *Syngenta*, 2014 WL 4216022, at *1.

[134] COUNTY OF KAUA'I, HAW., KAUA'I COUNTY CODE 1987 § 22-22.2.

[135] *See generally id.*

[136] Also known as Commercial Agricultural Entities.

[137] *Id.*

[138] *Id.* § 22-22.4(b).

specified areas such as "dwellings, parks, and public roadways."[139] Section 22-22.6, EPHIS, requires Kaua'i County to complete a study "to address key environmental and public health questions related to large-scale commercial agricultural entities utilizing pesticides and genetically modified organisms."[140] Finally, section 22-22.7 (Penalties) outlines civil and criminal penalties for violating Ordinance 960's provisions.[141] Because Ordinance 960 was more stringent than state and federal statutes and regulations,[142] the seed companies moved to prevent its implementation.[143]

B. Syngenta Seeds, Inc. v. Cty. of Kaua'i, *No. 14-00014 BMK, 2014 WL 4216022 (D. Haw. Aug. 25, 2014)*

Plaintiffs, Syngenta Seeds, Inc; Syngenta Hawai'i, LLC; Pioneer HI-Bred International, Inc.; Agrigenetics, Inc.; and BASF Plant Science LP, sued the County of Kaua'i to prevent it from implementing Bill 2491 (Ordinance 960).[144] Plaintiffs contended that their seed production activities could not have commenced in Hawai'i "without the exhaustive review of potential health, safety and environmental risks by federal and state agencies, which have conclusively determined that (1) GM[145] plants present no such risks, and (2) the pesticides Plaintiffs use present no unreasonable risks to the environment or public health."[146] Thus, the Plaintiffs claim that Ordinance 960's purpose was "already addressed by the comprehensive state and federal regulatory programs."[147]

The United States District Court for the District of Hawai'i agreed, in part, holding that Ordinance 960 is preempted by state law and is therefore

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[139] *Id.* § 22-22.5(a).

[140] *Id.* § 22-22.6.

[141] *Id.* § 22-22.7.

[142] *See* 7 U.S.C. § 136i-1(b) (West, WestlawNext through P.L. 115-22) (containing provisions concerning privacy protections for pesticides, as part of the Federal Insecticide Fungicide and Rodenticide Act); 7 U.S.C. § 7756(b)(1) (2000) (authorizing the Secretary of Agriculture to prohibit or restrict the importation or movement in interstate commerce of noxious weeds, which can directly or indirectly injure or cause damage to crops, public health, or the environment).

[143] *See* First Amended Complaint for Declaratory and Injunctive Relief at 2, Syngenta Seeds, Inc. v. Cty. of Kaua'i, No. 14-00014 BMK, 2014 WL 4216022 (D. Haw. Aug. 25, 2014). *See also infra* Part V.A (discussing the circumstances that led to Kaua'i County passing Ordinance 960).

[144] First Amended Complaint for Declaratory and Injunctive Relief at 2, *Syngenta*, 2014 WL 4216022.

[145] First Amended Complaint for Declaratory and Injunctive Relief at 3, *Syngenta*, 2014 WL 4216022.

[146] *Id.*

[147] *Id.*

invalid.[148] In reaching this conclusion, the district court reasoned that Kaua'i County has some authority to regulate agriculture.[149]

This was only one step in the analysis, however, and the district court then concluded that Hawai'i Revised Statutes ("HRS") § 149A[150] impliedly preempts the aspects of Ordinance 960 pertaining to pesticide regulation.[151] One test to determine whether a county ordinance conflicts with a statute is "whether it prohibits what the statute permits or permits what the statute prohibits."[152] Plaintiffs argued that Ordinance 960 conflicted with state law in two instances:

> [1] that the pesticide notification requirements of Ordinance 960 directly conflict with HRS § 149A-31.2, which states that the Department of Agriculture "shall publish on its website the public information contained in all restricted use pesticide records, reports, or forms submitted to the department, except those records, reports or forms . . . protected by section 92F-13"[;]. . . .
>
> . . . . [and (2)] "that, to the extent the County relied upon its authority to regulate nuisance under HRS § 46-1.5(12), the Hawai[']i's Right to Farm Act, HRS § 165-1 et seq., expressly precludes the County from enacting legislation that regulates agriculture as a nuisance.[153]

First, Ordinance 960 does not conflict with HRS § 149A-31.2 because "[a]lthough Plaintiffs make generic reference to 'trade secrets' and 'confidential business information,' they have not identified any specific information that would be disclosed pursuant to Ordinance 960 in violation

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[148] Syngenta Seeds, Inc. v. Cty. of Kaua'i, No. 14-00014 BMK, 2014 WL 4216022, at *1 (D. Haw. Aug. 25, 2014). This Article will discuss only the court's analysis on state preemption because that was the primary issue appealed in the United States Court of Appeals for the Ninth Circuit. *See* Syngenta Seeds, Inc. v. Cty. of Kaua'i, 842 F.3d 669, 674 (9th Cir. 2016) (upholding the District Court for the District of Hawai'i's decision that Kaua'i Ordinance 960 is preempted by Hawai'i State law).

[149] *See Syngenta*, 2014 WL 4216022, at *4.

> HRS § 205-43, a portion of the state land use law enacted to effectuate the mandate to preserve agricultural lands propounded in art. XI § 3, expressly recognizes that counties have a role to play in formulating "agricultural policies, tax policies, land use plans, ordinances, and rules" to promote the long-term viability of agricultural use of important agricultural lands. Accordingly, the legislature has expressly recognized that the counties have some role to play in enacting regulations that affect the field of agriculture.

Id. (quoting HAW. REV. STAT. § 205-43).

[150] Chapter 149A is Hawai'i's Pesticide Law. HAW. REV. STAT. § 149A (West, WestlawNext through Act 1 (End) of the 2016 Second Special Session).

[151] *Syngenta*, 2014 WL 4216022, at *4.

[152] *Id.* at *5.

[153] *Id.* (alteration in original) (citing HAW. REV. STAT. § 149A-31.2(a)).

of section 92F-13."[154] Therefore, the district court determined that Ordinance 960 does not "prohibit[] what section 92F-13 permits or permit[s] what the statute prohibits."[155]

Second, the district court held that Ordinance 960 does not conflict with the Right to Farm Act.[156]

> The Right to Farm Act is concerned with nuisance lawsuits against farmers arising from the increasing urbanization of traditionally agricultural areas of the State. As such, the substantive provisions of the statute are essentially burden shifting, providing for a rebuttable presumption that "generally accepted agricultural and management practices" do not constitute a nuisance. Accordingly, the Right to Farm Act does not categorically preclude nuisance lawsuits, nor preclude a legislative body or court from concluding that a particular practice constitutes a nuisance."[157]

Next, the district court analyzed "whether the Ordinance legislates 'in an area already staked out by the legislature for exclusive and statewide statutory treatment.'"[158] If a court finds that the subject matter overlaps, then it moves on to analyze the uniformity and exclusivity of a statutory scheme.[159] In analyzing whether the subject matter overlaps, the district court ruled that Ordinance 960 regulates pesticide use through "record keeping and reporting, and areas of permissible planting and associated pesticide use."[160] The district court then held that the state statutory scheme covers the same subject matter as Ordinance 960.[161]

Moreover, the district court held that the state regulatory framework, "viewed in the context of statewide constitutional concern for agriculture set out in art. XI [section] 3[162] and the administrative structures established

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[154] *Id.*

[155] *Id.*

[156] *Id.*

[157] Syngenta Seeds, Inc. v. Cty. of Kaua'i, No. 14-00014 BMK, 2014 WL 4216022, at *5 (D. Haw. Aug. 25, 2014) (quoting HAW. REV. STAT. § 165-4 (2001)) (citation omitted).

[158] *Id.* at *6 (quoting Richardson v. City & Cty. of Honolulu, 868 P.2d 1193, 1207 (Haw. 1994)).

[159] *Id.*

[160] *Id.* at *7.

[161] Syngenta Seeds, Inc. v. Cty. of Kaua'i, No. 14-00014 BMK, 2014 WL 4216022, at *7 (D. Haw. Aug. 25, 2014) (citing HAW. REV. STAT. §§ 149A-31 through 149A-37; Hawai'i Administrative Rules §§ 4-66 *et seq.*).

[162] HAW. CONST. art. XI, § 3.

> The State shall conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency and assure the availability of agriculturally suitable lands. The legislature shall provide standards and criteria to accomplish the foregoing.
>
> Lands identified by the State as important agricultural lands needed to fulfill the purposes above shall not be reclassified by the State or rezoned by its political

in the [Department of Agriculture ("DOA")] and [Department of Health ("DOH")] . . . evidences the legislature's intent that state law be both uniform and exclusive."[163] The district court reasoned that the counties' absence from the state pesticide framework of rulemaking, oversight, and enforcement further "evidences the legislature's intent that the State have exclusive authority over pesticide regulation."[164] As a result, the district court held that Ordinance 960's pesticide provisions are preempted by state law and therefore invalid.[165]

The district court then analyzed whether Ordinance 960's GMO reporting requirements were preempted by state laws.[166] Ordinance 960 requires Plaintiffs to disclose "a general description of each GMO grown (e.g. "GMO corn" or "GMO Soy"), a general description of its geographic location . . . and the date each GMO crop was introduced into the land in question."[167] The district court found that "[t]his provision is premised in part upon the finding that GMO crops could have negative 'environmental and economic impacts' due to seed and pollen transfer, and in part due to the pesticide use associated with these crops."[168] As with pesticide regulation, the district court had to analyze "whether the statutory scheme at issue indicates a legislative intention, either express or implied, to be exclusive and uniform throughout the state."[169]

The district court quoted statutes authorizing DOA to identify plants that may be harmful to the environment.[170] Although the quoted statutes do not set out reporting requirements for GMOs like Ordinance 960, the district court noted that "they do set out the State's role in identifying potentially harmful plants, which is precisely what the County reporting requirement is premised upon."[171] Similar to the district court's analysis of the state pesticide law,

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subdivisions without meeting the standards and criteria established by the legislature and approved by a two-thirds vote of the body responsible for the reclassification or rezoning action.

Id.

[163] *Syngenta*, 2014 WL 4216022, at *8.

[164] *Id.*

[165] *Id.*

[166] *Id.*

[167] *Id.* (citing KAUA'I COUNTY, HAW. CODE § 22-23.4(b)(2) (2013)).

[168] *Id.* (citation omitted).

[169] Syngenta Seeds, Inc. v. Cty. of Kaua'i, No. 14-00014 BMK, 2014 WL 4216022, at *8 (D. Haw. Aug. 25, 2014) (quoting Richardson v. City & Cty. of Honolulu, 868 P.2d 1193, 1209 (Haw. 1994)).

[170] *Id.* at *9 (quoting HRS §§ 141-2, 150A-6.1, 150A-10, 152-1).

[171] *Id.*

> the Court f[ound] that these statutory provisions, in the context of art. XI § 3, the comprehensive administrative system established under the DOA, and the complete absence of reference to counties or local government therein evidence the legislature's intent that the state scheme for the regulation of specific potentially harmful plants be both uniform and exclusive preempting the imposition of local regulations on this specific issue.[172]

Accordingly, the district court ruled that Ordinance 960's GMO reporting provision was preempted by state law and therefore invalid.[173]

C. Syngenta Seeds, Inc. v. Cty. of Kaua'i, *842 F.3d 669 (9th Cir. 2016)*

The County of Kaua'i and Defendant-Intervenors[174] appealed the district court's decision and contended "that the district court erred in finding Ordinance 960's pesticides provisions impliedly preempted by state law. They also [argued] that the district court erred in denying their motion to certify the implied preemption issue to the Hawai'i Supreme Court[.]"[175] The Ninth Circuit Court of Appeals applied the same comprehensive statutory scheme test that Hawai'i courts use to decide preemption claims.[176] Applying the comprehensive statutory scheme test, the court analyzed three elements, "including showings that (1) the state and local laws address the same subject matter; (2) the state law comprehensively regulates that subject matter; and (3) the legislature intended the state law to be uniform and exclusive."[177]

The Ninth Circuit Court of Appeals ruled "that the Hawai'i Pesticides Law comprehensively regulates pesticides and creates a clear inference of legislative intent to preempt local regulations of pesticides."[178] The Ninth Circuit Court of Appeals then held that "Ordinance 960's pesticide

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[172] *Id.*

[173] *Id.*

[174] The Defendant-Intervenors are Ka Makani Ho'opono; Center for Food Safety; Pesticide Action Network North America; and Surfrider Foundation. Syngenta Seeds, Inc. v. Cty. of Kaua'i, 842 F.3d 669 (9th Cir. 2016). Ka Makani Ho'opono is "a group of local residents living near the spraying operations"; Center for Food Safety, Pesticide Action Network North America and Surfrider Foundation are "public interest nonprofits whose missions concern addressing the impacts of the of the Chemical Companies' operations, and whose members are affected by them[.]" Intervenor-Defendants-Appellants' Opening Brief at 5, Syngenta Seeds, Inc. v. Cty. of Kaua'i, 842 F.3d 669 (9th Cir. 2016) (Nos. 14-16833, 14-16848).

[175] *Syngenta*, 842 F.3d at 674.

[176] *See id.* at 675.

[177] *Id.*

[178] *Id.* at 681.

provisions are impliedly preempted by Hawai'i law and beyond the County's power under HRS § 46-1.5(13)."[179]

D. Public Trust Doctrine

In 1892, the Supreme Court articulated the public trust doctrine in *Illinois Central Railroad Co. v. Illinois*.[180] The public trust doctrine can be an "effective legal tool for protection of natural resources."[181] The classic form of the public trust doctrine from *Illinois Central* "applies to tidal and navigable waters and the submerged lands beneath them."[182] The public trust doctrine operates "as a limitation on the alienation of these resources by the government."[183] For example,

> [i]n *Illinois Central*, the Court ruled that because the state of Illinois held title to the submerged land of Lake Michigan "in trust for the people of the State," the state's conveyance of such land to a private party was "necessarily revocable, and the exercise of the trust by which the property was held by the State can be resumed at any time."[184]

In 1898, the Territorial Supreme Court of Hawai'i, in *King v. Oahu Ry.*,[185] adopted the public trust doctrine.[186] The decision in *King*, however, did not apply the public trust principles to freshwater resources.[187] Instead, the court "commodified freshwater as private property."[188] Water law in

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[179] *Id.*

[180] *See* Illinois Cent. R.R. Co. v. Illinois, 146 U.S. 387 (1892) (holding that the state of Illinois is the owner of submerged land, thus, applying the public trust doctrine to deny the grant of that land to Illinois Central Railroad Company).

[181] Sproat & Moriwake, *supra* note 115, at 254.

[182] *Id.*

[183] *Id.*

[184] *Id.* (quoting *Illinois Cent.*, 146 U.S. at 452).

[185] *Id.* (discussing King v. Oahu Ry., 11 Haw. 717, 725 (Haw. 1899) (holding that "the people of Hawai'i hold the absolute right to all its navigable waters and the soils under them for their own common use.")).

[186] The public trust doctrine in Hawai'i actually originated from Native Hawaiian custom and tradition. *See In re* Water Use Permit Applications, 9 P.3d 409, 450 (Haw. 2000) ("uphold[ing] the exercise of Native Hawaiian and traditional and customary rights as a public trust purpose."); SPROAT, *Water Law in Hawai'i*, *supra* note 90, at 539.

> Many trace the public trust's origin to English and Roman law . . . long before the 1978 constitutional provisions, cases and laws from the Kingdom of Hawai'i, along with Native Hawaiian custom and tradition, firmly established the principle that natural resources, including water, were not private property but were held in trust by the government for the benefit of the people.

SPROAT, *Water Law in Hawai'i*, *supra* note 90, at 539.

[187] SPROAT & MORIWAKE, *supra* note 115, at 254.

[188] *Id.*

Hawai'i began to change due to sociopolitical developments caused by the general democratization of society and local government and the decline of the plantation economy.[189]

In 1973, in *McBryde v. Robinson*, the Hawai'i Supreme Court, "relying on Hawaiian custom and kingdom law, repudiated the territorial precedent regarding freshwater resources and reinstated the original concept of water as 'reserved for the people of Hawai'i for their common good.'"[190] In 1978, a constitutional convention "led to the adoption of the public trust doctrine in several amendments to the [Hawai'i] [S]tate [C]onstitution, including the express declaration that '[a]ll public natural resources are held in trust by the State for the benefit of its people.'"[191]

The 1978 Hawai'i State Constitutional Convention also led to the addition of Article 11, section 9, which was ratified on November 7, 1978.[192] Article 11, section 9 of the Hawai'i Constitution guarantees:

> Each person has the right to a clean and healthful environment, as defined by laws relating to environmental quality, including control of pollution and conservation, protection and enhancement of natural resources. Any person may enforce this right against any party, public or private, through appropriate legal proceedings, subject to reasonable limitations and regulation as provided by law.[193]

The amendments following the 1978 Hawai'i State Constitutional Convention, described above, are vital to the discussion regarding GMOs and pesticides because they provide state constitutional rights to Hawai'i's people.[194] Kaua'i's citizens, like those in Waimea, need protection from those who control the land and water: the seed companies.[195]

E. Hawai'i Environmental Policy Act

In addition to the constitutional rights provided to Hawai'i citizens with regard to environmental protection, the Hawai'i Environmental Policy Act ("HEPA")[196] affords additional environmental protection.[197] HEPA "was

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[189] *Id.* at 255.

[190] *Id.* (quoting McBryde v. Robinson, 54 Haw. 174, 186–87 (Haw. 1973)).

[191] *Id.* at 256 (citing and quoting HAW. CONST. art. XI, §§ 1, 7).

[192] *Id.*

[193] HAW. CONST. art. XI, § 9 (West, WestlawNext through Act 1 (End) of the 2016 Second Special Session, pending revision by the revisor of statutes).

[194] *See* HAW. CONST. art. XI, §§ 1, 7, 9.

[195] *See infra* Part III.C. *See also* ENG, *supra* note 115, at 57–58 (describing how the seed companies moved into the position of power in west Kaua'i that the sugar cane plantations used to hold).

[196] The author would like to point out that HEPA is actually HRS chapter 344. HRS

first enacted in 1974 to ensure that the environmental consequences of actions proposed within our state are appropriately considered."[198] HEPA is modeled after the National Environmental Protection Act ("NEPA")[199] and provides a system of environmental review that NEPA does not cover, ensuring that the proper agencies consider the environmental consequences of a broader range of actions.[200] Along with considering the environmental consequences of a proposed action, HEPA also "provides a method for public notification and review in the planning process."[201] This is a key feature of HEPA's process because it allows the public to provide input on proposed land uses that the applicant is required to address.[202]

"HEPA requires that government establish a system of environmental review to the environmental, social, cultural and economic impacts of proposed projects or programs prior to implementation."[203] This is achieved by requiring that an applicant or agency prepare an environmental

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chapter 344, however, has no enforceable provisions and merely lays out Hawai'i's environmental policy. *See* Denise Antolini, Assoc. Dean, Lecture, University of Hawai'i Law School (Nov. 2016) (lecturing in Environmental Law about HEPA). HRS chapter 343 is enforceable and its provisions are commonly referred to as HEPA, even though its title is different. *See id.*

[197] *See* HAW. REV. STAT. ch. 343 (West, WestlawNext through Act 1 (End) of the 2016 Second Special Session).

> The legislature finds that the quality of humanity's environment is critical to humanity's well[-]being, that humanity's activities have broad and profound effects upon the interrelations of all components of the environment, and that an environmental review process will integrate the review of environmental concerns with existing planning processes of the State and counties and alert decision makers to significant environmental effects which may result from the implementation of certain actions. The legislature further finds that the process of reviewing environmental effects is desirable because environmental consciousness is enhanced, cooperation and coordination are encouraged, and public participation during the review process benefits all parties involved and society as a whole. It is the purpose of this chapter to establish a system of environmental review which will ensure that environmental concerns are given appropriate consideration in decision making along with economic and technical considerations.

Id.

[198] STATE OF HAWAI'I OFFICE OF ENVIRONMENTAL QUALITY CONTROL, HAWAI'I ENVIRONMENTAL POLICY ACT CITIZEN'S GUIDE 6 (2014) [hereinafter HEPA CITIZEN'S GUIDE].

[199] This paper will focus on HEPA because NEPA applies only to "major Federal actions," which are not applicable to Hawai'i's biotechnology industry. *See generally* 42 U.S.C.A. ch. 55; 42 U.S.C.A. §4332 (West, WestlawNext through P.L. 114-316).

[200] *See* HEPA CITIZEN'S GUIDE, *supra* note 198, at 6.

[201] *See id.*

[202] *See* HAW. REV. STAT. § 343-5 (West, WestlawNext through Act 1 (End) of the 2016 Second Special Session, pending revision by the revisor of statutes).

[203] *See* HEPA CITIZEN'S GUIDE, *supra* note 198, at 6.

assessment ("EA") or an environmental impact statement ("EIS") when the proposed action satisfies any of nine "triggers" listed.[204] An EA is "a written evaluation to determine whether an action may have a significant effect" on the environment.[205] An EIS is

> an informational document prepared in compliance with the rules adopted under section 343-6 and which discloses the environmental effects of a proposed action, effects of a proposed action on the economic welfare, social welfare, and cultural practices of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to

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[204] *See* HAW. REV. STAT. § 343-5. An environmental assessment is required by actions that:

> (1) Propose the use of state or county lands or the use of state or county funds, other than funds to be used for feasibility or planning studies for possible future programs or projects that the agency has not approved, adopted, or funded, or funds to be used for the acquisition of unimproved real property; provided that the agency shall consider environmental factors and available alternatives in its feasibility or planning studies; provided that an environmental assessment for proposed uses under section 205-2(d)(11) or 205-4.5(a)(13) shall only be required pursuant to section 205-5(b); (2) Propose any use within any land classified as a conservation district by the state land use commission under chapter 205; (3) Propose any use within a shoreline area as defined in section 205(A)-41; (4) Propose any use within any historic site as designated in the National Register or Hawai'i Register, as provided for in the Historic Preservation Act of 1966, Public Law 89-665, or chapter 6E; (5) Propose any use within the Waikīkī area of O'ahu, the boundaries for which are delineated in the land use ordinance as amended, establishing the 'Waikīkī Special District'; (6) Propose any amendments to existing county general plans where the amendment would result in designations other than agriculture, conservation, or preservation, except actions proposing any new county general plan or amendments to any existing county general plan initiated by a county; (7) Propose any reclassification of any land classified as a conservation district by the state land use commission under chapter 205; (8) Propose the construction of new or the expansion or modification of existing helicopter facilities within the State, that by way of their activities, may affect: (A) Any land classified as conservation district by the state land use commission under chapter 205; (B) A shoreline area as defined in section 205A-41; or (C) Any historic site as designated in the National Register or Hawai'i Register, as provided for in the Historic Preservation Act of 1966, Public Law 89-665, or chapter 6E; or until the statewide historic places inventory is completed, any historic site that is found by a field reconnaissance of the area affected by the helicopter facility is under consideration for placement on the National Register or the Hawai'i Register of Historic Places; and (9) Propose any: (A) Wastewater treatment unit, except an individual wastewater system or a wastewater treatment unit serving fewer than fifty single-family dwellings or the equivalent; (B) Waste-to-energy facility; (C) Landfill; (D) Oil refinery; or (E) Power-generating facility.

Id.

[205] *Id.* § 343-2.

> minimize adverse effects, and alternatives to the action and their environmental effects.[206]

If a project does not "trigger" HEPA's process, no EA or EIS is required.[207] A project that "triggers" HEPA may be exempt by statutory exclusions.[208] If a project does "trigger" HEPA, there are three ways to satisfy the requirements of HRS chapter 343:

> 1. Administrative exemption declaration (Section 11-200-8, HAR ["Hawai'i Administrative Rules"]); 2. Finding of no significant impact (FONSI) based on a final environmental assessment (FEA) (Section 11-200-11.2, HAR); 3. Determination of acceptance of a final EIS or if the approving agency fails to make a timely determination on the acceptability of the Final EIS (as described in Section 343-5[], HRS.[209]

Projects that "trigger" HEPA are required to complete an EA, unless the applicant or agency anticipates that an EIS is required from the outset.[210]

F. Federal Regulation of Pesticides and GMOs

The Environmental Protection Agency ("EPA") regulates pesticides at the federal level.[211] EPA regulates pesticides under the authority granted to it by the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA") and the Federal Food, Drug and Cosmetic Act ("FFDCA").[212] FIFRA "[r]equires all pesticides sold or distributed in the United States (including

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[206] *Id.*

[207] *See id.* § 343-5.

[208] *See* HEPA CITIZEN'S GUIDE, *supra* note 198, at 9.

> The following actions are also excluded from review by statute: 1. Purchase of the assets of the Waiāhole water system (Section 343-6.5, HRS)[;] 2. Proposed reconstruction, restoration, repair, or use of any Hawaiian fishpond provided that compliance with certain conditions in Section 183B-2, HRS is met; 3. Affordable housing, provided that compliance with certain conditions in Section 2014H-38, HRS is met; 4. Broadband infrastructure, provided that compliance with certain conditions in Act 151, SLH 2011, is met[.]"

Id. (alteration in original).

[209] *See id.* (alteration in original).

[210] *See* § 343-5(b); HEPA CITIZEN'S GUIDE, *supra* note 198, at 15. Part V.A, *infra*, analyzes the seed industry's lack of compliance with HEPA.

[211] *About Pesticide Registration*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/pesticide-registration/about-pesticide-registration#laws (last visited Feb. 16, 2018).

[212] *See generally* Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C.A. ch. 6 subchapter II (establishing federal regulations on pesticides); Federal Food, Drug and Cosmetic Act, 21 U.S.C.A. ch. 9, subchapter IV (providing federal regulations on food, including requiring FDA to set tolerances for pesticides in food and animal feed). *See also About Pesticide Registration*, *supra* note 211 (describing federal pesticide registration).

imported pesticides) to be registered by EPA."[213] The FFDCA requires EPA "to set pesticide tolerances for all pesticides used in or on food or in a manner that will result in a residue in or on food or animal feed."[214]

EPA has two classifications of pesticides: (1) restricted use pesticides ("RUPs"); and general use (unclassified) pesticides.[215] "RUPs have the potential to cause unreasonable adverse effects to the environment and injury to applicators or bystanders without added restrictions. The 'Restricted Use' classification restricts a product, or its uses, to use by a certified applicator or someone under the certified applicator's direct supervision."[216] Because of RUPs' increased risk of causing environmental harm without added restrictions, RUPs are not available to the general public.[217]

Three different federal agencies regulate GMOs under the authority of the Plant Protection Act ("PPA"): the United States Department of Agriculture's Animal and Plant Health Inspection Service ("APHIS"), the Food and Drug Administration ("FDA"), and EPA.[218]

> APHIS regulates the planting, importation, or transportation of GM plants[219] . . . By regulation, APHIS classifies most GM plants as plant pests or potential plant pests as "regulated articles."[220] Under the PPA, a regulated article must receive prior approval form APHIS before it is introduced.[221]

FDA regulates all human and animal food products as well as drugs and biological products.[222] "EPA regulates pesticides and microorganisms developed through genetic engineering."[223]

EPA "has a strenuous approval process that must be followed in order to approve pesticides for use[.]"[224] After a chemical is approved for use EPA continuously evaluates the risk that pesticides pose to human and

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[213] *About Pesticide Registration*, *supra* note 211.

[214] *Id.* "A tolerance is the maximum permissible level for pesticide residues allowed in or on human food and animal feed." *Id.*

[215] *Restricted Use Products (RUP) Report*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/pesticide-worker-safety/restricted-use-products-rup-report (last visited Feb. 16, 2018).

[216] *Id.*

[217] *See id.*

[218] *Restrictions on Genetically Modified Organisms: United States*, LIBRARY OF CONGRESS, https://www.loc.gov/law/help/restrictions-on-gmos/usa.php (last updated June 9, 2015).

[219] *Id.*

[220] *Id.* (citing 7 C.F.R. § 340.1 (West, WestlawNext through April 13, 2017)).

[221] *Id.* (citing 7 U.S.C. § 7711(a) (2012); 7 C.F.R. § 340.0 (2013)).

[222] *Id.*

[223] *Id.*

[224] THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 35.

environment health.[225] EPA "regularly sends out updates that reflect the evolving understanding of the risks that these chemicals pose, and how they should best be managed."[226]

G. State Enforcement of Pesticides and GMO Regulation

At the state level, the Hawai'i DOA, Plant Industry Division regulates pesticides.[227] DOA derives its authority from HAR chapter 66 and HRS chapter 149A.[228] DOA requires the state to certify RUP users.[229] Certified applicators are divided into two groups: Private Applicators and Commercial Applicators.[230] "Private Applicators are those who are involved in agricultural production (farming) on land operated by themselves or their employer. Commercial Applicators make up the rest" and consist of eleven different categories.[231]

In *Robert Ito v. Cty. of Maui*, the Federal District Court for the District of Hawai'i ruled that Hawai'i statutes and administrative rules governing DOA created a statutory scheme that covers the same subject matter as the Maui ordinance, which attempted to ban the cultivation of GMOs.[232] DOA regulates GMOs pursuant to Hawai'i Constitution, article XI, section 3;[233] HRS sections 141-2; [234] 150A-6.1;[235] 152-1;[236] 152-2;[237] and Hawai'i Administrative Rules (HAR) section 4-68.[238]

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[225] *See id.*

[226] *Id.*

[227] *Pesticides Rules and Laws*, HAWAII DEPARTMENT OF AGRICULTURE, http://hdoa.hawaii.gov/pi/pest/pesticides-rules-and-laws/ (last visited Feb. 16, 2018).

[228] *See* HAW. REV. STAT. § 149A (West, WestlawNext through Act 1 (End) of the 2016 Second Special Session) (Hawai'i's Pesticides Law; regulating pesticide use in Hawai'i); Haw. Admin. R. § 4-66 (2006) ("The objectives of these rules are to implement the requirements of chapter 149A, Hawaii Revised Statutes, which provides for the registration, licensing, certification, recordkeeping, usage, and other activities related to the safe and efficacious use of pesticides."). *See also Pesticides Rules and Laws*, *supra* note 227.

[229] *FAQ for Pesticides*, HAWAII DEPARTMENT OF AGRICULTURE, http://hdoa.hawaii.gov/pi/pest/faq-for-pesticides/ (last visited Feb. 16, 2018).

[230] *Id.*

[231] *Id.*

[232] Robert Ito Farm, Inc. v. Cty. of Maui, 111 F. Supp.3d 1088, 1110 (D. Haw. 2015).

[233] *See* HAW. CONST. art. XI, §3 (requiring the state to "conserve and protect agricultural lands" and vesting the state legislature with power to "provide standards and criteria" relevant to that goal); *Robert Ito*, 111 F. Supp.3d at 1109 ("The legislature has vested the State of Hawaii's Department of Agriculture with authority to oversee the introduction, propagation, inspection, destruction, and control of plants.").

[234] *See* HAW. REV. STAT. §§ 141-2(1), (2), (6) (West, Westlaw through Act 3 (End) of the 2017 Second Special Session, pending revision by the revisor of statutes) (vesting the Department of Agriculture with the authority to adopt, amend, and repeal rules for "the introduction . . . of plants," "exclusion . . . of any . . . seed . . . or any other plant growth or

V. ANALYSIS

A. Case Study: Waimea

This Article focuses on the effects of the agriculture biotechnology industry's presence on Kaua'i. As detailed above, out of all the Hawaiian Islands, Kaua'i has the most land devoted to seed production with 13,299 acres out of the state total of 23,728 acres.[239] Kaua'i is the fourth largest of the State's eight major islands,[240] yet it houses over fifty percent of the State's seed production.[241] According to a study conducted by The Joint Fact Finding Study Group ("Kaua'i Pesticide Study"),[242] seed production is the third largest agricultural activity behind range and pastureland on Kaua'i.[243]

The impetus for the Kaua'i Pesticide Study grew out of hearings on Bill 2491 and Ordinance 960.[244] Community members wanted Kaua'i County to enact regulations on pesticide use in response to the seed companies'

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plant product . . . injurious, harmful, or detrimental . . . to the agricultural or horticultural industries or the forests of the State," and "[t]he manner in which agricultural product promotion and research activities may be undertaken[.]").

[235] *See* HAW. REV. STAT. § 150A-6.1(a), (b) (West, WestlawNext through Act 3 (End) of the 2017 First Special Session, pending revision by the revisor of statutes) (authorizing the Department of Agriculture to "maintain a list of restricted plants that require a permit for entry into the State," if such plants "may be detrimental or potentially harmful to agriculture, horticulture, the environment, or animal or public health[.]").

[236] *See* HAW. REV. STAT. § 152-1 (West, WestlawNext through Act 3 (End) of the 2017 First Special Session, pending revision by the revisor of statutes).

[237] *See* HAW. REV. STAT. § 152-2 (Westlaw).

[238] *See* HAW. CODE R. § 4-68 (LexisNexis 2017).

[239] MELROSE ET AL., *supra* note 102, at 47 (detailing statistics from 2015).

[240] *See Why Meet on Kaua'i*, HAWAI'I TOURISM AUTHORITY, https://www.meethawaii.com/why-hawaii/kauai/ (last modified 2016).

[241] *See* MELROSE ET AL., *supra* note 102, at 47.

[242] The Kaua'i Pesticide Study investigated the following five questions:

> 1. Quantitatively, what are the actual "footprints" Kaua'i's large agribusinesses occupy and farm? 2. What pesticides do they use, in what quantities, and at what rates? 3. Are there detectable and measurable environmental health impacts on Kaua'i associated with seed company pesticide practices? 4. Are there detectable and measurable human health impacts on Kaua'i associated with seed company pesticide practices? 5. How does current regulatory oversight of these issues operate and is it sufficient to assure public safety?

THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 12. The report was limited by: lack of exposure data, limited health and environmental data, access to proprietary information, evolving scientific understandings, limited pesticide use data, narrow focus in a broader environmental context, and a narrow focus in a broader health context. *Id.* at 14–16.

[243] *Id.* at 6.

[244] *Id.*

negative impacts on the environment, health issues, and a lawsuit against DuPont Pioneer over property damage from test field dust.[245]

The Kaua'i Pesticide Study sought "to bring together available information on pesticide usage by Syngenta, Dow AgroSciences, DuPont Pioneer, BASF Plant Science, and Kaua'i Coffee as well as any possible impacts to environmental and human health from such usage."[246] The four seed companies[247] primarily farm on the west side of Kaua'i near Waimea and Kekaha, but also have research plots in Līhue, Kalaheo, and Kalepa Ridge above Hanamā'ulu.[248] Approximately 55% of the seed crops grown on Kaua'i by the seed companies are on private land, while approximately 45% are on publicly owned land.[249]

The fact that much of the land in the Waimea-Kekaha area is state land[250] is of great significance when viewed in light of HEPA.[251] One "trigger" that requires an EA are actions[252] that "[p]ropose the use of state or county lands[.]"[253] Using state land for agricultural purposes, such as growing crops and its associated pesticide usage, should trigger the HEPA process.[254] Despite this requirement, the seed companies on Kaua'i have never completed EAs or EISs for their farming operations.[255]

How can the seed companies get away with avoiding the HEPA process?[256] Surely the use of chemicals such as pesticides, developed to kill organisms, raises environmental concerns.[257] HEPA's fundamental purpose is "to establish a system of environmental review which will ensure that environmental concerns are given appropriate consideration in decision

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[245] Telephone Interview with Gary Hooser, *supra* note 43 (referring to Aana v. Pioneer HI-Bred Int'l Inc., Nos. 12-00231 LEK-BMK, 12-00665 LEK-BMK, 2014 WL 806224 (D. Haw. 2014) (deciding whether the plaintiffs are entitled to relief from property damage caused by dust blown from Pioneer's fields)).

[246] THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 6.

[247] The four seed companies operating on Kaua'i are Syngenta, Dow AgroSciences, DuPont Pioneer, BASF Plant Science. *See id.*

[248] *Id.* at 6–7.

[249] *Id.* at 20.

[250] *See* MELROSE ET AL., *supra* note 102, at 48.

[251] *See* HAW. REV. STAT. § 343-5(a) (West, Westlaw through Act 3 (End) of the 2017 First Special Session, pending revision by the revisor of statutes) (describing that an action that proposes the use of state land requires an EA).

[252] An action is "any program or project to be initiated by any agency or applicant." HAW. REV. STAT. § 343-2 (Westlaw).

[253] HAW. REV. STAT. § 343-5(a)(1) (Westlaw).

[254] *See id.*

[255] *See* Telephone Interview with Gary Hooser, *supra* note 43.

[256] *See* HAW. REV. STAT. § 343-5(a) (Westlaw).

[257] *See* Telephone Interview with Gary Hooser, *supra* note 43 (discussing how pesticides are engineered to kill life).

making along with economic and technical considerations."[258] The seed companies' use of state land is exactly the type of action that HEPA was established to assess.[259]

Hawai'i's plantation industry's use of pesticides has already been proven to harm the environment.[260] For example, the pesticide DBCP,[261] historically used in Hawai'i for pineapple production, has caused "sterility or impaired fertility in tens of thousands of farmworkers worldwide[.]"[262] In 1980, EPA was forced to shut down drinking water wells in Kunia, O'ahu, due to the presence of hazardous levels of pesticides, including DBCP.[263]

Another pesticide, heptachlor,[264] used by the pineapple industry, has been linked to breast cancer.[265] In 1982, elevated levels of heptachlor were found in milk from Hawai'i dairy farms and human breast milk.[266] Both of these pesticides mentioned, widely used in Hawai'i, were banned by the EPA.[267] These pesticides, however, were used in Hawai'i for five to six years after the EPA banned them.[268] The historical use of pesticides in Hawai'i offers an invaluable lesson: that "pesticides initially approved . . . as 'safe' are found to be hazardous"[269] only after years of use and thousands are harmed.

In light of the known environmental harms of past pesticide use, many are wary of the "safe" pesticides used today.[270] The use of state lands for

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[258] HAW. REV. STAT. § 343-1 (Westlaw).

[259] *See id.*

> The legislature finds that the quality of humanity's environment is critical to humanity's well[-]being, that humanity's activities have broad and profound effects upon the interrelations of all components of the environment, and that an environmental review process will integrate the review of environmental concerns with existing planning processes of the State and counties to alert decision makers to significant environmental effects which may result from the implementation of certain actions.

Id.

[260] HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 17.

[261] DBCP is a chemical produced by Dow. *Id.* at 36.

[262] *Id.*

[263] *Id.*

[264] "Heptachlor was used in the pineapple industry. Heptachlor-contaminated pineapple leaves were fed to dairy cows." *Id.* at 17 n. 9.

[265] *Id.* at 37 (citing Ruth H. Allen et al., *Breast Cancer and Pesticides in Hawai'i: The Need for Further Study*, ENVTL. HEALTH PERSP. 679-683 (Supp. 3 1997)).

[266] *Id.* at 36.

[267] *See id.* at 37.

[268] *Id.*

[269] *Id.*

[270] *See* Telephone Interview with Malia Chun, *supra* note 4.

growing GE seed crops should have "triggered" the HEPA process, but did not.[271] The associated pesticide usage on those crops is more than enough to prompt concern over the potential environmental effects.[272] The HEPA process is a useful tool to underrepresented communities because of the required public comment period.[273] Without going through the HEPA process, the public, including under-represented communities, is deprived of the opportunity to voice its concerns about the actions of the seed companies.[274] The seed companies' ability to sidestep the HEPA process contributes to the environmental injustice experienced by those living near GE test fields, like Malia Chun.[275]

The west side of Kaua'i is home to mostly under-represented residents, including Native Hawaiians.[276] Waimea, like many other rural communities, was once a sugar plantation community.[277] True to its history, Waimea is surrounded by agricultural land.[278] Instead of sugar cane fields, however, Waimea is bordered by seed crops on two sides.[279] This may be problematic for several reasons: pesticides used on the crops can "migrate through air, water, soil, or animal carriers."[280] The seed companies do not just use pesticides that the everyday consumer can buy; the seed companies also use RUPs.[281]

As mentioned previously in Part IV.F, RUPs "have the potential to cause unreasonable adverse effects to the environment and injury to applicators or

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[271] *See* HAW. REV. STAT. § 343-5(a) (West, Westlaw through Act 1 (End) of the 2016 Second Special Session, pending revision by the revisor of statutes) (one HEPA "trigger" is "[p]ropos[ing] the use of state or county lands"); *Id.*

[272] *See* HAW. REV. STAT. § 343-1 (Westlaw) (providing that "[t]he legislature finds that the quality of humanity's environment is critical to humanity's well being [and] that humanity's activities have broad and profound effects upon the interrelations of all components of the environment[.]").

[273] *See* HAW. REV. STAT. § 343-5 (Westlaw) (requiring that "draft statements shall be made available for public review and comment through the office for a period of forty-five days.").

[274] *See* HAW. REV. STAT. § 343-5(c) (Westlaw) (requiring that draft and final statements shall be made available for public review and comment).

[275] *See* Telephone Interview with Gary Hooser, *supra* note 43.

[276] *See QuickFacts Kauai County, Hawaii*, U.S. CENSUS BUREAU, https://www.census.gov/quickfacts/table/LND110210/15007,1578500 (last visited Feb. 16, 2018) (providing that pure Native Hawaiians and other Pacific Islanders make up roughly 9.1% of Waimea's population). *See also* Telephone Interview with Malia Chun, *supra* note 4; Telephone Interview with Stacy Sproat-Beck, Exec. Dir., Waipā Foundation (Feb. 19, 2017).

[277] *See* Telephone Interview with Stacy Sproat-Beck, *supra* note 276.

[278] *See* THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 18. *See also* Exhibit 1.

[279] *Id. See also* Exhibit 1.

[280] THE JOINT FACT FINDING STUDY GROUP, *supra* note 119.

[281] *See id.* RUP stands for restricted use product or pesticide. *Id.* at 4.

bystanders without added restrictions."[282] EPA's classification of pesticides as RUPs raises red flags as to the possible adverse effects of the seed companies' use of RUPs.[283] Regardless of the type of pesticides that seed companies are using, the seed companies use pesticides in some areas that are in close proximity to residents.[284] This is concerning because herbicide-resistant crops are the most common GE crop in Hawai'i.[285]

From 2014 to 2015, "82% of GE field releases in Hawai'i . . . have involved crops resistant to one or more herbicide(s)."[286] Even more concerning is that herbicide-resistant crops have actually increased pesticide usage due to weeds becoming pesticide-resistant.[287] In response to these "super weeds," seed companies have started to develop "GE crops resistant to a host of toxic herbicides."[288] This means that weeds will begin to develop even more resistance to pesticides, thereby increasing pesticide usage in the future.[289]

Hawai'i is not just another state that hosts GE crops; Hawai'i "has had more outdoor field releases of GE crops than any other state in the nation."[290] This fact is significant considering that "Hawai'i is much smaller than Midwestern states where GE crops are also frequently tested."[291] Consequently, Hawai'i "has a much higher ***density*** of field tests."[292] Those are just the statistics of GE field tests for Hawai'i as a state.[293] Considering how Kaua'i contains more than half the acreage of seed crops in the whole state,[294] Kaua'i's citizens are even more likely to live in close proximity to field test sites.[295]

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[282] *Restricted Use Products (RUP) Report*, *supra* note 215.

[283] *See id.*

[284] *See* THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 79–81.

[285] *See* HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 11.

[286] *Id.* at 12.

[287] *See* Gibson, *supra* note 29, at 250–53; Eng, *supra* note 115, at 13 ("Herbicide-resistant genes are being transferred from genetically engineered crops to weeds via cross-pollination, and higher and higher doses of chemicals are being needed to have the desired effect, leading to a rise in herbicide use); HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 12.

[288] HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 12.

[289] *See id.*

[290] *Id.* at 10.

[291] *Id.*

[292] *Id.* For example, "Hawai'i has had 9.2 times more GE crop field releases per unit land area than Illinois, suggesting that more people in Hawai'i live in closer proximity to field test sites than people in other states." *Id.*

[293] *See id.*

[294] MELROSE ET AL., *supra* note 102, at 47.

[295] *See* HAW. CTR. FOR FOOD SAFETY, *supra* note 16.

Waimea is a painful example of a community within close proximity to GE fields.[296] As mentioned in Part III.C above, pesticides can migrate from the fields they are sprayed on through the air.[297] With so many ways that pesticides may migrate from GE fields, communities nearby can be at risk of exposure to such chemicals.[298] Malia Chun's experience detailed in Part I, are mere snippets from communities affected by pesticides. Such reports

> likely represent a small fraction of actual pesticide poisoning cases, for several reasons. Many pesticide drift incidents go unreported. Hawai'i does not have a "pesticide poisoning surveillance program" of the sort established in eleven other states. And even when drift victims do seek medical attention, many physicians lack the training to recognize the effects of pesticide poisoning, and so do not report it.[299]

Although studies examining the health effects of pesticide exposure remain inconclusive,[300] physicians from west Kaua'i are concerned about pesticide drift.[301] For example, they encounter "'almost daily reports of respiratory symptoms in patients that have no history of these respiratory illnesses' . . . They also report recurring nose bleeds in children and recurring dermatitis, among other symptoms."[302]

The respiratory issues experienced by Waimea residents are likely caused by "fugitive dust" blown in from adjacent fields.[303] This "fugitive dust," which contains fine dust particles, can enter the lungs and cause bronchitis.[304] Waimea happens to be "downwind of a 1,000-acre DuPont-Pioneer seed corn operation[.]"[305] Large amounts of dust have blown off of DuPont's farming operations.[306] So much, in fact, that Waimea residents filed a complaint against Pioneer (now known as DuPont-Pioneer) for property damage.[307] The number of Waimea residents affected and damage to their property was so severe, that the plaintiffs sought $20,000,000 for damage to their property.[308] Although this lawsuit was over property

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[296] *See* THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 79–81. *See also* Exhibit 2 for a map of the proximity of schools to known RUP users.

[297] *See id.* at 36.

[298] *See id.* at 39.

[299] HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 19 (internal citations omitted).

[300] *See* THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 91–92.

[301] *See* HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 19.

[302] *Id.*

[303] *See id.*

[304] *See id.*

[305] *Id.* (internal citation omitted).

[306] *See* Aana v. Pioneer HI-Bred Int'l, Inc., No. CV 12-00231 JMS-BMK, 2012 WL 3542503, at *1 (D. Haw. July 24, 2012).

[307] *See id.*

[308] *See id.* at *2.

damage, it proves that dust from seed companies' GE fields are migrating to where Waimea's citizens live and potentially causing health problems.[309]

Although property damage and the health risks of breathing dust are causes to worry about, this dust poses another danger.[310] The dust is most likely contaminated by pesticides.[311] "Fugitive dust" is even more harmful if contaminated by pesticides.[312] As mentioned in Part III.C above, one of the ways that pesticide drift can occur is when contaminated dust is carried on the wind.[313] If dust from GE test fields is blowing into Waimea homes, so are invisible liquid or gas pesticide particles.[314] How can Waimea citizens protect themselves from dust particles?[315] Or even smaller liquid and gas particles?[316] The only way for Waimea citizens to be protected is through regulation of the seed companies, which has been inadequate.[317]

Besides the respiratory issues that west Kaua'i physicians worry are caused by pesticide drift,[318] pesticides may be a factor in more serious health issues.[319] For example, "Dr. James Raelson and . . . Dr. Chatkupt, practicing pediatricians in Kaua'i, have noted an unusually high incidence of rare birth defects involving malformations of the heart in Kaua'i over the past seven years,[320] at roughly ten times the national rate."[321]

Another serious health concern that pesticide exposure may play a factor in is cancer.[322] "Kaua'i physicians and residents have . . . noted a 'cancer cluster' in Waimea—37 cases in a neighborhood of just 800—which is said to be 10 times the statewide cancer rate."[323] A report by the Hawai'i Department of Health disputed the existence of the cancer cluster in Waimea, however, the author "conceded that her analysis was

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[309] *See id.*

[310] *See* THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 39.

[311] *See id.*

[312] HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 39.

[313] *See* THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 39.

[314] *See Aana*, 2012 WL 3542503, at *2.

[315] *See* Telephone Interview with Gary Hooser, *supra* note 43; Telephone Interview with Malia Chun, *supra* note 4.

[316] *See* Telephone Interview with Gary Hooser, *supra* note 43; Telephone Interview with Malia Chun, *supra* note 4.

[317] *See* Telephone Interview with Gary Hooser, *supra* note 43.

[318] *See* HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 39.

[319] *Id.*

[320] *Id.* at 39 (citing Dr. Raelson's email testimony to Kaua'i County Council for Bill 2491 regarding birth defects of west side babies) (internal citation omitted).

[321] *Id.* It should be noted that "Hawai'i Birth Defects Program (HBDP) birth defect information was not available for 2005–2010 due to DOH budget cutbacks that impacted recording of them." *Id.* at 59.

[322] *Id.* at 39.

[323] *Id.*

inconclusive[.]"[324] Moreover, she reportedly said: "If I lived there, it would concern me."[325] Although there is no definitive proof right now that pesticide usage by the seed companies are causing human health effects, we should be wary of pesticide use.[326] Especially in light of some of the banned pesticides used in Hawai'i's past, mentioned above.[327]

In addition to the human health effects of pesticide exposure, pesticides also have detrimental environmental health effects.[328] Although pesticides can move through the natural environment after application and expose unintended organisms, there is not enough data to make a full assessment of the risks to Kaua'i's environment.[329] Even though there is not enough pesticide exposure data, pesticides have been detected in Kaua'i's environment.[330] "Pesticides can move beyond their agricultural targets through water, air, soil, dust, or biological carriers."[331] Because of the many ways that pesticides can move throughout the environment, pesticides were found in many different environmental samples.[332]

Various agencies and organizations have conducted studies on Kaua'i's drinking water, surface waters, and aquatic ecosystems.[333] Although most of the detected pesticides were below EPA standards,[334] the levels of two

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[324] *Id.*

[325] *Id.* (internal citation omitted).

[326] *See* HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 36-37.

[327] *See id.* at 17–18.

[328] *See* THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 35.

[329] *Id.*

[330] *See id.*

[331] *Id.* at 90. In Waimea, fugitive dust was carried from DuPont Pioneer's test fields into residents' homes. *See* Aana v. Pioneer HI-Bred International, Inc., No. CV 12-00231 JMS-BMK, 2012 WL 3542503, at *3–4 (D. Haw. July 24, 2012).

[332] *See* THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 35–51. Environmental sampling studies were:

> [l]imited mostly to individual, non-repeated studies, many of these reveal the presence of pesticides, some of which may be from contemporary agriculture or migration from other sources such as structural fumigation. Others may be residual from previous agriculture. Most were in trace amounts and at levels below EPA action standards with a few important exceptions.

Id. at 90.

[333] *See id.* at 41–46.

[334] To assess pesticide risks, EPA completes an ecological risk assessment. *See Ecological Risk Assessment for Pesticides: Technical Overview*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/ecological-risk-assessment-pesticides-technical (last updated Aug. 5, 2016) (describing the procedure and science behind the ecological risk assessment). EPA standards, however, should be taken with a grain of salt because of the pesticides that were banned after previously approved by EPA. *See* HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 37.

RUPs "exceeded EPA environmental benchmarks for aquatic life."[335] These two RUPs, atrazine and metolachlor, were likely from recent use on GE test fields.[336] The presence of these pesticides "does not necessarily mean that there has been an adverse impact or harm to individual organisms or the aquatic ecosystem. Exposure studies would be needed for that determination."[337]

The lack of exposure studies[338] is concerning. More studies need to be conducted to determine whether currently used pesticides are harming the environment.[339] Pesticides are engineered to kill organisms, which means they could harm unintended organisms like those necessary to pollinate plants.[340] For example, several dozen pesticides are known to kill some species of bees and butterflies.[341] To protect against the killing of unintended organisms, more regulation is necessary to ensure that pesticides are used safely.[342]

The seed companies' lack of disclosure on which pesticides they are spraying, in what quantities, and how often, leave underrepresented communities, like Waimea, in the dark.[343] With less available resources, underrepresented communities do not have much power to protect themselves.[344] The story would not be the same if affluent, white communities were located near seed test fields.[345] Sadly, people like Malia are forced to suffer at the mercy of the seed companies.[346]

B. The Legal System and Environmental Justice

The Ninth Circuit Court of Appeal's decision in *Syngenta*, upholding the district court's decision,[347] is a huge blow for communities in Kaua'i. This decision is an example of the legal system unintentionally perpetuating

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[335] THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 90.

[336] *Id.*

[337] *Id.* at 44.

[338] *See id.*

[339] As of 2015, "analytical studies of wildlife are yet to be done." *See id.* at 90.

[340] *See id.*

[341] *Id.*

[342] *See* Telephone Interview with Gary Hooser, *supra* note 43.

[343] *See id.*

[344] *See id.*

[345] *See id.* (commenting that seed companies would not be able to continue their modes of operation if people with more power were affected by the seed companies).

[346] *See* Telephone Interview with Malia Chun, *supra* note 4.

[347] *See* Syngenta Seeds, Inc., Cty. of Kaua'i, 842 F.3d 669, 681 (9th Cir. 2016) (holding that the Hawai'i Pesticides Law impliedly preempts Ordinance 960's pesticide provisions, that Hawai'i law impliedly preempts Ordinance 960's GE crop reporting provision, and that the district court did not abuse its discretion in denying Defendant's motion to certify).

environmental racism.[348] The people of Kaua'i have voiced their concerns over GMO crops and their associated pesticide usage and the Kaua'i County Council responded by enacting Ordinance 960.[349] By holding that Ordinance 960 is preempted by state law, the court effectively silenced one avenue of relief for Kaua'i's people.[350]

The legal system is set up in such a way that a court's decision may frustrate a lay person in its implementation of legal formalism.[351] In deploying legal formalism, the courts follow the doctrine of stare decisis.[352]

> The doctrine of stare decisis provides that once a court has decided a legal issue, subsequent appeals presenting similar facts should be decided in conformity with earlier decisions. Its purpose is to promote efficiency and provide guidance and consistency in future cases by recognizing that legal questions once settled should not be reexamined every time they are presented.[353]

Stare decisis can be a convenient tool for the court system because it allows a court to apply legal principles already laid down when a case of similar facts presents itself.[354] Stare decisis, however, can also hinder the court from making a decision that it believes to be "right," or will provide justice.[355] Although some courts believe that stare decisis is an "inviolate principle,"[356] courts have "recognized that applying the doctrine of stare

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[348] *See supra* Part 0.

[349] *See* Telephone Interview with Gary Hooser, *supra* note 43.

[350] *See Syngenta*, 842 F.3d at 681.

[351] *See* Sproat, *Wai Through Kānāwai*, *supra* note 57, at 154. "Classic legal formalism is a 'theory of adjudication according to which (1) the law is rationally determinate, and (2) judging is mechanical. It follows, moreover, from (1), that (3) legal reasoning is autonomous, since the class of legal reasons suffices to justify a unique outcome; no recourse to non-legal reasons is demanded or required.'" *Id.* (internal citations omitted). "For a more in-depth discussion of legal formalism, see Daniel Farber, *The Ages of American Formalism*, 90 NW. U. L. REV. 89 (1995)." Sproat, *Wai Through Kānāwai*, *supra* note 57, n.134.

[352] Harry Steinberg, *Stare Decisis Provides Stability to the Legal System, But Applying it May Involve a Love-Hate Relationship*, 73 N.Y. ST. B.J. 39, 39 (2001) (discussing the pros and cons of the stare decisis doctrine).

[353] *Id.* (quoting People v. Bing, 76 N.Y.2d 331, 338-39 (N.Y. 1990)).

[354] *See id.*

[355] *See id. See also* Sproat, *Wai Through Kānāwai*, *supra* note 57, at 157 ("As demonstrated by M'Intosh, the narrow lens of legal formalism deployed established methods (stare decisis or precedent) to embrace regressive rules (for example, the 'doctrine of discovery') in light of selected facts (Natives as uncivilized 'savages') to award the United States 'lawful' title to all Native American lands. The Court's decision fundamentally limited the ability of Indigenous Peoples within the United States to control their own homelands and resources.") (citing Johnson v. M'Intosh, 21 U.S. 543, 571–605 (1823)).

[356] Steinberg, *supra* note 352, at 39.

decisis involves a constant struggle between firmly adhering to the past and recognizing that times change and the law must change with the times."[357] Here, the Ninth Circuit's decision fundamentally limited the ability of underrepresented residents within the United States to control their own homelands and resources.[358]

Courts do not view stare decisis as binding them to a past result.[359] One court, however, has noted that "the mere existence of strong arguments to support a different result is not sufficient, in and of itself, to compel the court to overturn judicial precedent . . . in the end there must be a compelling reason to change the established rule."[360]

In *Syngenta*, the legal issue was whether Ordinance 960, a county law, is preempted by state and federal law.[361] The Plaintiffs claimed that Ordinance 960 is preempted by state and federal laws,[362] forcing the district court to analyze Ordinance 960 in terms of preemption.[363] Hawai'i courts have already decided cases on the issue of state preemption.[364] The court in *Richardson v. City & County. of Honolulu*, ruled that "a municipal ordinance may be preempted pursuant to HRS § 46-1.5(13) if (1) it covers the same subject matter embraced within a comprehensive state statutory scheme disclosing an express or implied intent to be exclusive and uniform throughout the state or (2) conflicts with state law."[365]

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[357] *Id.*

[358] *See* Sproat, *Wai Through Kānāwai*, *supra* note 57, at 157.

[359] *See* Steinberg, *supra* note 352, at 39.

[360] *Id.* (quoting Dufel v. Green, 198 A.D.2d 640, 640 (N.Y. App. Div. 1993)). *See also* Hilton v. South Carolina Pub. Rys. Comm'n, 502 U.S. 197, 202 (1991) ("we will not depart from the doctrine of stare decisis without some compelling justification."); State v. Garcia, 96 Haw. 200, 207 (2001) (ruling that "the prosecution has [not] mustered a 'compelling justification' for departing from the doctrine of stare decisis[]" in a DUI case).

[361] *See* Syngenta Seeds, Inc. v. Cty. of Kaua'i, No. 14-00014 BMK, 2014 WL 4216022, at *1 (D. Haw. Aug. 25, 2014).

[362] *See* First Amended Complaint for Declaratory and Injunctive Relief at 36, 41, Syngenta Seeds, Inc. v. Cty. of Kaua'i, No. 14-00014 BMK, 2014 WL 4216022 (D. Haw. Aug. 25, 2014) (No. CV 14-00014 BMK).

[363] *See Syngenta Seeds*, 2014 WL 4216022 at *3, 9.

[364] *See, e.g.*, In re Application of Anamizu, 481 P.2d 116 (Haw. 1971) (holding that statute regulating contracting business within Hawai'i indicates legislative intention to be exclusive legislation applicable to contractors, thus the city ordinance that purported to regulate the same subject matter was invalid); Richardson v. City & Cty. of Honolulu, 868 P.2d 1193 (Haw. 1994) (ruling that an ordinance providing a mechanism for transfer of fee simple interest of leasehold property from condominium lessors to condominium lessees did not address the same subject matter as statutes).

[365] *Richardson*, 868 P.2d at 1209.

Although *Syngenta* was litigated in federal court, the federal court was bound by the doctrine of stare decisis.[366] "Decisions of state courts on a state statute are binding on the federal courts[.]"[367] Therefore, because the Hawai'i Supreme Court has already ruled on the issue of when a municipal ordinance is preempted by state law,[368] the United States District Court for the District of Hawai'i applied the Hawai'i test for state preemption.[369]

As detailed previously in this section, the doctrine of stare decisis can be a tool of great convenience and efficiency for courts because the court does not have to reexamine legal issues that have already been decided.[370] In this case, however, adhering to precedent allows the seed companies to continue their harmful practices.[371] A flaw of the legal system is that even if a court recognizes that following precedent will harm people's health, it has to apply the law to the facts of the case.[372] The district court expressly stated that "[t]his decision in no way diminishes the health and environmental concerns of the people of Kaua'i."[373] This statement is the court's recognition that it had to rule on the legal issues, and not whether Ordinance 960 addressed valid concerns of Kaua'i's citizens.[374]

Some courts have stated that "the established precedent prevails unless there is a compelling reason to depart from it."[375] Isn't the detrimental health and environmental effects of pesticide use[376] compelling enough for a court to make an exception to precedent?[377] Kaua'i's underrepresented communities have been forced to bear the brunt of the effects of pesticide usage by the seed companies, and the legal system is allowing it to continue.[378]

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366 *See* Steinberg, *supra* note 352, at 41.

367 *Id.*

368 *See, e.g.*, *Richardson*, 868 P.2d 1193; *Anamizu*, 481 P.2d 116.

369 *See* Syngenta Seeds, Inc. v. Cty. of Kaua'i, No. 14-00014 BMK, 2014 WL 4216022, at *5 (D. Haw. Aug. 25, 2014).

370 *See* Steinberg, *supra* note 352, at 39.

371 *See Syngenta*, 2014 WL 4216022, at *1.

372 *See* Steinberg, *supra* note 352, at 39.

373 *Syngenta*, 2014 WL 4216022, at *1.

374 *See id.*

375 Steinberg, *supra* note 352, at 39 (quoting Battle v. State, 257 A.D.2d 745, 746 (N.Y. App. Div. 1999)).

376 *See* THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 35–70 (describing the environmental and health effects of pesticide use on Kaua'i).

377 *See* Steinberg, *supra* note 352, at 39.

378 *See* HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 5, 37-40 (describing reports of sickness caused by pesticide drift in Kaua'i and other areas in Hawai'i).

C. *The Four Values of Restorative Justice Embodied in the Human Rights Principle of Self-Determination*

The results in *Syngenta* may have been different had the Federal District Court for the District of Hawai'i and the Ninth Circuit Court of Appeals considered the case in light of the four values of restorative justice and self-determination.[379] As explained in Part II, *supra*, these four values are: (1) cultural integrity; (2) lands and natural resources; (3) social welfare and development; and (4) self-government.[380]

1. Cultural integrity

Cultural integrity is important because "[c]ulture, place, and gender are deeply intertwined and cannot be separated from each other."[381]

> Hawaiian men in general have lost their place and role in society. Often they linked this to the loss of the old ways—the religious formations, political systems, cultural practices, and relationships to the land that our ancestors knew. With the arrival of colonialism, Christianity, and modernization, all of these configurations of knowledge and power were radically transformed; some say the[y] were lost to the Pō [darkness][382] . . . The right of indigenous peoples to maintain the integrity of their cultures is a simple matter of equality, of being free from historical and ongoing practices that have treated indigenous cultures as inferior to the dominant cultures.[383]

The United Nations supported the rights of indigenous peoples by affirming "in its Declaration on the Rights of Indigenous Peoples, that Natives maintain the right to 'practi[c]e and revitalize their cultural traditions and customs. This includes the right to maintain, protect and develop the past, present and future manifestations of their cultures.'"[384] Therefore,

> [c]ritical legal analysis into Native rights . . . must explicitly analyze history and socio-economic conditions in the context of cultural integrity and whether actions or decisions support and restore cultural integrity as a partial remedy

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[379] *See supra* Part 0.

[380] Sproat, *Wai Through Kānāwai*, *supra* note 57, at 173.

[381] *Id.* at 177 (citing TY P. KĀWIKA TENGAN, NATIVE MEN REMADE: GENDER AND NATION IN CONTEMPORARY HAWAI'I 5 (2008)).

[382] *Id.* at 178 (citing TENGAN, *supra* note 381, at 5–6).

[383] *Id.* (citing S. James Anaya, *International Human Rights and Indigenous Peoples: The Move Toward the Multicultural State*, 21 ARIZ. J. INT'L & COMP. L. 13, 16 (2004) [hereinafter Anaya, *International Human Rights and Indigenous People*]).

[384] *Id.* at 179 (quoting United Nations Declaration on the Rights of Indigenous Peoples, Art. 11, G.A. Res. 61/295, U.N. Doc. A/RES/61/295 (Sept. 13, 2007)).

> for past harms, or perpetuate conditions that continue to undermine cultural survival[385] . . . [T]radition provides the critical constructive material upon which a community rebuilds itself[386] . . . Exploring impacts to Native culture and tradition are, thus, vital to understanding past harms and shaping meaningful redress because, only by delving into the inquiry of how our Ancestors saw the world can we truly understand the significance of our communities as they are currently constituted, appreciating both the strengths and continuities that exist, as well as the pathologies that destroy community.[387]

2. Land and resources

"[Native Hawaiians] believed that the cosmos was a unity of familial relations. [Their] culture depended on a careful relationship with the land, [their] ancestor, who nurtured [them] in body and spirit."[388] In considering this value, courts should "[r]ecogniz[e] and respect[] this sacred relationship between Native [Hawaiians] and other natural and cultural resources, including land[.]"[389] Recognizing and respecting this relationship is necessary because historical processes have afflicted Native Hawaiians "by trampling on their cultural attachment to ancestral lands, disregarding or minimizing their legitimate property interests, and leaving them without adequate means of subsistence."[390]

> Consequently, in light of the acknowledged centrality of lands and resources to indigenous cultures and economies, the requirement to provide meaningful redress for indigenous land claims implies an obligation on the part of states to provide remedies that include for indigenous peoples the option of regaining lands and access to natural resources.[391]
>
> The appropriation of ancestral homelands and resources facilitates Indigenous Peoples' loss of identity and culture.[392] For example, [Native Hawaiians] had

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[385] *Id.* (citing Anaya, *Native Hawaiians and International Human Rights Law*, *supra* note 57, at 346).

[386] *Id.* (quotations omitted) (quoting Wallace Coffey & Rebecca Tsosie, *Rethinking the Tribal Sovereignty Doctrine: Cultural Sovereignty and the Collective Future of Indian Nations*, 12 STAN. L. & POL'Y REV. 191, 199 (2001)).

[387] *Id.* at 179–80 (quotations omitted) (quoting Coffey & Tsosie, *supra* note 386, at 199).

[388] *Id.* at 180 (citing Anaya, *Native Hawaiians and International Human Rights Law*, *supra* note 57, at 346).

[389] *Id.*

[390] *Id.* (quoting Anaya, *Native Hawaiians and International Human Rights Law*, *supra* note 57, at 347).

[391] *Id.* at 180-81 (citing Anaya, *Native Hawaiians and International Human Rights Law*, *supra* note 57, at 348–49).

[392] *Id.* at 180 (citing Lee Swepston, *A New Step in the International Law of Indigenous and Tribal Peoples: ILO Convention No. 169 of 1989*, 15 OKLA. CITY U.L. REV. 677, 705

> an 'intricate land system [that] mirrored and sustained the complexity of Native Hawaiian spiritual and physical relationships.'[393] Lands also provided and continue to offer a means of self-determination because a land base allows Indigenous Peoples to live and develop freely[394] to pursue their cultural and political sovereignty.[395]
>
> A developing contextual framework for Native Peoples therefore must directly analyze history and current socio-economic conditions with the intent of understanding whether a particular action perpetuates the subjugation of ancestral lands, resources, and rights, or attempts to redress historical injustices in a significant way.[396]

3. Social welfare and development

The concepts of social welfare and development are important because they

> are aimed at remedying two distinct but related historical phenomena that result in most indigenous communities living in an economically disadvantaged condition. The first such phenomenon entails the progressive plundering of indigenous peoples' lands and resources over time, processes that have impaired or, as in the case of Native Hawaiians, devastated indigenous economies and subsistence life and left indigenous people among the poorest of the poor. The second corresponds with patterns of discrimination that have tended to exclude members of indigenous communities from enjoyment of the social welfare benefits generally available in the states within which they live.[397]

Prior to western contact in Hawai'i, many Native Hawaiians "did not obtain Western title to their ancestral homelands."[398] Consequently, these Native Hawaiians were forced into towns and cities to live under conditions that some believe would result in their downfall.[399] "Today, [Native Hawaiians] 'comprise the most economically disadvantaged and otherwise

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(1990)).

[393] *Id.* (citing R. Hōkūlei Lindsey, *Native Hawaiians and the Ceded Lands Trust: Applying Self-Determination as an Alternative to the Equal Protection Analysis*, 34 AM. INDIAN L. REV. 223, 243 (2009–2010)).

[394] *Id.* (citing Lindsey, *Native Hawaiians and the Ceded Lands Trust: Applying Self-Determination as an Alternative to the Equal Protection Analysis, supra* note 393, at 238).

[395] *Id.* (citing Angela R. Riley, *Good (Native) Governance*, 107 COLUM. L. REV. 1049, 1063 & n.79 (2007)).

[396] *Id.*

[397] *Id.* at 181–82 (quoting Anaya, *Native Hawaiians and International Human Rights Law*, *supra* note 57, at 352–53).

[398] *Id.* at 182.

[399] *Id.*

ill-ridden sector of the Islands' population . . . Native Hawaiians are overrepresented among the ranks of welfare recipients and prison inmates and are underrepresented among high school and college graduates, professionals, and political officials.'"[400] Because of the "importance of 'health, education, an adequate standard of living,' and other social welfare measures to the continued survival of any group, contextual inquiry into Native [Hawaiian] claims must examine history and socio-economic considerations."[401]

4. Self-governance

The last value, self-governance, is important to Native Peoples

> [b]ecause years and generations of colonization around the world facilitated their non-dominant positions within the states where they live, indigenous communities and their members typically have been denied full and equal participation in the political processes that have sought to govern them. [Moreover, e]ven as indigenous individuals have been granted full rights of citizenship and overtly racially discriminatory policies have diminished, the persistent condition of indigenous groups is typically that of economically disadvantaged numerical minorities. This condition, shared by Native Hawaiians, is one of political vulnerability.[402]

During the colonization of what is now the United States, Indigenous Peoples, including Native Hawaiians, have been systematically dispossessed from their lands and other resources by their colonizers.[403] This "facilitated the loss of political autonomy, leaving many Native populations dependent upon the federal government."[404] Although "[c]ultural and political sovereignty is essential for Indigenous Peoples' self-determination,"[405] the United States "ha[s] refused to recognize indigenous peoples' rights to self-determination—the realization of a separate autonomous political existence that would limit or constrain the ability of the colonizing nations to control the political existence of indigenous peoples."[406]

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[400] *Id.* (quoting Anaya, *Native Hawaiians and International Human Rights Law*, *supra* note 57, at 317).

[401] *Id.* (quoting Anaya, *Native Hawaiians and International Human Rights Law*, *supra* note 57, at 351).

[402] *Id.* at 183 (quoting Anaya, *Native Hawaiians and International Human Rights Law*, *supra* note 57, at 356).

[403] *Id.*

[404] *Id.*

[405] *Id.*

[406] *Id.* at 183–84 (quotations omitted) (quoting Coffey & Tsosie, *supra* note 386, at 198).

In Hawai'i,

> colonialism literally and figuratively dismembered the lāhui (the people) from their traditions, their lands, and ultimately their government . . . [t]he mutilations were not physical only, but also psychological and spiritual. Death came not only through infection and disease, but through racial and legal discourse that crippled the will, confidence, and trust of the [Native Hawaiians] as surely as leprosy and smallpox claimed their limbs and lives.[407]

In light of Hawai'i's history, courts "must consider whether a decision perpetuates historical conditions imposed by colonizers or will attempt to redress the loss of self-governance."[408]

"Together, these four realms—(1) cultural integrity; (2) lands and natural resources; (3) social welfare and development; and (4) self-government—inform the contextual legal analysis of history and current socio-economic conditions necessary to discern the true impacts of actions or decisions on Native Peoples."[409]

5. *The four values of restorative justice and self-determination applied to* Syngenta

Both the Federal District Court for the District of Hawai'i and the Ninth Circuit Court of Appeals failed to consider the four values of restorative justice and self-determination when deciding the *Syngenta* cases.[410] These cases have broader implications than just the preemption issue they were decided upon.[411] For example, as mentioned in Part I, Malia Chun lives on Hawaiian Homelands in Waimea.[412] The Hawaiian Homes Commission Act of 1920 ("HHCA"),[413] "provides for the rehabilitation of the [N]ative Hawaiian people through a government-sponsored homesteading program . . . The intent of the homesteading program is to provide for economic self-sufficiency of [N]ative Hawaiians through the provision of land."[414] Some of HHCA's purposes include:

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[407] *Id.* at 185 (quoting JONATHAN KAY KAMAKAWIWO'OLE OSORIO, DISMEMBERING LĀHUI: A HISTORY OF THE HAWAIIAN NATION TO 1887, at 3 (2002)).

[408] *Id.*

[409] *Id.*

[410] *See* Syngenta Seeds, Inc. v. Cty. of Kaua'i, 842 F.3d 669, 674 (9th Cir. 2016); Syngenta Seeds, Inc. v. Cty. of Kaua'i, No. 14-00014 BMK, 2014 WL 4216022 (D. Haw. Aug. 25, 2014); Sproat, *Wai Through Kānāwai*, *supra* note 57.

[411] *See Syngenta*, 842 F.3d at 674; *Syngenta*, 2014 WL 4216022.

[412] *See* Telephone Interview with Malia Chun, *supra* note 4.

[413] Hawaiian Homes Commission Act of 1920, ch. 42, 42 Stat. 108 (1920) [hereinafter HHCA].

[414] *Hawaiian Homes Commission Act*, DEP'T OF HAWAIIAN HOME LANDS,

> [e]stablishing a permanent land base for the benefit and use of native Hawaiians[;] [p]roviding adequate amounts of water and supporting infrastructure[;] [and p]roviding financial support and technical assistance to native Hawaiian beneficiaries of this Act so that by pursuing strategies to enhance economic self-sufficiency and promote community-based development, the traditions, culture and quality of life of native Hawaiians shall be forever self-sustaining.[415]

Had the *Syngenta* courts considered past and present socio-economic conditions of Native Hawaiians, they might have determined that the seed companies' practices are frustrating some of the purposes of HHCA.[416] For example, pesticide drift from the seed companies' test fields may be contaminating Hawaiian Homelands and water and causing health problems.[417] The courts could have viewed these issues in light of Hawai'i's history of colonization and the associated harms to Native Hawaiians.[418] The courts could have considered whether the seed companies jeopardize a clean, healthy environment for the Native Hawaiians, whose culture and traditions are deeply intertwined with nature. The *Syngenta* courts did not, however, examine the four indigenous values for contextual legal analysis.[419]

Even if the *Syngenta* courts had contextualized their decisions, there may not have been enough "concrete" facts to influence their decisions.[420] For example, although there may be a higher incidence of birth defects in west Kaua'i, studies cannot pinpoint the cause to pesticides.[421] Too many other factors, like lifestyle choices, may impact the likelihood of birth defects and other ailments.[422] Perhaps once more studies are conducted on the effects of pesticide exposure will a contextual legal analysis influence courts to rule in favor of stricter GMO and pesticide regulations.

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http://dhhl.hawaii.gov/hhc/laws-and-rules/ (last visited Feb. 16, 2018). *See also* HAW. CONST. art. XII, § 1.

[415] HHCA § 101 (1990) (alteration in original).

[416] *See* Sproat, *Wai Through Kānāwai*, *supra* note 57, at 186 (explaining how the overthrow of the Indigenous Hawaiian monarchy resulted in harms still experienced by the Native Hawaiian people, which influenced the district court judge's decision).

[417] *See* Telephone Interview with Gary Hooser, *supra* note 43.

[418] *See* Sproat, *Wai Through Kānāwai*, *supra* note 57, at 186.

[419] *See* Syngenta Seeds, Inc. v. Cty. of Kaua'i, 842 F.3d 669, 674 (9th Cir. 2016); Syngenta Seeds, Inc. v. Cty. of Kaua'i, No. 14-00014 BMK, 2014 WL 4216022 (D. Haw. Aug. 25, 2014).

[420] *See* Telephone Interview with Gary Hooser, *supra* note 43 (describing how the seed companies deny that their pesticide use causes environmental or health problems).

[421] *See id. See also* THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 8 (noting that an association is not proof of causation).

[422] *See* Telephone Interview with Gary Hooser, *supra* note 43.

VI. SOLUTIONS

A. Short-Term Solutions

1. State legislature bills addressing pesticides and GMOs

Although the Ninth Circuit Court of Appeals decision in *Syngenta* upheld the Federal District Court for the District of Hawai'i's decision that Ordinance 960 is preempted by state law,[423] GMO and pesticide usage in Hawai'i may face greater regulation. Future bills proposed by the Hawai'i State Legislature have the potential to alleviate some of the harms caused by the biotechnology industry by creating stricter regulations and garnering more support from the public.[424]

2. Courts should apply the four indigenous values for contextual legal analysis to environmental cases

As explained in Part V.B above, the courts are bound by the doctrine of stare decisis, and "the established precedent prevails unless there is a compelling reason to depart from it."[425] Courts, however, may find a "compelling reason"[426] to depart from precedent after examining the context surrounding the case at hand, using the four indigenous values for contextual legal analysis.[427] For example, "[i]n *Doe v. Kamehameha Schools/Bernice Pauahi Bishop Estate*, the federal courts wrestled with whether a post-civil war reconstruction statute required a private school, created to educate [Native Hawaiian] children, to change its admission policy and admit non-natives."[428] In *Doe*, the private school, Kamehameha Schools, "is a charitable testamentary trust established by the last direct descendent of King Kamehameha I, Princess Bernice Pauahi Bishop, who left her property in trust for a school dedicated to the education and

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[423] *See Syngenta*, 842 F.3d at 669.

[424] *See* Telephone Interview with Gary Hooser, *supra* note 43.

[425] Steinberg, *supra* note 352, at 39 (quoting Battle v. State, 257 A.D.2d 745, 746 (N.Y. App. Div. 1999)).

[426] *Id.*

[427] *See* Sproat, *Wai Through Kānāwai*, *supra* note 57, at 186 (citing Doe v. Kamehameha Sch., 295 F. Supp. 2d 1141 (D. Haw. 2003)) (describing the District Court for the District of Hawai'i's decision in Doe, where Judge Kay's interpretation of the legal language pertaining to the issue was influenced by current socio-economic conditions).

[428] *Id.* at 185 (footnote omitted) (citing Doe v. Kamehameha Sch., 295 F. Supp. 2d 1141 (D. Haw. 2003)) *aff'd in part*, *rev'd in part*, 416 F.3d 1025 (9th Cir. 2005), *reh'g en banc granted sub nom.*, Doe *ex rel.* Doe v. Kamehameha, 441 F.3d 1029 (9th Cir. 2006), *rev'd en banc sub nom.*, Doe v. Kamehameha, 470 F.3d 827 (9th Cir. 2006)).

upbringing of Native Hawaiians."[429] The Plaintiff, who was not Native Hawaiian, "challenged the school's admissions policy on the grounds that he was denied entry because of his race, violating a civil rights law that bans racial discrimination when making or enforcing contracts."[430]

The precedent that Judge Alan Kay of the District Court for the District of Hawai'i faced was a United States Supreme Court case, *Runyon v. McCrary*, "that interpreted the civil rights law and held that private schools cannot employ race to exclude applicants."[431]

> The one exception to the civil rights law's racial differentiation prohibition rested on a judicial finding that the underlying policy addressed a "legitimate remedial purpose."[432] "Precedent" interpreting that language, however, focused on affirmative action in private businesses, which was inapplicable in *Doe*[.][433]

> Judge Kay focused on the same legal language of the exception but deeply contextualized the interpretation. He found that history linked to current socio-economic conditions rendered the school's admissions policy both "remedial" and "legitimate," and he granted summary judgment in favor of Kamehameha.[434]

> Judge Kay acknowledged the "exceptionally unique circumstances involving a private school, which receives no federal funding, with a remedial race-conscious admissions plan to rectify socioeconomic and educational disadvantages resulting from the influx of western civilization."[435] He determined that Hawai'i's history of colonization, the United States' role in the overthrow of the Indigenous Hawaiian monarchy, and the harms resulting in daily consequences for Hawai'i's Indigenous People—including educational deprivation, loss of lands, homelessness, poor health, and high incarceration rates—provided "a legitimate justification for Kamehameha Schools' . . . admissions policy and education program, which serves a legitimate remedial purpose."[436]

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[429] *Id.* (internal quotations omitted).

[430] *Id.* at 185–86 (citing *Doe*, 470 F.3d at 834).

[431] *Id.* at 186 (explaining the holding in Runyon v. McCrary, 427 U.S. 160 (1976)).

[432] *Id.* (citing *Doe*, 295 F. Supp. 2d at 1146).

[433] *Id.* (citing *Doe*, 295 F. Supp. 2d at 1164–65).

[434] *Id.* (citing *Doe*, 295 F. Supp. 2d at 1165–72, 1174–75).

[435] *Id.* (citing *Doe*, 295 F. Supp. 2d at 1147).

[436] *Id.* at 186-87 (citing *Doe*, 295 F. Supp. 2d at 1147). On appeal, however, the Ninth Circuit Court reversed the district court's holding. Doe v. Kamehameha, 416 F.3d 1025, 1048 (9th Cir. 2005).

Although the Ninth Circuit Court reversed the lower court's decision on appeal, *Doe* is an example of how using a contextual legal analysis may influence a court's decision.[437]

> Critical legal analysis reveals that in controversial cases like *Doe*, even if decision-makers feel constrained by legal rules, the language of rules alone will not dictate the end result. Instead, the language of most substantive rules . . . is malleable enough to offer decision-makers a range of options and an ultimate choice influenced by their own political and economic philosophies.[438]

Other courts, when deciding cases related to regulating pesticides and GMOs, should follow the example set by Judge Kay in *Doe*.[439] Specifically, courts should use a "contextual legal analysis of history and current socio-economic conditions"—by examining the four realms: (1) cultural integrity; (2) lands and natural resources; (3) social welfare and development; and (4) self-government—"to discern the true impacts of actions or decisions on Native Peoples."[440]

B. Long-Term Solutions: Moving Hawai'i's Agriculture Back to its Roots

In the long run, the proposed solutions above are probably not sufficient by themselves to relieve the problems caused by the biotechnology industry.[441] One long-term solution to the issue of GMO field trials and its associated pesticide use is the re-adoption of the formal ahupua'a system.[442] The goal of Waipā Foundation, a proponent of this solution, is to weave Native Hawaiian traditions and agriculture practices with modern

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[437] *See Doe*, 416 F.3d 1025, 1048 (9th Cir. 2005); *Doe*, 295 F. Supp. 2d at 1141.

> The Ninth Circuit panel turned a blind eye to Hawai'i's history. In considering whether Kamehameha had "legitimate nondiscriminatory reasons" for its admissions policy, the Ninth Circuit panel ignored Judge Kay's historical analysis and restricted its inquiry to affirmative action in employment. Through this a-contextual, formalist analysis, the panel concluded that the school's policy was not "remedial" but rather "preferential" and not "legitimate" but impermissibly "racial."

Sproat, *Wai Through Kānāwai*, *supra* note 57, at 187 (internal citations omitted).

[438] Sproat, *Wai Through Kānāwai*, *supra* note 57, at 187.

[439] *See Doe*, 295 F. Supp. 2d at 1141.

[440] Sproat, *Wai Through Kānāwai*, *supra* note 57, at 185.

[441] *See* 'ĀINA: THAT WHICH FEEDS US (Living Ancestors 2015).

[442] *See* J. NOELANI GOODYEAR KA'OPUA, THE SEEDS WE PLANTED (2013) (focusing on land centered literacies); Lilikāla Kame'elehiwa, *Kaulana Oahu me he 'Āina Momona*, *in* FOOD AND POWER IN HAWAI'I: VISIONS OF FOOD DEMOCRACY (Christine R. Yano & Robert Ji-Song Ku eds., 2016); Telephone Interview with Stacy Sproat-Beck, *supra* note 276.

technology to create a sustainable and abundant food source for Hawai'i.[443] Specifically, Waipā Foundation is focused on establishing the ahupua'a of Waipā "as an example of healthy interdependent relationships between people and earth's natural resources."[444] By applying Waipā's model of sustainability to larger percentages of agricultural land throughout the state, Hawai'i may reduce its pesticide use and dependence on foreign food sources.[445]

Underlying the ahupua'a system are the Hawaiian traditional conservation and management values.[446] These values are "based on the respect of nature; regulation of land regime and access to resources; an indigenous knowledge base; search for balance and harmony with nature, and taking care of the land."[447] The ahupua'a system, part of the ancient Hawaiians' political and agricultural subdivision of the land, is a complex system of resource management.[448] The moku (district) was divided to ensure that the maka'āinana (commoners) had access to all of its resources.[449] The division was in accordance to three major ecological zones:

> 1) firewood, timber, birds, and plants of the forest in the "mauka (mountain) zone"; 2) planting of potatoes or dry taro field cultivation in the upland, and planting of irrigated taro lo'i (pond fields) served by 'auwai (ditches) in the alluvial lowland areas of the kahawai (streams) and tree crop plantation such as breadfruit trees in the "agricultural zone"; and 3) fishing and shellfish, limu (seaweed) and salt gathering on the reef, including fish management in the many types of fishponds in the "coastal zone."[450]

Native Hawaiians prospered under this ahupua'a system.[451] Before western contact, the Native Hawaiian population was approximately one million.[452] Today, Hawai'i's 1.4 million people[453] rely on about ninety

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[443] Telephone Interview with Stacy Sproat-Beck, *supra* note 276.

[444] WAIPĀ FOUNDATION, http://waipafoundation.org/ (last visited Feb. 20, 2017).

[445] *See* 'ĀINA: THAT WHICH FEEDS US (Living Ancestors 2015) (referencing INTERNATIONAL ASSESSMENT OF AGRICULTURAL KNOWLEDGE, SCIENCE AND TECHNOLOGY FOR DEVELOPMENT, AGRICULTURE AT A CROSSROADS: GLOBAL REPORT (Beverly D. McIntyre et al. ed., 2009)) (explaining that the best way to feed the world is the same as the Native Hawaiian way of agriculture; this type of agriculture produces an abundance of food and does not pollute the environment).

[446] *See* Luciano Minerbi, *Indigenous Management Models and Protection of the Ahupua'a*, Vol. 39, SOC. PROCESS IN HAWAI'I, 208, 210 (1999).

[447] *Id.*

[448] *Id.* at 212.

[449] *Id.*

[450] *Id.*

[451] *See* 'ĀINA: THAT WHICH FEEDS US (Living Ancestors 2015).

[452] *Id.*

percent imported foods.[454] The Native Hawaiians' ability to support such a large population without relying on outside resources is a testament to the productivity of the ahupua'a system.[455] Moreover, the ahupua'a system was successful without the use of chemicals or genetic engineering.[456] Utilizing the ahupua'a system today can provide Hawai'i with a sustainable source of food and resources, while preserving a balance with nature for all future generations.[457]

VII. CONCLUSION

The District Court for the District of Hawai'i and Ninth Circuit Court of Appeals' decisions in *Syngenta* invoked two different responses from Kaua'i residents: despair or a renewed sense of vigor in battling the seed industry.[458] Malia Chun reacted both ways.[459] She is tired of telling her story to those interested in the conflict between the seed industry and Hawai'i's citizens.[460] Yet, Malia still feels a duty to do something about it.[461]

Malia focuses her energy on educating the youth about the issues over the seed industry because the next generation is going to inherit all this "crap."[462] She runs food sovereignty camps to teach children how people can live harmoniously with the environment.[463] She wants kids to question where their food and water comes from, and to take responsibility in caring for those resources, embodying the principle of mālāma 'āina.[464]

Moreover, Malia participated in a Swiss conference, as part of an international panel, discussing Syngenta and its practices around the world.[465] Switzerland banned some of the RUPs used by Syngenta, however, those RUPs are still being used here![466] Malia even agreed to

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[453] *QuickFacts Hawaii*, UNITED STATES CENSUS BUREAU, https://www.census.gov/quickfacts/table/PST045216/15 (last visited Apr. 17, 2017).

[454] 'ĀINA: THAT WHICH FEEDS US (Living Ancestors 2015).

[455] *See id.*

[456] *See id.*

[457] Telephone Interview with Stacy Sproat-Beck, *supra* note 276; *see id.*

[458] Telephone Interview with Malia Chun, *supra* note 4; *see generally* Syngenta Seeds, Inc. v. Cty. of Kauai, 842 F.3d 669, 681 (9th Cir. 2016); Syngenta Seeds, Inc. v. Cty. of Kaua'i, No. 14-00014 BMK, 2014 WL 4216022, at *1 (D. Haw. Aug. 25, 2014).

[459] Telephone Interview with Malia Chun, *supra* note 4.

[460] *See id.*

[461] *See id.*

[462] *See id.*

[463] *See id.*

[464] *See id.*

[465] *See id.*

[466] *See id.* Switzerland has banned RUPs containing atrazine and paraquat, however,

have her children take part in a French report investigating childhood exposures to pesticides.[467] The results of the tests conducted on Malia's children, which would concern any parent, confirmed the presence of thirty-six different pesticides, including eight RUPs.[468]

Malia wishes that pesticide testing is more available to families to ignite more communities to pay attention to the issues surrounding the seed companies' use of pesticides.[469] Many people in her community, however, do not want to speak out against the seed companies.[470] Malia's rural plantation community boasts the highest concentration of pure Native Hawaiians.[471] Many are employed by the seed industry and grateful to have a job.[472] Therefore, some people do not want to risk their livelihood by speaking out against their employer.[473]

Waimea is a prime example of environmental racism.[474] The seed companies subject the Waimea's community, comprised of a majority of underrepresented individuals,[475] to disproportionate environmental hazards.[476] The Kaua'i County Council has responded to community opposition to the seed industry's practices by enacting Ordinance 960, but was unsuccessful in imposing stricter regulations.[477] Had the Federal District Court for the District of Hawai'i and the Ninth Circuit Court of Appeals considered the four values of restorative justice embodied in the human rights principle of self-determination—(1) cultural integrity; (2)

Syngenta continues to spray these pesticides in Hawai'i. Will Caron, *Kauai delegation heads to Syngenta's home country*, THE HAWAII INDEPENDENT (Apr. 21, 2015, 2:16 PM), http://hawaiiindependent.net/story/kauai-delegation-heads-to-syngentas-home-country. Furthermore, Switzerland has banned the cultivation of GMOs. *Id.*

[467] Telephone Interview with Malia Chun, *supra* note 4.

[468] *See id.* Scientists took hair samples from Malia's children to test for pesticides. *Id.* Although the tests revealed thirty-six different pesticides, kids in California tested positive for double the amount of pesticides. *Id.* These tests, however, detect the presence of pesticides only, and not the quantity. *Id.*

[469] *See id.*

[470] *See id.*

[471] *See id.* Many of the pure Native Hawaiians in Waimea are from Ni'ihau, seeking employment. *Id.*

[472] *See id.*

[473] *See id.*

[474] *See* Yamamoto & Lyman, *supra* note 47, at 315-16.

[475] *See QuickFacts Kauai County, Hawaii*, *supra* note 276. Whites made up only eight percent of the population as of 2010. *QuickFacts Kauai County, Hawaii*, *supra* note 276.

[476] *See* Telephone Interview with Gary Hooser, *supra* note 43 (explaining that there are no gated communities near GMO test fields); Telephone Interview with Malia Chun, *supra* note 4.

[477] *See* Syngenta Seeds, Inc. v. Cty. of Kauai, 842 F.3d 669, 670 (9th Cir. 2016); Syngenta Seeds, Inc. v. Cty. of Kauai, No. 14-00014 BMK, 2014 WL 4216022, at *1 (D. Haw. Aug. 25, 2014).

lands and natural resources; (3) social welfare and development; and (4) self-government—the result may have been different.[478] Those in positions of power within Hawai'i must recognize the blight of Hawai'i's underrepresented populations, like Waimea's,[479] and take action to achieve environmental justice.

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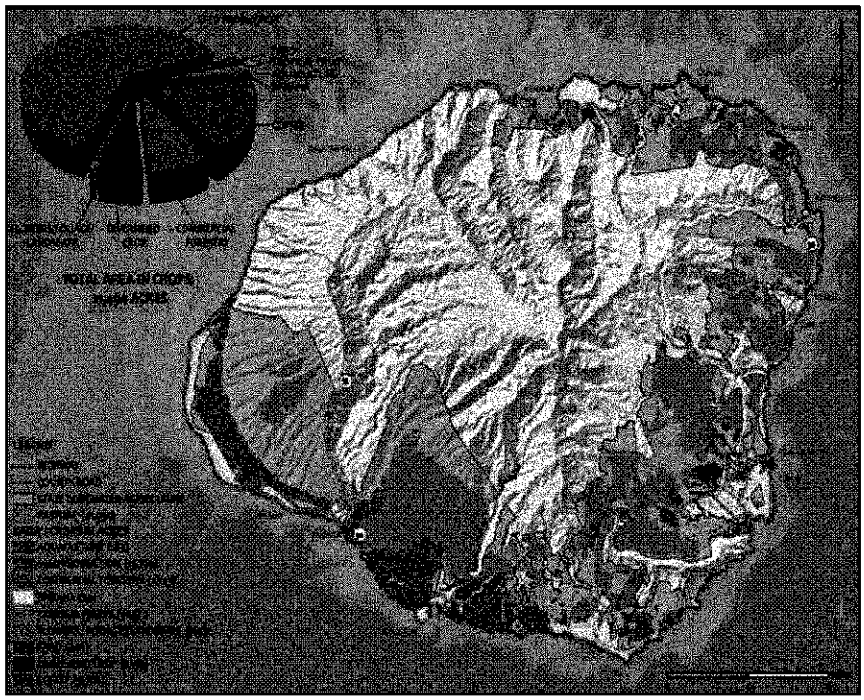
[478] *See Syngenta*, 2014 WL 4216022, at *1; Sproat, *Wai Through Kānāwai*, *supra* note 57, at 173 (citing Anaya, *Native Hawaiians and International Human Rights Law*, *supra* note 57, at 342)*; see also Syngenta Seeds Inc.*, 842 F.3d at 669 (9th Cir. 2016).

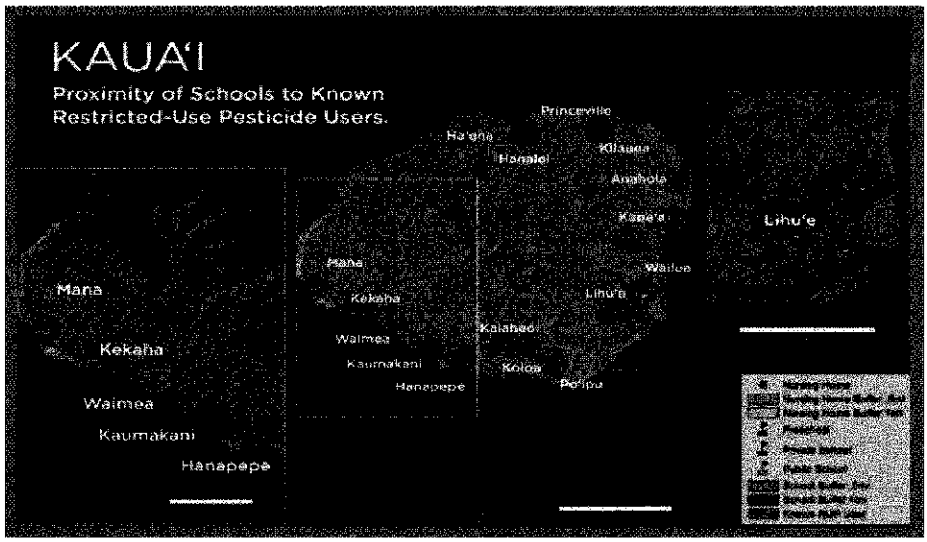
[479] *See* HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 3-6; THE JOINT FACT FINDING STUDY GROUP, *supra* note 119, at 12-13; Gibson, *supra* note 29, at 232–33 (describing lack of pesticide disclosure issues surrounding field trials in Hawai'i); Telephone Interview with Gary Hooser, *supra* note 43; Telephone Interview with Malia Chun, *supra* note 4.

EXHIBIT 1



MELROSE ET AL., *supra* note 102, at 49.

EXHIBIT 2



HAW. CTR. FOR FOOD SAFETY, *supra* note 16, at 20.

Resolving the Legal Status of Dokdo/Takeshima: Why Joint Referral to the International Court of Justice is a Realistic Approach

Rio H. Kwon*

I. INTRODUCTION

"The old nationalist tensions are rising over some disputed Asian islands."[1]

This statement aptly characterizes the current dispute between South Korea[2] and Japan over "some disputed Asian islands."[3] These islands, which have a land area of just 187,554 m^2,[4] are known as Dokdo in South

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* J.D. Candidate, William S. Richardson School of Law, University of Hawai'i at Mānoa, class of 2018.

[1] Sheila A. Smith, *Why Japan, South Korea, and China are so Riled Up Over a Few Tiny Islands*, ATLANTIC (Aug. 16, 2012), https://www.theatlantic.com/international/archive/2012/08/why-japan-south-korea-and-china-are-so-riled-up-over-a-few-tiny-islands/261224/.

[2] For purposes of clarity, this paper will use the names "South Korea" and "North Korea" accordingly. In addition, "Korea" and the names of various States that preceded the modern Korean nation will be used accordingly.

[3] Smith, *supra* note 1.

[4] Jon M. Van Dyke, *Legal Issues Related to Sovereignty over Dokdo and its Maritime Boundary*, 38 OCEAN DEV. & INT'L L. 157, 157 (2007) [hereinafter Van Dyke, *Legal Issues Related to Dokdo*].

Korea, Takeshima in Japan, and the Liancourt Rocks in the West.[5] To some observers, these islands may appear to be otherwise insignificant land masses in the middle of the ocean. Dokdo/Takeshima is located in the Sea of Japan/East Sea,[6] approximately 88 kilometers from South Korea's Ulleungdo and approximately 158 kilometers from Japan's Oki Islands.[7] It is currently controlled and administered by South Korea.[8] The only permanent residents of Dokdo/Takeshima are Kim Seong-do and his wife.[9]

What, then, makes the legal status of Dokdo/Takeshima, an otherwise largely unoccupied and seemingly insignificant cluster of islands, such a complex and highly contentious dispute[10] that has become a lightning rod for controversy? For South Korea, the controversy surrounding the legal status of Dokdo/Takeshima has become a rallying cry for nationalism. Indeed, for many South Korean people, Korean ownership of Dokdo/Takeshima is a deeply personal issue that has been engrained within their psyche.[11]

For some young South Koreans, defending Dokdo/Takeshima from Japan has become a sacred duty.[12] This is evidenced by the number of

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[5] The islands in dispute will hereinafter be called Dokdo/Takeshima.

[6] South Korea disputes the nomenclature for this body of water. South Korea asserts that this body of water should be called the "East Sea" while Japan maintains that it should remain as the "Sea of Japan." Press Release, Sixth UN Conference on the Standardization of Geographical Names, International Cooperation and Education in the Study of Place Names Discussed by Conference on Geographical Names; Both Koreas Call for "Readjustment" of Name "Sea of Japan," U.N. Press Release NR/188 (Aug. 28, 1992). For purposes of clarity, this body of water will hereinafter be called "Sea of Japan/East Sea."

[7] Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4.

[8] Lee Byung-joe, *"Title to Dokdo" in International Law*, 2 KOREAN J. OF COMP. L. 85, 93 (1974) (explaining South Korea's "positive administration over Dokdo). South Korea argues that title to Dokdo/Takeshima was first acquired through military conquest in 512. South Korea's acquisition of title to Dokdo/Takeshima will be explained *infra* in Section III.C.

[9] *Facts about Dokdo: Residents & Visitors*, REPUBLIC OF KOR. MINISTRY OF FOREIGN AFF., http://dokdo.mofa.go.kr/eng/dokdo/introduce/residence.jsp (last visited Apr. 2, 2018). In addition to Kim Seong-do and his wife, 35 coast guards, two lighthouse managers, and two staff members of Ulleung-gun's Dokdo Management Office reside on the islands on a temporary basis. *Id.*

[10] Lee, *supra* note 8, at 85 (describing the contentious nature of this dispute because of Korean nationalism); *see also infra*, notes 11-25 and accompanying text.

[11] Dong-Joon Park & Danielle Chubb, *Why Dokdo Matters to Korea*, DIPLOMAT, http://thediplomat.com/2011/08/why-dokdo-matters-to-korea/ (last visited May 3, 2018) (explaining that many Korean people view conceding to Japanese claims to Dokdo/Takeshima as legitimizing Japanese colonial rule of Korea).

[12] Choe Sang-hun, *Fight Over Rocky Islets Opens Old Wounds Between South Korea and Japan,* N.Y. TIMES (Oct. 4, 2012), http://www.nytimes.com/2012/10/05/world/asia/south-korea-and-japan-fight-over-rocky-

South Korean citizens who voluntarily undergo hardship to protect South Korean ownership of the islands.[13] For example, in April 2012, 150 police recruits competed for seven open slots on Dokdo/Takeshima, where forty-five South Korean officers are routinely stationed.[14] Similarly, after the South Korean soccer team's victory against Japan in the bronze medal match of the 2012 Summer Olympics, South Korean midfielder Park Jong-woo displayed a sign that read "Dokdo is our Territory."[15] Although he was ultimately awarded the bronze medal, he was required to skip the medal ceremony and was placed under review by the International Olympic Committee for making this political statement.[16]

South Korean celebrities have also entered the controversy. For example, Kim Jang-hoon, a South Korean rock singer, led a dozen amateur swimmers on a swim to Dokdo/Takeshima in commemoration of the 67th anniversary of Korea's independence from Japanese rule.[17] Additionally, South Korean actor Song Il-gook also led a group of swimmers to Dokdo/Takeshima to demonstrate South Korea's sovereignty over Dokdo/Takeshima.[18] Their decisions to enter into the controversy surrounding the legal status of Dokdo/Takeshima could alienate their Japanese fans and thus entail significant financial risk.

Most importantly, and controversially, former South Korean President Lee Myung-bak visited Dokdo/Takeshima in 2012 to demonstrate South Korea's control over the islands.[19] While there, President Lee declared, "Dokdo is truly our territory, and it's worth defending with our lives."[20] President Lee's visit was criticized by the South Korean opposition party as

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islets.html (last visited May 3, 2018).

[13] *Id.*

[14] *Id.* (quoting Kwon Se-hyon, a 19-year old police recruit, "I didn't want to miss this very special opportunity for a Korean man").

[15] Andrew Das, *South Korean Denied Medal Over Politics*, N.Y. TIMES (Aug. 11, 2012), http://www.nytimes.com/2012/08/12/sports/olympics/south-korean-soccer-player-park-jong-soo-denied-medal-over-politics.html.

[16] Karolos Grohmann, *South Korean Park to get London Games Soccer Medal*, REUTERS (Feb. 12, 2013), http://www.reuters.com/article/us-olympics-southkorea-park-idUSBRE91B0Y520130212.

[17] Hilary Whiteman, *South Korean Singer Swims into Island Dispute with Japan*, CNN (Aug. 15, 2012), http://www.cnn.com/2012/08/14/world/asia/south-korea-dokdo-takeshima-islands/.

[18] Mark Schreiber, *Will the Takeshima Dispute Break the Korean Wave?*, JAPAN TIMES (Sept. 2, 2012), https://www.japantimes.co.jp/news/2012/09/02/national/media-national/will-the-takeshima-dispute-break-the-korean-wave/#.Wpn7aq3My1s.

[19] Choe Sang-hun, *South Korean's Visit to Disputed Islets Angers Japan*, N.Y. TIMES (Aug. 10, 2012), http://www.nytimes.com/2012/08/11/world/asia/south-koreans-visit-to-disputed-islets-angers-japan.html [hereinafter *South Korean's Visit Angers Japan*].

[20] *Id.*

a "publicity stunt" and by the Japanese government as an attempt to "tap South Koreans' deep-seated nationalistic sentiments against Japan for gains in domestic politics."[21]

Although the nationalism displayed by the Japanese people is less fervent than that displayed by the South Korean people, both the Japanese people and the Japanese government have also demonstrated nationalist postures regarding the legal status of Dokdo/Takeshima. For example, in 2005, the Shimane Prefectural Assembly passed a resolution declaring February 22 as Takeshima Day in commemoration of the 100th anniversary of Japan's control of Takeshima,[22] even though Dokdo/Takeshima is currently administered by the South Korean government.[23] The Japanese Ministry of Education has also issued instructions for teachers and publishers to instruct students that Dokdo/Takeshima is Japanese territory.[24] Additionally, in response to President Lee's visit to Dokdo/Takeshima, the Japanese government recalled its ambassador to South Korea.[25]

Indeed, this ongoing dispute can been described as "illustrat[ing] the intractable difficulties that seemingly insignificant territorial disputes can pose due to their historical and political context."[26] The official position of both governments only furthers the current impasse over this issue. The South Korean government maintains that "no territorial dispute exists regarding Dokdo, and therefore Dokdo is not a matter to be dealt with through diplomatic negotiations or judicial settlement."[27] As a result, South Korea has declined three requests from Japan to submit their dispute to the International Court of Justice ("ICJ"), with the most recent rejection occurring in 2012.[28] In contrast, the Japanese government asserts:

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[21] *Id.* Although heavily criticized, President Lee's visit to Dokdo/Takeshima increased his low domestic approval ratings by six percentage points. Nam In-Soo, *President Gets Small Ratings Pop After Islets Visit*, WALL STREET J. (Aug. 23, 2012), https://blogs.wsj.com/korearealtime/2012/08/23/president-gets-small-ratings-pop-after-islets-visit/.

[22] Choe Sang-hun, *Desolate Dots in the Sea Stir Deep Emotions as South Korea Resists a Japanese Claim*, N.Y. TIMES (Aug. 30, 2008), http://www.nytimes.com/2008/08/31/world/asia/31islands.html [hereinafter *Desolate Dots in the Sea Stir Deep Emotions*].

[23] *Facts About Dokdo: Location and Features*, REPUBLIC OF KOR. MINISTRY OF FOREIGN AFF., http://dokdo.mofa.go.kr/eng/introduce/location.jsp (last visited Apr. 29, 2018).

[24] *Desolate Dots in the Sea Stir Deep Emotions*, *supra* note 22.

[25] *South Korean's Visit Angers Japan*, *supra* note 19.

[26] Garret Bowman, *Why Now Is the Time to Resolve the Dokdo/Takeshima Dispute*, 46 CASE W. RES. J. OF INT'L L. 433, 438 (2013).

[27] *The Korean Government's Basic Position on Dokdo*, REPUBLIC OF KOR. MINISTRY OF FOREIGN AFF., http://dokdo.mofa.go.kr/eng/dokdo/government_position.jsp (last visited Apr. 2, 2018).

[28] *South Korea Rejects Japan's ICJ Proposal*, JAPAN TIMES (Aug. 31, 2012), http://www.japantimes.co.jp/news/2012/08/31/national/south-korea-rejects-japans-icj-

> The ROK's occupation of Takeshima by force has no legal basis whatsoever, and Japan has strongly protested against each of these acts, demanding Korea's withdrawal. Any measures the ROK takes regarding Takeshima based on this type of illegal occupation have neither legal justification nor any legal effect as grounds for its sovereignty claim.[29]

Contrary to the South Korean government's position, however, a dispute does exist that necessitates resolution. Although the parties have normalized relations in 1965 through a bilateral treaty,[30] the inability of South Korea and Japan to reach a resolution on this issue has adversely affected and undermined relations between the two countries.

This paper argues that it is unlikely that South Korea and Japan will reach a negotiated outcome. Therefore, the most realistic approach to resolving the legal status of Dokdo/Takeshima is by joint submission to the ICJ. As an independent arbiter with past successes in resolving territorial disputes, the ICJ is uniquely qualified to effectively resolve this dispute. While some might argue that South Korea would be taking a significant risk in taking this dispute to the ICJ, this paper demonstrates that the ICJ would likely rule in favor of South Korea.

Section II explains the procedures and structures of the ICJ and discusses the ICJ's past successes in resolving other controversial territorial disputes. Section III provides background on the dispute over the legal status of Dokdo/Takeshima, explaining the history of relations between South Korea and Japan and their respective claims to Dokdo/Takeshima. Section IV argues that, despite the associated risks, South Korea should submit a joint referral to the ICJ to settle this dispute as it is likely the ICJ would rule in favor of South Korea.

II. THE ROLE OF THE ICJ IN RESOLVING TERRITORIAL DISPUTES

A. Introduction to the ICJ

The ICJ is the successor to the League of Nations Permanent Court of International Justice ("PCIJ").[31] It is the "principal judicial organ of the

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proposal/#.WI3ClRiZO1s.

[29] *An Outline on the Japanese Position on Sovereignty over Takeshima and the Illegal Occupation by the Republic of Korea*, MINISTRY OF FOREIGN AFF. OF JAPAN, http://www.mofa.go.jp/region/asia-paci/takeshima/position.html (last visited Feb. 6, 2017).

[30] Treaty on Basic Relations Between Japan and the Republic of Korea, Japan–S. Kor., June 22, 1965, 1966 U.N.T.S. 44 [hereinafter Treaty on Basic Relations].

[31] LORI FISLER DAMROSCH & SEAN D. MURPHY, INTERNATIONAL LAW: CASES AND MATERIALS 553 (6th ed. 1993).

United Nations" ("UN"), and therefore "has a special role to play in the application and development of international law."[32]

The ICJ is governed by the Statute of the International Court of Justice ("ICJ Statute"), which established the organization, competence, and procedures of the ICJ.[33] Article 93 of the United Nations Charter ("UN Charter") provides that "[a]ll Members of the United Nations are *ipso facto* parties to the Statute of the International Court of Justice."[34] However, "[o]nly states may be parties in cases before the Court."[35]

The Court is composed of fifteen members, "no two of whom may be nationals of the same state."[36] The ICJ Statute states that the ICJ is comprised of "a body of independent judges, elected regardless of their nationality from among persons of high moral character, who possess the qualifications required in their respective countries for appointment to the highest judicial offices. . . ."[37]

The two principal functions of the ICJ are to issue advisory opinions and adjudicate contentious cases.[38] The ICJ is authorized to issue advisory opinions regarding any legal question as requested from the General Assembly or the Security Council.[39] Other UN organs and specialized agencies may be authorized to request an advisory opinion from the ICJ regarding legal questions arising within the scope of their activities.[40]

ICJ decisions have "no binding force except between the parties and in respect of that particular case."[41] Article 94(1) of the UN Charter requires parties to "comply with the decision of the International Court of Justice in any case to which it is a party."[42] Furthermore, Article 94(2) of the UN Charter states:

> If any party to a case fails to perform the obligations incumbent upon it under a judgment rendered by the Court, the other party may have recourse to the Security Council, which may, if it deems necessary, make recommendations or decide upon measures to be taken to give effect to the judgment.[43]

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[32] *Id.*

[33] Statute of the International Court of Justice, June 26, 1945, T.S. No. 993, 59 Stat. 1055 [hereinafter ICJ Statute].

[34] U.N. Charter art. 93, ¶ 1.

[35] ICJ Statute, *supra* note 33, at art. 34, ¶ 1.

[36] *Id.* art. 3(1)

[37] *Id.* art. 2

[38] DAMROSCH & MURPHY, *supra* note 31, at 554.

[39] U.N. Charter art. 96, ¶ 1.

[40] *Id.*

[41] ICJ Statute, *supra* note 33, at art. 59.

[42] U.N. Charter art. 94, ¶ 1.

[43] *Id.* art. 94, ¶ 2.

Therefore, because there are ways of enforcing ICJ decisions, it would be difficult for a losing party to refuse to implement the ICJ's decision without contravening the ICJ Statute and article 94(1) of the UN Charter.

However, the principle of *stare decisis* is not applicable to ICJ decisions.[44] While ICJ decisions are not inherent sources of international law, they do provide a source of international law that can be applied as a "subsidiary means for the determination of rules of law."[45] Therefore, prior ICJ decisions pertaining to the resolution of issues of territorial sovereignty provide persuasive authority upon which the ICJ can base its future decisions.

While disputes over territorial sovereignty have occasionally escalated into armed conflict,[46] "settlement of territorial disputes on the basis of law can help the parties toward peaceful solutions."[47] When determining whether a State has acquired sovereignty over a territory, the problem of "intertemporal law" is relevant.[48] International law and its interpretation "cannot remain unaffected by the subsequent development of law, through the Charter of the United Nations and by way of customary law."[49] Therefore, international law interprets and applies laws according to the framework prevailing at the time.[50]

The "most controversial and damaging" criticism of the ICJ is that its judges vote in favor of their home nation in contentious cases because they are unable to overcome their own national biases.[51] For example, in its

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[44] *See* ICJ Statute, *supra* note 33, at art. 38 (Prior ICJ decisions are not listed under Article 38 as a source of international law).

[45] *Id.* art. 38, ¶ 1(d).

[46] For example, disagreement between Argentina and the United Kingdom over the Falkland Islands, South Georgia and Sandwich Islands led to a 10-week long war. *See* DAMROSCH & MURPHY, *supra* note 31, at 360.

[47] DAMROSCH & MURPHY, *supra* note 31, at 360.

[48] *See id.* at 373-74 (The problem of intertemporal law "wrestles with how to handle a legal concept that has changed in meaning over time. Assume that two parties agree, in year one, that rule X shall apply between them. Assume further that in year fifty, rule X has mutated in the practice of states to have different meaning, referred to as rule Y. Is the relevant rule governing the two parties X or Y? Should the concept be interpreted as understood at the time it was adopted or at the time of its application?").

[49] Legal Consequences for States of the Continued Presence of South Africa in Namibia (South West Africa) notwithstanding Security Council Resolution 276 (1970), Advisory Opinion, 1971 I.C.J. Reports 16, 31 (June 21).

[50] *Id.* ("[A]n international instrument has to be interpreted and applied within the framework of the entire legal system prevailing at the time of the interpretation.")

[51] Gleider I. Hernandez, *Impartiality and Bias at the International Court of Justice*, 1 CAMBRIDGE J. INT'L & COMP. L. 183, 200 (2012). There are a plethora of studies that attempt to evaluate and measure the extent of judicial bias and explain the impact of such bias on decisions. *See generally* Eric A. Posner & Miguel F.P. de Figueiredo, *Is the International*

dispute with the Netherlands over the legal status of the island of Palmas, the United States chose arbitration over fears that the PCIJ, based at the Hague and presided over by a Dutch national, would be biased against the United States.[52]

Any concerns regarding the independence and impartiality of the ICJ would be relevant for the determination of the legal status of Dokdo/Takeshima because Judge Hisashi Owada, a Japanese national, currently serves on the ICJ.[53] There are no South Korean nationals serving on the ICJ at this time.[54] This is not to imply that Judge Owada is unable to independently and fairly adjudicate this dispute; rather, this discussion is intended to address Korean concerns that may arise from their lack of representation on the ICJ, as well as to clarify the procedural safeguards that exist to ensure a fair proceeding.

Article 2 of the ICJ Statute calls for the ICJ to be "composed of a body of independent judges, elected regardless of their nationality[.]"[55] Additionally, every judge is required to "make a solemn declaration in open court that he will exercise his powers impartially and conscientiously."[56] However, the most important procedural safeguard is ICJ Statute Article 31(2),[57] which is intended to prevent, or at least offset, the possibility of bias and ensure a fair and impartial ICJ proceeding. Article 31(2) provides, "[i]f the Court includes upon the Bench a judge of the nationality of one of the parties, any other party may choose a person to sit as judge."[58]

Article 31(2) allows the appointment of *ad hoc* judges to ensure that States do not have an unfair advantage during deliberations before the ICJ and that "the perspective of the State [is] well-represented during the Court's deliberations."[59] If the Dokdo/Takeshima dispute is brought before the ICJ, South Korea would be entitled under Article 31(2) to appoint a

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Court of Justice Biased?, 34 J. LEGAL STUDIES 599, 602 (2005) (citing multiple studies evaluating the extent of judicial bias and explaining the impact of bias on ICJ decisions).

[52] H. Harry L. Roque, Jr., *Palmas Arbitration Revisited*, 77 PHIL. L. J. 437, 444 (2003).

[53] *Current Members*, INT'L COURT OF JUSTICE, http://www.icj-cij.org/en/current-members (last visited Apr. 3, 2018).

[54] *Id.*

[55] ICJ Statute, *supra* note 33, at art. 2.

[56] *Id.* art. 20

[57] *See infra* notes 59-60 and accompanying text.

[58] *Id.* art. 31, ¶ 2.

[59] *See* DAMROSCH & MURPHY, *supra* note 31, at 556. A study has indicated that ICJ judges vote for their home state about "90 percent of the time" and in favor of countries that match the economic, political, and cultural attributes of their own countries. Posner & de Figueiredo, *supra* note 51, at 615 tbl. 1, 615–624. The *ad hoc* judge can offset the vote of a judge who follows this trend. *See* DAMROSCH & MURPHY, *supra* note 31, at 603.

South Korean national as an *ad hoc* judge because South Korea does not currently have representation on the court.

B. Jurisdiction of the ICJ for Contentious Cases

The jurisdiction of the ICJ for contentious cases depends on the consent of the parties.[60] Although state parties to the UN Charter are *ipso facto* parties to the ICJ Statute,[61] being a party to the ICJ Statute alone is not enough for the ICJ to have jurisdiction to hear a case. ICJ jurisdiction for contentious cases is governed by Article 36 of the ICJ Statute, which states:

> (1) The jurisdiction of the Court comprises all cases which the parties refer to it and all matters specially provided for in the Charter of the United Nations or in treaties and conventions in force
>
> (2) The states parties to the present Statute may at any time declare that they recognize as compulsory *ipso facto* and without special agreement, in relation to any other state accepting the same obligation, the jurisdiction of the Court in all legal disputes concerning:
>
> (a) the interpretation of a treaty;
>
> (b) any question of international law;
>
> (c) the existence of any fact which, if established, would constitute a breach of an international obligation;
>
> (d) the nature or extent of the reparation to be made for the breach of an international obligation. . . .[62]

The ICJ Statute, therefore, provides three sources of jurisdiction to hear a contentious case: (1) by special agreement of the parties (*compromis*),[63] (2) by a compromissory clause in a treaty,[64] and (3) by unilateral declaration.[65] For the ICJ to have jurisdiction to determine the legal status of Dokdo/Takeshima, a special agreement is necessary because there is no governing treaty with a compromissory clause and because South Korea has not filed a unilateral declaration.

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[60] DAMROSCH & MURPHY, *supra* note 31, at 559.

[61] U.N. Charter art. 93, ¶ 1.

[62] ICJ Statute, *supra* note 33, at art. 36, ¶ 2.

[63] *Id.* art. 36, ¶ 1 ("The jurisdiction of the Court comprises all cases which the parties refer to it").

[64] *Id.* art. 36, ¶ 1 ("The jurisdiction of the Court comprises . . . all matters specially provided for in the Charter of the United Nations or in treaties and conventions in force").

[65] *Id.* art. 36, ¶ 2 (The states parties to the present Statute may at any time declare that they recognize as compulsory *ipso facto* and without special agreement . . . the jurisdiction of the Court in all legal disputes . . . ").

A special agreement is a negotiated agreement in which "the parties specifically define the terms of the dispute and the questions they would like the Court to resolve."[66] When the parties bring a case to the ICJ by special agreement, the Court is limited to the facts and questions as provided for in the special agreement.[67]

A compromissory clause is a treaty provision that requires a State to resolve disagreements or conflicts through the ICJ.[68] For South Korea and Japan, the Treaty on Basic Relations normalized relations between the parties, but it makes no mention of the legal status of Dokdo/Takeshima and, most importantly, does not contain a compromissory clause that mandates ICJ adjudication for any disputes between the two nations.[69] While Article IV of the Treaty on Basic Relations does require the parties to "cooperate in conformity with the principles of the Charter of the [UN]," it is difficult to interpret Article IV as a compromissory clause because it does not specifically state that ICJ adjudication is required.[70]

A unilateral declaration is a formal statement deposited with the Secretary-General of the United Nations in which a State recognizes the ICJ's jurisdiction as compulsory.[71] Jurisdiction conferred by Article 36(2) is based on reciprocity because "only states that have filed a declaration under Article 36(2) can sue other states that have also made such a declaration."[72] As of 2018, seventy-three States, including Japan, have deposited such declarations.[73] As South Korea has not filed such a unilateral declaration, or otherwise consented to jurisdiction, the ICJ would not have jurisdiction per Article 36(2).

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[66] DAMROSCH & MURPHY, *supra* note 31, at 559.

[67] *Id.* at 560.

[68] *See id.* at 566.

[69] *See* Treaty on Basic Relations, *supra* note 30.

[70] *Compare* Treaty on Basic Relations, *supra* note 30, art. IV(b) (stating generally that the parties "will be guided by the principle of the Charter of the United Nations in their mutual relations") *with* Optional Protocol on the Vienna Convention on Consular Relations Concerning the Compulsory Settlement of Disputes art. 1, Apr. 24, 1963, 23 Stat. 3227, 500 U.N.T.S. 95 (stating explicitly that "disputes arising out of the interpretation or application of the Convention shall lie within the compulsory jurisdiction of the ICJ and may accordingly be brought before the Court by an application made by any party to the dispute being a Party to the present Protocol").

[71] ICJ Statute, *supra* note 33, ¶ 2–4.

[72] DAMROSCH & MURPHY, *supra* note 31, at 570, n.1.

[73] *Declarations Recognizing the Jurisdiction of the Court as Compulsory*, INT'L COURT OF JUSTICE, http://www.icj-cij.org/en/declarations (last visited Apr. 28, 2018).

C. The ICJ has Resolved Several Controversial Territorial Disputes

The ICJ's successes in resolving controversial and complicated territorial disputes strengthen its credibility as an appropriate and effective venue for resolving the dispute between South Korea and Japan over the legal status of Dokdo/Takeshima. The effectiveness and credibility of the ICJ is further bolstered considering that "no state has been directly defiant" of an ICJ judgment since 1987.[74] Although there are some notable exceptions,[75] "ICJ decisions, (especially final judgments) [are] generally accorded a large amount of deference."[76] Judgments resulting from cases that are brought by both parties by special agreement "received a high degree of compliance," while judgments consisting of unwilling participants were less likely to be implemented.[77] This section discusses two examples that demonstrate the ICJ's successful resolution of territorial disputes: the resolution of the legal status of (1) the Aouzou Strip; and (2) Pedra Branca/Pulau Batu Puteh, Middle Rocks, and South Ledge.

The ICJ's successes on the African continent have strengthened its credibility as an effective arbiter of territorial disputes because territorial disputes between African nations are often based on either retaining or attaining control over natural resources.[78] As a result, African nations are often willing to go to war or engage in armed conflict to protect their control over natural resources that are in dispute.[79]

The ICJ's role in resolving the territorial dispute between Libya and Chad over the Aouzou Strip is noteworthy because it is an example of a

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[74] Colter Paulson, *Compliance with Final Judgments of the International Court of Justice Since 1987*, 98 AM. J. INT'L L. 434, 436–37 (2004).

[75] *See generally* Military and Paramilitary Activities in and Against Nicaragua (Nicar. V. U.S.), Judgment, 1986 I.C.J. Rep. 14 (June 27) (resulting in the withdrawal of the United States from the ICJ's compulsory jurisdiction).

[76] Paulson, *supra* note 75, at 435 (citing Jonathan I. Charney, *Disputes Implicating the Institutional Credibility of the Court: Problems of Non-Appearance, Non-Participation, and Non-Performance*, *in* THE INTERNATIONAL COURT OF JUSTICE AT A CROSSROADS 288, 296, 300 (Lori Fisler Damrosch ed., 1987)).

[77] *Id.* (citing Jonathan I. Charney, *Disputes Implicating the Institutional Credibility of the Court: Problems of Non-Appearance, Non-Participation, and Non-Performance*, *in* THE INTERNATIONAL COURT OF JUSTICE AT A CROSSROADS 288, 297 (Lori Fisler Damrosch ed., 1987)).

[78] *See* Charles Riziki Majinge, *Emergence of New States in Africa and Territorial Dispute Resolution: The Role of the International Court of Justice*, 13 MELB. J. INT'L L. 462, 495 (2012).

[79] *Id.* (citing J. Ndumbe Anyu, *The International Court of Justice and Border-Conflict Resolution in Africa: The Bakassi Peninsula Conflict*, 18 MEDITERRANEAN Q. 40, 53–54 (2007)) ("without the Court's intervention, these disputes had the potential to cause instabilities or even full-fledged war").

peaceful resolution of a territorial dispute made possible by the ICJ.[80] Initial disagreement over the legal status of the Aouzou Strip, an area of land approximately 530,000 km^2 located in the northern frontier of Chad and the southern frontier of Libya, escalated to an armed conflict when Libya invaded the Aouzou Strip and forcibly annexed and occupied the disputed territory in 1973.[81] This dispute arose as a result of Libya's repudiation of a treaty entered into in 1955 with France, which was, at the time, the colonial government in control of Chad.[82] In 1988, both nations agreed to peaceful resolution and submitted their dispute to the ICJ.[83]

Ultimately, the ICJ recognized the Aouzou Strip as under the jurisdiction of Chad, thereby ending a territorial dispute, an armed conflict, and a nearly twenty-year long occupation of disputed territory.[84] It is also important to note that the Libyan government, despite being the armed aggressor and the unsuccessful party, agreed to implement the ICJ's judgment.[85] Libya's decision to comply with the ICJ's judgment strengthened its ties with other North African nations and improved its international relations.[86]

The resolution of the Aouzou Strip dispute shows that "the system worked as intended" because the ICJ was able to obtain Libya's compliance and secure peace.[87] Additionally, the ICJ's role in bringing peace to the African continent is further demonstrated by the "extent to which African countries have been willing to comply with the judgments rendered by the Court."[88] African nations have complied with the ICJ's judgments even though compliance meant making "painful choices . . . such as the relocation of population or loss of sovereignty over resource-rich territories."[89] Furthermore, there is a likelihood that African nations preferred seeking adjudication through the ICJ because "the choice of the Court as a neutral arbiter eliminates the likelihood of bitter confrontation between governments and their peoples, especially local communities, who

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[80] *Id.* at 486-87.

[81] *Id.*

[82] *Id.* (explaining that the 1955 Treaty recognized and established the borders of Chad and Libya, as understood by France and Libya).

[83] *See id.*

[84] Territorial Dispute (Libyan Arab Jamahiriya/Chad), Judgment, 1994 I.C.J. Rep. 6 at 35, ¶ 72-74 (Feb. 3). *See also* Majinge, *supra* note 79, at 487.

[85] Permanent Representative of the Libyan Arab Jamahiriya to the U.N., Letter dated Apr. 6, 1994 from the Permanent Rep. of the Libyan Arab Jamahiriya to the United Nations addressed to the Secretary-General, U.N. Doc. S/1994/402 (Apr. 13, 1994).

[86] Paulson, *supra* note 75, at 441.

[87] *Id.* at 443.

[88] Majinge, *supra* note 79, at 496.

[89] *Id.*

may be unwilling to accept the outcome of the dispute."[90] The impartiality of the ICJ was an important appeal for African nations because there is a possibility that certain sections of the nation's society, motivated by "nationalistic rhetoric or fears over the loss of their livelihood"[91] will resist a negotiated bilateral settlement.

While the ICJ has been successful in resolving territorial disputes on the African continent, compliance with the ICJ's decision has not been immediate. In fact, "[d]isputes involving land boundaries and a history of armed conflict received the lowest levels of compliance."[92] However, there has been no instance when a nation unsuccessfully argued before the ICJ and thereafter disregarded an ICJ judgment.[93] Nations are well advised to follow Libya's example because refusal to implement an ICJ decision will likely subject that nation to scrutiny and pressure from the international community and the United Nations Security Council.

Additionnally, the ICJ's continuing role in resolving the territorial dispute between Singapore and Malaysia over the legal status of Pedra Branca/Pulau Batu Puteh, Middle Rocks, and South Ledge shows that some nations hold the ICJ in high regard. On July 24, 2003, Singapore and Malaysia requested the ICJ to determine the legal status of Pedra Branca/Pulau Batu Puteh, Middle Rocks, and South Ledge.[94] Finding that both the United Kingdom[95] and Singapore exercised effective control over Pedra Branca/Pulau Batu Puteh, the ICJ concluded that Pedra Branca/Pulau Batu Puteh was under the sovereignty of Singapore.[96] The ICJ came to this conclusion based on evidence that the United Kingdom's colonial government constructed and operated a lighthouse, investigated accidents around the island, and regulated visits to the island, while the Singaporean government installed naval communication equipment and engaged in land reclamation projects.[97] In contrast, the ICJ found that the Malaysian government and its predecessor states "took no action at all on Pedra Branca/Pulau Batu Puteh from June 1850 for the whole of the following

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[90] *Id.*

[91] *Id.*

[92] Paulson, *supra* note 75, at 457.

[93] *Id.*

[94] Sovereignty Over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge (Malay./Sing.), Judgment, 2008 I.C.J. Rep. 12, at 20, ¶ 8 (May 23).

[95] *Id.* at 30, ¶ 40. ("Singapore's title to Pedra Branca is based upon the taking of lawful possession of the island by the British authorities in Singapore during the period 1847 to 1851.").

[96] *Id.* at 96, ¶ 277.

[97] *Id.* at 95, ¶ 274 (analyzing the effect of United Kingdom actions on Pedra Branca/Pulau Batu Puteh before title passed to Singapore).

century or more."[98] Regarding Middle Rocks, the ICJ held that sovereignty belonged to Malaysia because Singapore was unable to disprove that Malaysia, as a successor State to the Sultan of Johor, inherited title to this island.[99] The ICJ did not decide the sovereign control over South Ledge because this determination required the ICJ to draw a line of delimitation, which the parties did not request the ICJ to do in the special agreement.[100]

After the ICJ rendered its decision in 2008, Malaysia applied for a revision of the judgment pursuant to ICJ Statute Article 61(1)[101] because it discovered three documents from the National Archives of the United Kingdom that show that "Singapore officials at the highest levels did not consider that Singapore had acquired sovereignty over Pedra Branca/Pulau Batu Puteh. . . ."[102] The documents included: "internal correspondence of the Singapore colonial government in 1958 . . . concerning Singapore's territorial waters, an incident report filed by a British naval officer which acknowledges that the waters around Pedra Branca/Pulau Batu Puteh are Johor's, and an annotated map of naval operations which indicate that Singapore's territorial boundary does not encompass Pedra Branca/Pulau Batu Puteh."[103]

The Malaysian government's decision to apply for a revision instead of seeking arbitration or taking unilateral measures shows its high regard for the ICJ. It demonstrates a willingness to continue to utilize the ICJ for peaceful resolution of disputes even in the event of an unfavorable initial judgment. Additionally, the Singaporean government's continued participation in this case also suggests its high regard for the ICJ because it

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[98] *Id.* at 96, ¶ 275.

[99] *Id.* at 99, ¶ 290.

[100] *Id.* at 101, ¶¶ 298–99. The parties subsequently established a Joint Technical Committee to delimit the marine boundary and to determine the ownership of South Ledge. The Committee has not yet made a decision. *See* Press Release, Malaysia Requests an Interpretation of the Judgment of 23 May 2008 in the Case Concerning Sovereignty over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge (Malaysia/Singapore), I.C.J. No. 2017/28 (June 30, 2017), available at http://www.icj-cij.org/files/case-related/170/170-20170630-PRE-01-00-EN.pdf; A.G. Hamid, Current Legal Developments: International Court of Justice, 26 INT'L J. MARINE & COASTAL L. 335, 341 (2011).

[101] ICJ Statute, *supra* note 33, at art. 61, ¶ 1 ("An application for revision of a judgment may be made only when it is based upon the discovery of some fact of such a nature as to be a decisive factor, which fact was, when the judgment was given, unknown to the Court and also to the party claiming revision, always provided that such ignorance was not due to negligence.").

[102] Application for Revision of Judgment of 23 May 2008 in *Sovereignty Over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge* (Malay./Sing.), Application, 2, ¶ 2 (Feb. 2, 2017), http://www.icj-cij.org/files/case-related/167/19362.pdf.

[103] *Id.*

is willing to continue to participate even if doing so risks a new judgment disfavoring Singaporean sovereignty over the islands.

While it is important to understand the past successes of the ICJ, it is also important to recall that the ICJ is not bound by *stare decisis*. Therefore, the ICJ's past successes in resolving territorial disputes do not guarantee that the ICJ will successfully resolve the dispute between South Korea and Japan regarding the legal status of Dokdo/Takeshima. Nevertheless, the past successes of the ICJ demonstrate its ability to consider the merits of a controversial and complicated case and render a judgment that advances peace and stability.

III. BACKGROUND TO THE DISPUTE OVER DOKDO/TAKESHIMA

A. Korea Under Japanese Colonial Rule

A brief history of Japan's colonization of Korea is necessary to show that the Korean government was unable to protest Japanese claims to Dokdo/Takeshima or effectively administer the islands as part of Korean territory.

Japan's colonial rule of Korea officially began in 1910 and ended with Japan's defeat in World War II. However, Japanese influence in Korea began much earlier than 1910 with the signing of the Japan–Korea Treaty of 1876, which enabled the Japanese government to "penetrate Korea's closed doors" to facilitate "Japan's economic expansion into Korea."[104]

Korea signed similar treaties that opened itself for trade with the United States, Germany, Great Britain, Italy, Russia, and France.[105] During this period of foreign economic expansion into Korea, the Chinese, Japanese, and Russian military presence in Korea increased drastically as well.[106]

In 1894, the Donghak Peasant Revolution culminated into a well-organized uprising.[107] The Korean government was unable to suppress the uprising and requested military assistance from China, which consequently deployed troops to the Korean peninsula.[108] In response to Chinese intervention, the Japanese government sent their own large military force "under the pretext of protecting its citizens in Korea."[109] When Japanese

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[104] Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 170.

[105] *Id.* at 171.

[106] *Id.* Various countries dispatched troops to prevent the dominance of one country over Korea and to protect their own interests.

[107] *See id.* at 172.

[108] *Id.*

[109] *Id.*

troops arrived in Korea, the Chinese military had already suppressed the uprising, but the Japanese government proposed that both nations remain in Korea to implement reform of Korea's government.[110] When China rejected the proposal, Japan launched a preemptive attack on Chinese troops, thus beginning the First Sino-Japanese War.[111] Japan's eventual victory in the First Sino-Japanese War resulted in the Treaty of Shimonoseki.[112] Under this treaty, China "recognize[d] definitively the full and complete independence and autonomy of [K]orea" [113] and "cede[d] to Japan in perpetuity and full sovereignty . . . the southern portion of Feng-Tien province, the Island of Formosa, and the Pescadores Group."[114] Korea's "independence and autonomy," however, was illusory because the treaty allowed Japan to establish an even stronger presence in Korea.[115] With China no longer recognizing Korea as its tributary state, Japan "began exerting the increasing control that led to formal annexation in 1910."[116]

However, Japan's efforts to more firmly exert control over South Korea were complicated by Russia's increasing military presence in Northeast Asia, specifically in Manchuria.[117] As Japan was increasing its control over Korea, Russia was establishing its presence in Manchuria through its leases of Dalian and Port Arthur and the expansion of the Trans-Siberian railroad into Manchuria.[118] Japan considered the Russian presence in Manchuria as a possible threat to its interests in Korea and proposed that Russia recognize Japan's interests in Korea.[119] Russia objected to this treaty and instead proposed that it would recognize Japan's exclusive interests in Korea as long as Japan agreed not to use Korea as a military base or encroach upon Russian interests in Manchuria, and if Japan agreed to establish territory north of the 39th parallel as a neutral zone in which both States could establish a military presence.[120] Japan rejected Russia's proposal and attacked Russia, beginning the Russo-Japanese War.[121] During the Russo-Japanese War, Japan "sent troops into Seoul and compelled Korea to

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[110] *Id.*
[111] *Id.*
[112] *Id.*
[113] The Treaty of Shimonoseki, Japan-China, art. 1, Apr. 17, 1895, 1895 Consol. T.S. 217, http://opil.ouplaw.com/view/10.1093/law:oht/law-oht-181-CTS-217.regGroup.1/181_CTS_217_eng.pdf.
[114] *Id.* at art. 2.
[115] *See* Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 172.
[116] *Id.*
[117] *Id.*
[118] *Id.*
[119] *Id.* at 173.
[120] *Id.*
[121] *See id.*

sign"[122] a protocol agreement that essentially deprived Korea of "its ability to act independently on the world stage" because it curtailed the role of the Korean government to dictate its own affairs while simultaneously increasing Japan's presence and influence in Korea.[123] The Treaty of Portsmouth, signed in 1905,[124] officially ended the Russo-Japanese War[125] and Japan's "political, economic and military supremacy in Korea was internationally recognized."[126] Subsequent treaties signed in 1907 established a Resident-General that governed Korea on behalf of the Emperor of Japan, effectively ending Korean sovereignty even before it was formally annexed in 1910.[127]

The liberation of Korea in 1945 allowed for the reestablishment of an independent Korean nation in 1948. While resumption of Korean independence allowed South Korea to regain control and administration over Dokdo/Takeshima, it did not end Japanese claims to the islands.

B. The Law of Territorial Sovereignty

The general rule of international law is that a State acquires sovereignty over a particular territory if that State has title to the territory.[128] A State can acquire title to territory by: (1) discovery or occupation of *terra nullius* (unoccupied territory); (2) prescription, which is based on longstanding effective control and peaceful possession; (3) military conquest; (4) State succession; or (5) treaty.[129] In the following subsections, this paper will analyze the methods of territorial acquisition that are most relevant to this dispute: (1) military conquest; (2) prescription, and (3) discovery or occupation of *terra nullius*.

C. South Korea's Claims to Dokdo/Takeshima

South Korea argues that written documentation dating back to 512 shows title to Dokdo/Takeshima was initially acquired through military conquest when the Kingdom of Silla[130] conquered Usan-guk, an independent island

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[122] *Id.*

[123] *Id.*

[124] The Treaty of Portsmouth, Japan-Russ., Sept. 5, 1905, 199 Consol. T.S. 144.

[125] Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 176.

[126] *Id.*

[127] *Id.* at 179.

[128] DAMROSCH & MURPHY, *supra* note 31, at 360.

[129] *Id.* at 360–77.

[130] The Kingdom of Silla was an ancient Korean nation that existed for nearly 900 years. In 935, the Kingdom of Silla merged with Goryeo to form a unified Korean nation called Goryeo. Around the 13th century, a General of the Goryeo military overthrew the Goryeo

nation that administered the islands of Ulleungdo and Dokdo/Takeshima.[131] Acquisition of title to territory through military conquest raises the problem of intertemporal law because international law now forbids the acquisition of territory by military conquest or the use of force.[132] However, South Korea would not now be deprived of its title to Dokdo/Takeshima because title was acquired and settled prior to the prohibition on the use of force for territorial acquisition.[133]

Furthermore, South Korea argues that, since 1952, it has exercised continuous effective control over Dokdo/Takeshima because it has held "legislative, administrative and judicial jurisdiction over Dokdo."[134]

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government and established the Kingdom of Joseon. Joseon eventually renamed itself as the Empire of Korea in 1897 as part of its effort to modernize. The Empire of Japan forcibly annexed the Empire of Korea in 1910 and established its colonial government from 1910–1945. During the Japanese colonial period, Korean independence fighters established in Shanghai the Provisional Government of the Republic of Korea as the Korean government-in-exile. Following Korea's independence, the United States stationed troops south of the 38th parallel while the Soviet Union stationed troops north of the 38th parallel. Elections, supervised by the UN, were held in the south that resulted in the establishment of a democratic Republic of Korea. However, elections were not held in the north due to opposition from the Soviet Union, and instead a communist Democratic People's Republic of Korea was established in the north. The Korean War resulted in the now-existing partition of the Korean peninsula along the 38th parallel. *Three Kingdoms and Other States*, REPUBLIC OF KOR. MINISTRY OF FOREIGN AFF., http://www.korea.net/AboutKorea/History/Three-Kingdoms-other-States (last visited Apr. 12, 2018); *Unified Silla and Balhae*, REPUBLIC OF KOR. MINISTRY OF FOREIGN AFF., http://www.korea.net/AboutKorea/History/Unified-Silla-Balhae (last visited Apr. 12, 2018); *Joseon*, REPUBLIC OF KOR. MINISTRY OF FOREIGN AFF., http://www.korea.net/AboutKorea/History/Joseon (last visited Apr. 12, 2018); *The Fall of Joseon: Imperial Japan's Annexation of Korea*, REPUBLIC OF KOR. MINISTRY OF FOREIGN AFF., http://www.korea.net/AboutKorea/History/The-Fall-Joseon (last visited Apr. 12, 2018); *Independence Movement*, REPUBLIC OF KOR. MINISTRY OF FOREIGN AFF., http://www.korea.net/AboutKorea/History/Independence-Movement (last visited Apr. 12, 2018); *Transition to Democracy and Transformation into an Economic Powerhouse*, http://www.korea.net/AboutKorea/History/Transition-Democracy-Transformation-Economic-Powerhouse (last visited Apr. 12, 2018).

[131] Yong-Ha Shin, *A Historical Study of Korea's Title to Tokdo*, 28 KOREA OBSERVER 333, 333 (1997) (citing Pu-Sik Kim, compiler of the "Samguk Sagi").

[132] Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations, G.A. Res. 2625 (XXV) (Oct. 24, 1970) (proclaiming that the territory of a State shall not be the object of acquisition by another State resulting from the threat or use of force.").

[133] *See* DAMROSCH & MURPHY, *supra* note 31, at 362 (explaining that determining whether title to territory is legitimate requires an application of the law in place at the time of the military conquest).

[134] *Q&A on Dokdo*, REPUBLIC OF KOR. MINISTRY OF FOREIGN AFF., http://dokdo.mofa.go.kr/eng/dokdo/faq.jsp (last visited Apr. 5, 2017). *See also* Phil Haas, *Status and Sovereignty of the Liancourt Rocks: The Dispute Between Japan and Korea*, 15

Currently, the South Korean government administers Dokdo/Takeshima under Ulleung County, North Gyeongsang Province[135] and has stationed police and military personnel on the islands.[136] The South Korean government has also undertaken infrastructure improvements on the island by constructing a lighthouse, a flagpole bearing the South Korean flag, a desalination plant, and other government facilities.[137] As of September 2013, numerous South Koreans reside on the islands: Kim Seong-do and his wife, a couple who have lived on the island for forty years; 35 coast guards; two lighthouse managers; and two staff members of Ulleung-gun's Dokdo Management Office.[138] Since tourist visits to the islands were allowed by the South Korean government in 2005, approximately 2 million tourists have visited the islands by traveling by ferry from South Korea.[139]

South Korea also points to its historic and longstanding "positive management of the island"[140] as evidence of acts "exercising a function of a state with the right of sovereignty in the area."[141] In 1454, the Korean government recorded Ulleungdo and Dokdo/Takeshima as under the administration of Uljin County, Gangwon Province.[142] Between 1417 and 1881, the Korean government enforced the "vacant island policy" that prohibited settlement of islands surrounding the Korean peninsula."[143] During the implementation of the "vacant island policy," the government regularly sent inspectors to the islands in order to enforce the prohibition.[144] The islands remained uninhabited for most of the late 1800s.[145]

In 1693, South Korean and Japanese fishermen clashed over fishing rights off the shores of Dokdo/Takeshima.[146] The dispute was brought before the Japanese government, which concluded that "Ullungdo was

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GONZ. J. OF INT'L L. 2, 22 (2011).

[135] *Facts About Dokdo: Location and Features*, *supra* note 23.

[136] *Q&A on Dokdo*, *supra* note 135.

[137] *Id. See also* Haas, *supra* note 135, at 26.

[138] *Facts About Dokdo: Residents & Visitors*, *supra* note 9 and accompanying text.

[139] *Id.*

[140] Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 175 (citation omitted).

[141] Haas, *supra* note 135, at 22.

[142] *Why Dokdo is Korean Territory*, REPUBLIC OF KOR. MINISTRY OF FOREIGN AFF., http://dokdo.mofa.go.kr/eng/dokdo/reason.jsp (last visited Apr. 5, 2018).

[143] Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 165-66 (citing Hoon Lee, *Dispute Over Territorial Ownership of Tokdo in the Late Chosŏn Period*, 28 KOREA OBSERVER 389, 397 (1997)) (explaining that the purposes of the vacant island policy were to prevent occupants of the island from evading taxes and military service and to provide protection from Japanese pirates).

[144] *Id.* at 166.

[145] *See* Haas, *supra* note 135.

[146] Lee, *supra* note 144, at 400-01; Haas, *supra* note 135; Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 166.

Korean territory" and recognized that Dokdo/Takeshima was an "appendage linked to Ullungdo and subject to the same regime."[147] Consequentially, the Japanese government ordered a ban on travel to Dokdo/Takeshima.[148] Therefore, when the Edo Shogunate promulgated a nationwide travel ban that prohibited any Japanese citizen from traveling abroad, Dokdo/Takeshima was not included as a permissible destination for travel because the islands were recognized as outside Japan's territory.[149] When this travel ban was lifted in the late 1800s, Korea protested the encroachment of Japanese fishermen in the ocean near Dokdo/Takeshima, to which Japan responded by agreeing to prohibit Japanese fishermen from entering the area around the island.[150]

In 1900, the Empire of Korea promulgated Imperial Ordinance No. 41, which established that Ulleungdo County was to have jurisdiction over Dokdo/Takeshima.[151] Imperial Ordinance No. 41 was the last act of the Korean government's administration of Dokdo/Takeshima, as Japanese advisors became significantly involved in the Korean government, thereby preventing the Korean government from "protecting its territorial interests effectively."[152] When Japan formally annexed Korea from 1910 to 1946,[153] Korea lost its sovereign right to effectively administer the islands and its other territories.[154]

In addition to historic documentation, South Korea also points to several maps that indicate Dokdo/Takeshima as South Korean territory.[155] Official maps published by the Japanese government as early as 1778 indicated that Dokdo/Takeshima was recognized as Korean territory. For example, in 1785, the Japanese government published the *Sangoku Setsujozu* ("A Map of Three Adjoining Countries"), which labeled Dokdo/Takeshima as "Korea's possessions."[156]

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[147] Van Dyke, *Legal Issues Related to Dokdo, supra* note 4, at 166.

[148] *Why Dokdo is Korean Territory*, *supra* note 143.

[149] *Id.*

[150] Haas, *supra* note 135, at 22-23.

[151] Shin, *supra* note 132, at 349.

[152] Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 175.

[153] Shin, *supra* note 132, at 351-54; Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 178-79.

[154] Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 178-79.

[155] Shin, *supra* note 132, at 352-53. Under traditional customary international law governing territorial disputes, maps are not undisputed evidence of territory and were only considered collateral evidence. However, the customary international law on the evidentiary value of maps has been "in transition," as evidenced by changing ICJ decisions. Hyung K. Lee, *Mapping the Law of Legalizing Maps: The Implications of the Emerging Rule on Map Evidence in International Law*, 14 PAC. RIM L. & POL'Y J. 159, 161-64 (2005) (arguing that the ICJ's decisions signals this modern trend of placing greater evidentiary value on maps).

[156] Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 165.

Furthermore, South Korea points to various post-World War II documents that show Japan's claim to Dokdo/Takeshima ended with its defeat in World War II. According to South Korea, the San Francisco Peace Treaty, which provided the terms for Japan's surrender, also relinquished Japanese claims to Dokdo/Takeshima.[157] Article 2(a) states, "Japan, recognizing the independence of Korea, renounces all right, title and claim to Korea, including the islands of Quelpart, Port Hamilton and Dagelet."[158] The South Korean government argues that the three islands listed in the treaty are only examples, and that "the mere fact that Dokdo is not named in the said article does not suggest that Dokdo is not included among those territories of Korea that have been separated from Japan."[159]

South Korea also argues that various Supreme Commander for the Allied Powers Instructional Notes ("SCAPINs") expressly state that Dokdo/Takeshima was not Japanese territory following their defeat in World War II.[160] SCAPIN No. 677, issued in 1946 placed Dokdo/Takeshima outside Japanese administrative control.[161] It states:

> (1) The Imperial Japanese government is directed to cease exercising, or attempting to exercise, governmental or administrative authority over any area outside of Japan . . .
>
> (3) For the purposes of this directive, Japan is defined to include the four main islands of Japan (Hokkaido, Honshu, Kyushu and Shikoku) and the approximately 1,000 smaller adjacent islands, including the Tsushima Islands and the Ryukyu (Kansei) Islands . . . and excluding (a) Utsuryo (Ullung) Island, Liancourt Rocks (Take Island) and Quelpart (Seishu or Cheju) Island[.][162]

Additionally, SCAPIN No. 1033, issued on June 22, 1946, established authorized areas for Japanese fishing and whaling activities, effectively depriving Japan of the ability to exploit the resources around Dokdo/Takeshima. Notably, article 3(b) states, "Japanese vessels or

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[157] *See* Treaty of Peace with Japan, Japan-Arg., Austl., Belg., Bol., Braz., etc.), art. 2(a), Sept. 8, 1951, 136 U.N.T.S. 45 [hereinafter San Francisco Peace Treaty].

[158] *Id.*

[159] *Why Dokdo is Korean Territory, supra* note 143.

[160] *Why Dokdo is Korean Territory, supra* note 143. SCAPINs are instructions issued by the Supreme Commander of the Allied Powers that function as directions for the implementation of the terms of Japan's surrender. *See also infra*, notes 164–166 and accompanying text.

[161] *Infra*, note 165 and accompanying text.

[162] Memorandum from the Central Headquarters Supreme Commander for the Allied Powers to the Imperial Japanese Government, ¶ 3 (Jan. 29, 1946) (available at: http://www.mofa.go.jp/mofaj/area/takeshima/pdfs/g_taisengo01.pdf). Also referred to as SCAPIN No. 677.

personnel thereof will not approach closer than twelve (12) miles to Takeshima (37°15' North Latitude, 131°53' East Longitude) nor have any contact with said island."[163] Furthermore, SCAPIN No. 1778, issued on September 16, 1947, declared Dokdo/Takeshima as a bombing range.[164] The bombing exercise on June 30, 1948 resulted in the death of sixteen South Koreans residing on the island, and wounded six other South Koreans fishing in the area.[165] The harm resulting from the bombing exercise shows active occupation and use of the islands and the surrounding area by the South Korean people.[166]

In conclusion, South Korea principally argues that it has sovereignty over Dokdo/Takeshima based on its annexation of the islands through military conquest, its exercise of effective control over Dokdo/Takeshima from 512 to the present day, and various post-World War II documents that show that Japan's defeat resulted in the relinquishment of Dokdo/Takeshima.

D. Japan's Claims to Dokdo/Takeshima

The Japanese government argues that "[t]he Republic of Korea has never demonstrated any clear basis for its claims that it had taken effective control over Takeshima prior to Japan's effective control over Takeshima and reaffirmation of its territorial sovereignty in 1905."[167]

Japan argues that Dokdo/Takeshima was *terra nullius*, or unoccupied territory, until Japan's formal annexation of the islands in 1905 following its victory in the Russo-Japanese War.[168] In order to acquire sovereignty over *terra nullius*, it must be "territory belonging to no one at the time of the act alleged to constitute the 'occupation.'"[169] The territory must not be "inhabited by tribes or peoples having a social and political

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[163] Memorandum from the Central Headquarters Supreme Commander for the Allied Powers to the Imperial Japanese Government, ¶ 3 (June 22, 1946) (available at: http://www.mofa.go.jp/mofaj/area/takeshima/pdfs/g_taisengo02.pdf). Also referred to as SCAPIN No. 1033.

[164] Memorandum from the Central Headquarters, Supreme Commander for the Allied Powers, to the Imperial Japanese Government (Sept. 16, 1947) (available at: http://1.bp.blogspot.com/_tofFgyyDrT8/SJ2nvEbd3dI/AAAAAAAAAbY/w_CTOZbLLIA/s1600-h/1947+scapin+1778.jpg). Also referred to as SCAPIN No. 1778.

[165] Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 183.

[166] *Id.*

[167] *Japan's Consistent Position on the Territorial Sovereignty over Takeshima*, MINISTRY OF FOREIGN AFF. OF JAPAN, http://www.mofa.go.jp/region/asia-paci/takeshima/index.html (last visited Apr. 6, 2018) [hereinafter *Japan's Position on Takeshima*].

[168] Haas, *supra* note 135, at 20.

[169] Western Sahara, Advisory Opinion, 1975 I.C.J. Rep. 12, ¶ 79 (Oct. 16) (citation omitted).

organization."[170] While *terra nullius* was a principle frequently used to justify territories acquired through colonization, it is rarely, if at all, used currently by States as a justification for claims of territorial sovereignty because international law now requires more than "mere discovery."[171] Nevertheless, international law acknowledges claims based on *terra nullius* if the acquisition of the territory occurred during a time in which the doctrine of *terra nullius* was widely used and recognized.[172] Accordingly, Japan argues that there is no evidence indicating that Dokdo/Takeshima was occupied by an organized people.[173]

Furthermore, Japan argues that its actions following discovery of Dokdo/Takeshima do not constitute "mere discovery"[174] because it has exercised continuous effective and peaceful control over the islands.[175] According to Japan, there is evidence showing Japanese activity on and around Dokdo/Takeshima indicating the establishment of sovereignty "by the mid-17th century (early Edo period) at the latest."[176] Japan's recognition of Dokdo/Takeshima can be traced back to 1618 when Ohya Jinkichi and Murakawa Ichibei's families "monopolized the management of the island with the de facto approval of the shogunate" for approximately seventy years.[177] Their respective families sailed to Dokdo/Takeshima with the crest of the ruling shogunate family on their sails and hunted sea lions, fished, and gathered timber.[178] As a result of Japanese presence on Dokdo/Takeshima during the 1600s, the islands were used as a navigational port, a docking point for ships, and fishing ground for sea lions and abalone.[179]

In furtherance of its argument that it has continuously exercised effective control over Dokdo/Takeshima, Japan argues that its formal annexation of Dokdo/Takeshima in 1905 was a reaffirmation of its sovereignty over the

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[170] *Id.* ¶¶ 80-81 (holding that Western Sahara was not *terra nullius* because "at the time of colonization Western Sahara was inhabited by peoples which . . . were socially and politically organized in tribes and under chiefs competent to represent them.").

[171] *Island of Palmas* (U.S. v. Neth.), 2 R.I.A.A. 831, 848; DAMROSCH & MURPHY, *supra* note 31, at 360.

[172] *See* DAMROSCH & MURPHY, *supra* note 31, at 360 (The principle of intertemporality applies when title to territory is based on discovery of *terra nullius*).

[173] Haas, *supra* note 135, at 20.

[174] *Island of Palmas*, 2 R.I.A.A. at 848.

[175] *Sovereignty over Takeshima*, MINISTRY OF FOREIGN AFF. OF JAPAN, http://www.mofa.go.jp/a_o/na/takeshima/page1we_000058.html (last visited Apr. 6, 2018); *see The "Takeshima Ikken" (The Takeshima Affair)*, MINISTRY OF FOREIGN AFF. OF JAPAN, http://www.mofa.go.jp/a_o/na/takeshima/page1we_000059.html (last visited Apr. 6, 2018).

[176] *Id.*

[177] *Id.*

[178] *Id.*

[179] *Id.*

islands.[180] Accordingly, the Japanese government incorporated Dokdo/Takeshima into Shimane Prefecture.[181] The Russo-Japanese War convinced the Japanese government of the strategic value of islands off the South Korean coast.[182] Therefore, the Japanese Navy constructed watchtowers and underwater cables to Dokdo/Takeshima, with plans to eventually develop a Japanese military installation on the islands.[183]

After Japan's defeat in World War II, Japan argues that various instruments and documents regarding Japan's territories do not determine Japan's sovereign territories.[184] Regarding the issuance of SCAPIN Nos. 667, 1033, 1778, Japan argues that SCAPINs do not determine policy.[185] They point to provisions in the SCAPINs that "clearly states that '[n]othing in this directive shall not be construed as an indication of Allied policy relating to the ultimate determination of the assignment of Japanese sovereignty.'"[186] In fact, the United States "confirmed that the directive was not an ultimate decision of jurisdiction" but was instead an "operational directive to the Japanese Government tentative in character" and did not constitute an "Allied policy determination of Japanese territory."[187]

Additionally, Japan argues that the San Francisco Peace Treaty was never intended to include Dokdo/Takeshima.[188] South Korea sent a letter to Dean Acheson, Secretary of State of the United States, to include Dokdo/Takeshima under Article 2(a) of the San Francisco Peace Treaty.[189]

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[180] *Japan's Position on Takeshima*, *supra* note 169.

[181] *Incorporation of Takeshima into Shimane Prefecture*, MINISTRY OF FOREIGN AFF. OF JAPAN, http://www.mofa.go.jp/a_o/na/takeshima/page1we_000060.html (last visited May 4, 2018).

[182] Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 175.

[183] *Id.*

[184] *Treatment of Takeshima in the San Francisco Peace Treaty*, MINISTRY OF FOREIGN AFF. OF JAPAN, http://www.mofa.go.jp/a_o/na/takeshima/page1we_000062.html (last visited Mar. 2, 2017).

[185] *Takeshima Immediately After WWII*, Ministry of Foreign Aff. of Japan, http://www.mofa.go.jp/a_o/na/takeshima/page1we_000061.html (last visited Apr. 7, 2018) (quoting SCAPIN No. 677, *supra* note 164, at ¶ 6).

[186] *Id.*

[187] Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 183 ((quoting Seokwoo Lee, *The 1951 San Francisco Peace Treaty with Japan and the Territorial Disputes in East Asia*, 11 PAC. RIM L. & POL'Y J. 63, 105 (2002))..

[188] *Treatment of Takeshima in the San Francisco Peace Treaty*, *supra* note 186.

[189] Letter from Yan You Chan, U.S. Ambassador, S. Kor., to Dean G. Acheson, Sec'y of State, U.S. (July 19, 1961) (available at: http://www.mofa.go.jp/mofaj/area/takeshima/pdfs/g_sfjoyaku02.pdf) (last visited Apr. 7, 2018). *See also Treatment of Takeshima in the San Francisco Peace Treaty*, *supra* note 186.

In response, Dean Rusk, United States Assistant Secretary of State for Far Eastern Affairs, wrote:

> [A]s regards to the island of Dokdo, otherwise known as Takeshima or Liancourt Rocks, this normally uninhabited rock formation was according to our information never treated as part of Korea and, since about 1905, has been under the jurisdiction of the Oki Islands Branch Office of Shimane Prefecture of Japan. The island does not appear ever before to have been claimed by Korea.[190]

This correspondence from Assistant Secretary Rusk classifies Dokdo/Takeshima as Japanese territory and therefore, Japan argues, appropriately omitted from Article 2(a) of the San Francisco Peace Treaty.[191]

Furthermore, Japan, as the nation currently without possession of Dokdo/Takeshima, points out that it has, since 1952, "repeatedly protested strongly" against South Korean occupation of the islands and actions taken by South Korea to strengthen their control over the islands.[192] From the outset, it has protested the establishment of the "Syngman Rhee Line," a declaration from the then-South Korean President establishing South Korea's maritime boundaries as including Dokdo/Takeshima.[193] Japan has called the "Syngman Rhee Line" a "unilateral act in contravention of international law" that resulted in South Korea's now "illegal occupation [of Dokdo/Takeshima] undertaken without basis in international law."[194] Furthermore, Japan protested the designation of Dokdo/Takeshima as a U.S. military training and bombing area.[195] In May 1954, citizens of both Japan and South Korea landed on Dokdo/Takeshima to erect signs of their nation's sovereignty while removing signs displaying the other nation's

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[190] Letter from Dean Rusk, Assistant Sec'y of State for Far E. Affairs, U.S., to Yang You Chan, U.S. Ambassador, S. Kor. (Aug. 10, 1951), *available at* http://www.mofa.go.jp/mofaj/area/takeshima/pdfs/g_sfjoyaku03.pdf (last visited Apr. 7, 2018). *See also Treatment of Takeshima in the San Francisco Peace Treaty*, *supra* note 186.

[191] *See Treatment of Takeshima in the San Francisco Peace Treaty*, *supra* note 186.

[192] *Proposal of Referral to the International Court of Justice*, MINISTRY OF FOREIGN AFF. OF JAPAN, http://www.mofa.go.jp/a_o/na/takeshima/page1we_000065.html (last visited Apr. 2, 2018).

[193] *Establishment of "Syngman Rhee Line" and Illegal Occupation of Takeshima by the Republic of Korea*, MINISTRY OF FOREIGN AFF. OF JAPAN, http://www.mofa.go.jp/a_o/na/takeshima/page1we_000064.html (last visited Apr. 2, 2018); *see also* Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 183.

[194] *Establishment of "Syngman Rhee Line" and Illegal Occupation of Takeshima by the Republic of Korea*, *supra* note 195.

[195] *See* Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 183; SCAPIN No. 1778, *supra* note 166.

sovereignty.[196] Finally, and most significantly, Japan has, on three occasions, requested South Korea to jointly submit this dispute to the ICJ.[197] South Korea has declined all three requests.[198]

The next section of this paper explains why South Korea has been reluctant to submit this dispute to the ICJ and why it should reconsider its position.

IV. THE ICJ IS LIKELY TO RULE IN FAVOR OF SOUTH KOREA

The highly contentious nature of this dispute creates potentially significant repercussions in the event of an unfavorable ICJ ruling. While it is important for any government to enjoy public support, it is especially important for the South Korean government considering President Park Geun-hye's impeachment and removal from office due to corruption.[199] The South Korean government must also understand the risk should it agree to submit this dispute to the ICJ. If the South Korean government were to lose this case, a potentially significant political backlash is likely because a negative ICJ judgment would deprive South Korea of territory that it currently, albeit controversially, controls and administers.[200]

Additionally, a negative ICJ judgment, allowing Japan to obtain sovereignty over Dokdo/Takeshima, will adversely affect South Korea's maritime border as well as its fishing and resource rights around Dokdo/Takeshima. The United Nations Convention on the Law of the Sea ("UNCLOS")[201] allows a nation to establish its territorial sea up to twelve

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[196] Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 189 (citation omitted).

[197] *Proposal of Referral to the International Court of Justice*, *supra* note 194.

[198] *Id.*

[199] During the height of her scandal, investigations and large public protests ensued, dropping President Park's approval rating to as low as 4 percent. Celeste Arrington, *South Korea's President Was Just Impeached. This Is What It Means and What Comes Next,* WASH. POST (Dec. 12, 2016), https://www.washingtonpost.com/news/monkey-cage/wp/2016/12/12/south-koreas-president-was-just-impeached-this-is-what-it-means-and-what-comes-next/?utm_term=.01061e755429. The administration of President Moon Jae-In must work to regain the public trust. *See* Sang-Hun Choe, *South Korea Removes President Park*, N.Y. TIMES (Mar. 9, 2017), https://www.nytimes.com/2017/03/09/world/asia/park-geun-hye-impeached-south-korea.html.

[200] The risk of political backlash is not exclusive to South Korea, however, as the legal status of Dokdo/Takeshima is an equally important issue among the Japanese people, who view South Korea as illegal occupiers of Japanese territory. *Japan's Position on Takeshima*, *supra* note 167.

[201] Both nations are parties to UNCLOS. U.N. Div. for Ocean Aff. and the Law of the Sea, Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements (Apr. 3, 2018), http://www.un.org/depts/los/reference_files/chronological_lists_of_ratifications.htm.

nautical miles from the shore's baseline.[202] In establishing this baseline, a State can consider reefs, deeply indented coastlines, rivers, bays, ports, roadsteads, and low-tide elevations that might affect the location of the coastline.[203] UNCLOS also allows a State to establish an exclusive economic zone ("EEZ") "200 nautical miles from the baselines from which the breadth of the territorial sea is measured."[204] However, "[r]ocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf."[205] In the EEZ, a State has "sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil . . . "[206]

South Korea currently enforces a twelve-mile territorial sea from Dokdo/Takeshima because it argues that Dokdo/Takeshima is a rock that does not create an EEZ.[207] In contrast, Japan argues that Dokdo/Takeshima is an island that permits the creation of an EEZ.[208] Therefore, Japan's acquisition of Dokdo/Takeshima is likely to result in the expansion of its EEZ 200 nautical miles in the Sea of Japan/East Sea toward South Korea. As a result, an ICJ decision in favor of Japan will decrease South Korea's maritime border as well as deprive South Korea of its right to the natural resources around Dokdo/Takeshima.

Nevertheless, the parties should seek ICJ adjudication despite all the associated risks because it is the most realistic solution to this dispute. While a negotiated outcome is the best way forward,[209] it is unlikely to occur because populist forces on both sides would likely prevent either government from accepting anything short of complete and outright control. While a negotiated outcome is certainly the most ideal, the political circumstances and realpolitik considerations are hard to ignore. Especially for South Korea, voters will surely punish lawmakers who agree to any concessions on the legal status of Dokdo/Takeshima because this dispute is a significant unresolved issue that has also become a rallying cry for

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[202] United Nations Convention on the Law of the Sea, arts. 3, 5, Dec. 10, 1982, 1833 U.N.T.S. 397 (defining baseline as the low-water line of the shore).

[203] *Id.* art. 6–12 (providing different methods of defining the baseline).

[204] *Id.* art. 57.

[205] *Id.* art. 121, ¶ 3.

[206] *Id.* art. 56, ¶ 1(a).

[207] Bowman, *supra* note 26, at 442.

[208] *See id.*

[209] *See id.* at 451 (arguing that "Japan should acknowledge Korean sovereignty over Dokdo/Takeshima in exchange for a stipulation that the islets will not impact territorial rights under UNCLOS and an agreement to arbitrate unresolved boundary issues and joint economic development rights").

nationalism.[210] Even agreeing to take this dispute to the ICJ could cause some backlash because "referral of the case to the ICJ appears to concede that Japanese claims to the islands are valid."[211] However, given the strength of South Korea's claims to Dokdo/Takeshima and the likelihood that the ICJ will rule in favor of South Korea, the South Korean government is actually exposing itself to very little risk.

Furthermore, joint referral to the ICJ will advance relations between South Korea and Japan by settling a long-standing dispute between the two nations.[212] South Korea's rejection of Japan's requests for a joint referral to the ICJ has essentially contributed to the maintenance of the status quo because the issue of ownership over Dokdo/Takeshima remains a source of controversy and tension. Resolution of the legal status of Dokdo/Takeshima will present to South Korea and Japan "the opportunity to assume leadership in a lasting regional stability."[213] Indeed, "should Japan and South Korea reach a peaceful resolution to their own territorial dispute, these two countries could establish a precedent that could be applied to their respective island disputes with China."[214] Additionally, resolution of this dispute could set the foundations for South Korea and Japan to build a stronger alliance against North Korean aggression as well as counter China's growing assertiveness in the region.[215]

However, the challenge is bringing South Korea to negotiate a special agreement with Japan. This can be accomplished if the Japanese government makes certain concessions on issues that stem from Japan's colonial rule of South Korea. First, the Japanese government should concede in the special agreement that South Korean claims to Dokdo/Takeshima are closely linked with South Korea's resistance to Japanese colonial rule. This concession acknowledges that South Korea's claims to Dokdo/Takeshima are based on its inability to resist Japan's assertion of its sovereignty over the islands during its colonial rule of Korea and that South Korea's current claims to Dokdo/Takeshima are merely reassertions of its sovereignty over islands it has always effectively controlled and administered. Most importantly, such a concession will acknowledge that Japanese claims to Dokdo/Takeshima are reminiscent of the Japanese colonial government's actions in depriving the Korean people

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[210] Park & Chubb, *supra* note 11.

[211] *Id.*

[212] *Infra* notes 215-222 and accompanying text.

[213] Bowman, *supra* note 26, at 447.

[214] *Id.* at 444.

[215] *Id.* at n. 51 ("Although Korea and Japan arguably have greater individual influence than the ASEAN countries, retaining and strengthening their alliance would serve well in resisting China's territorial ambitions.")

of their own land. Second, the Japanese government should also formally apologize for the atrocities it has committed against the Korean people during the Japanese colonial period, specifically the use of Korean girls and women as comfort women for Japanese soldiers during World War II.[216] It has been estimated that more than 80 percent of the comfort women used to service Japanese soldiers were Korean.[217] The Japanese government has denied its official involvement in the comfort women system, and has therefore refused to issue a formal apology.[218] While such an apology from the Japanese government does not bind the government to conduct investigations or pay additional reparations, it does "bring closure and reconciliation to the festering injuries caused by the Japanese annexation of Korea"[219] because it, at the very least, acknowledges that a wrong was committed.

These concessions are fair to both sides. For Japan, these concessions are not an onerous exchange for South Korea's agreement to appear before the ICJ because the Japanese government would only be required to issue statements and apologies rather than make any payments for reparations. For South Korea, submitting the case to the ICJ after accepting these concessions allows South Korea to resolve other unaddressed issues stemming from Japan's colonial rule of Korea as well as lessen the political impacts of a possible negative ICJ decision. Such concessions from Japan open possible avenues for dialogue and negotiation towards settling the issues of the legal status of Dokdo/Takeshima and comfort women. By making these concessions and agreeing to a joint referral to the ICJ, South Korea and Japan are taking a "significant step towards a genuine reconciliation."[220]

As a preliminary matter, the ICJ must determine the "critical date" of this dispute.[221] The critical date refers to the time at which the dispute has crystallized.[222] Identification of this date is necessary in some cases "to prevent one of the parties from unilaterally improving its position" and from gaining any advantage by "rejecting or evading a settlement."[223]

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[216] Van Dyke, *Reconciliation Between Korea and Japan*, 5 CHINESE J. INT'L. L. 215, 233-34 (citing GEORGE HICKS, THE COMFORT WOMEN: JAPAN'S BRUTAL REGIME OF ENFORCED PROSTITUTION IN THE SECOND WORLD WAR 66 (W.W. Norton ed., 1994)).

[217] *Id.* at 234.

[218] James Ladino, *Ianfu: No Comfort Yet For Korean Comfort Women and the Impact of House Resolution 121*, 15 CARDOZO J. L. & GENDER 333, 337 (2009) ("Japan continued to misrepresent its history by excluding any mention of comfort women in textbooks . . . ").

[219] Van Dyke, *Reconciliation Between Korea and Japan*, *supra* note 218, at 235.

[220] *Id.*

[221] *See Minquiers and Ecrehos*, Judgment, 1953 I.C.J. Rep. 47, 59 (Nov. 15).

[222] *See id.*

[223] Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 164.

According to Professor Van Dyke, it is "unlikely that a tribunal would view the matter as having been frozen in time" since 1954, when Japan first proposed submitting the matter to the ICJ, because "a tribunal . . . would probably want to examine the entire sequence of historical events concerning the islets." [224] Professor Van Dyke argues that "no single date stands out as the critical date, and, as in the *Minquiers and Ecrehos* case, all aspects of the history should be evaluated by a tribunal entrusted with the task of determining sovereignty."[225]

Consideration of various factors indicate that the ICJ will likely rule in favor of South Korea.[226]

In determining the legal status of Dokdo/Takeshima, the ICJ should first look to the San Francisco Peace Treaty[227] and the Treaty on Basic Relations[228] because these treaties are relevant in defining Japan's post-war territorial boundaries and relations with Korea. However, because the San Francisco Peace Treaty, does not directly mention Dokdo/Takeshima, it may not be relevant in determining the legal status of Dokdo/Takeshima.[229] If at all, the ICJ could "conclude that the [San Francisco] Peace Treaty's failure to mention Dokdo creates an 'ambiguity.'" [230] If the ICJ were to make such a conclusion, the ICJ "could examine the *travaux preparatoires*, in which case it would find further ambiguity in the conflicting drafts and notes pointing in different directions."[231]

According to Professor Van Dyke, an "[a]nalysis of the drafting history of the 1951 Peace Treaty reveals that the Allied powers considered Dokdo in their deliberations, and therefore the Treaty's silence was not a result of failure to consider the island's status."[232] Professor Van Dyke argues that the Allied powers deliberately chose to remain silent on the legal status of Dokdo/Takeshima "either because not enough information has been provided regarding the historical events surrounding Japan's incorporation

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[224] *Id.*

[225] *Id.*

[226] Brian Taylor Sumner, *Territorial Disputes at the International Court of Justice*, 53 DUKE L. J. 1779, 1782-92 (2004) (identifying nine total categories of analysis for deciding territorial claims: treaties, geography, economy, culture, effective control, history, *uti possidetis*, elitism, and ideology).

[227] San Francisco Peace Treaty, *supra* note 159.

[228] Treaty on Basic Relations, *supra* note 30.

[229] *See Treatment of Takeshima in the San Francisco Peace Treaty*, *supra* note 194.

[230] Seok-Woo Lee & Jon M. Van Dyke, *The 1951 San Francisco Peace Treaty and Its Relevance to the Sovereignty over Dokdo*, 9 CHINESE J. INT'L L. 741, 756 (2010).

[231] *Id.*

[232] Van Dyke, *Legal Issues Related to Dokdo*, *supra* note 4, at 183.

of Dokdo/Takeshima, or because the Allied powers felt themselves to be incapable, or inadequate adjudicators."[233]

Nevertheless, the ICJ is likely to refuse consideration of the San Francisco Peace Treaty in determining the legal status of Dokdo/Takeshima because it only adds ambiguity to the determination of the legal status of Dokdo/Takeshima.[234]

In contrast, the Treaty on Basic Relations is relevant. Although the Treaty on Basic Relations lacks any reference to sovereignty over Dokdo/Takeshima, Professors Lee and Van Dyke argue, "Japan's willingness to enter into the 1965 Normalization Treaty with Korea without any reference to Dokdo would serve to undercut Japan's claim and could be viewed as having acquiesced to Korea's sovereignty[.] . . ."[235] Japan's willingness to enter into the Treaty on Basic Relations contrasts sharply with its refusal to normalize relations with Russia unless the Northern Territories are also resolved.[236] Additionally, the ICJ can use 1965, the year Korea and Japan entered into the Treaty on Basic Relations, as the "critical date" for this dispute because the treaty henceforth calls for the normalization of relations.

For an analysis of whether South Korea or Japan exercised effective control over Dokdo/Takeshima, the ICJ has a comprehensive record that weigh heavily in favor of South Korea because there is evidence that South Korea initially acquired title over Dokdo/Takeshima, demonstrated effective control over the islands, and is now reasserting its sovereignty over the islands by its current effective control and possession over the islands. Claims based on effective control and history "can overlap"[237] because "historical claims create an underlying entitlement to territory, regardless of whether a state has actual or constructive possession of the land at the time of the claim."[238] At a minimum, "South Korea has proved the requisite discovery and effective and continuous display of authority over the islands."[239]

In order to prevail on the claim that South Korea has exercised effective control over Dokdo/Takeshima, South Korea must demonstrate "continuous

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[233] *Id.* at 184.

[234] *See Treatment of Takeshima in the San Francisco Peace Treaty*, *supra* note 186.

[235] *Lee & Van Dyke*, *supra* note 233.

[236] *See id.*

[237] Sumner, *supra* note 228, at 1789 n.66.

[238] *Id. See also id.* at 1789 n.64 ("Historical claims are greatly strengthened by duration, by the existence over a long period of time (preferably to the present day) of those features that form the basis of the claim) (quoting Andrew Burghardt, *The Bases of Territorial Claims*, 63 GEOGRAPHICAL REV. 225, 230–33 (1973)).

[239] Haas, *supra* note 135, at 25.

and peaceful display of authority" because "discovery alone, without any subsequent act, cannot . . . prove sovereignty. . . ."[240] In the *Legal Status of Eastern Greenland*, the ICJ held:

> [C]laim to sovereignty based . . . upon continued display of authority, involves two elements each of which must be shown to exist: the intention and will to act as sovereign, and some actual exercise or display of such authority.[241]

Accordingly, "the establishment of sovereignty may be the outcome of a slow evolution, of a progressive intensification of State control."[242] A State exercises effective control over a territory when it "establishes in the territory itself an organization capable of making its laws respected."[243] This is achieved through a "series of acts by which the occupying state reduces to its possession the territory in question and takes steps to exercise exclusive authority there."[244]

However, in order for a State to show that it exercised effective control over a territory, evidence that "relates directly to the possession"[245] is necessary. The Arbitral Tribunal in *Eritrea-Yemen* reinforced this principle when it held, "[t]he modern international law of acquisition (or attribution) of territory generally requires that there be: an intentional display of power and authority over the territory, by the exercise of jurisdiction and State functions, on a continuous and peaceful basis."[246] At a minimum, a State can demonstrate effective control if it has made physical improvements to the territory that it is claiming as its own.[247]

Korea first acquired title to Dokdo/Takeshima in 512 when Joseon conquered Usan-guk.[248] There is evidence that predecessor States of South Korea[249] exercised sovereignty and effective control over

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[240] Island of Palmas (U.S. v. Neth.), 2 R.I.A.A. 831, 846 (Apr. 1928) (setting forth the doctrine of effective control and possession as evidence of territorial sovereignty).

[241] Legal Status of Eastern Greenland (Den. v. Nor.), 1933 P.C.I.J. (ser. A/B) No. 53, at 46-47 (Apr. 5).

[242] *Island of Palmas*, 2 R.I.A.A. at 867.

[243] *Arbitral Award on the Subject of the Difference Relative to the Sovereignty over Clipperton Island*, 26 AM. J. OF INT'L L. 390, 393-94 (1932).

[244] *Id.* at 394.

[245] Minquiers and Ecrehos (Fr. v. U.K.), Judgment, 1953 I.C.J. Rep. 47, 55 (Nov. 17).

[246] Eritrea Territorial Sovereignty and the Scope of the Dispute (Eri. v. Yemen), 12 R.I.A.A. 209, ¶ 239 (Perm. Ct. Arb. 1998).

[247] *See* Sovereignty over Pulau Ligitan and Pulau Sipadan (Indon./Malay.), Judgment, 2002 I.C.J. Rep. 625, 682, ¶ 138 (Dec. 17) (noting the improvements made on the islands by the United Kingdom during its colonial rule over Malaysia were sufficient to constitute effective control).

[248] *Why Dokdo is Korean Territory, supra* note 143.

[249] *See supra* note 131 (describing South Korea's predecessor states).

Dokdo/Takeshima. In 1454 the Joseon government incorporated Dokdo/Takeshima under Uljin County, Gangwon Province[250] and in 1900 the Empire of Korea promulgated Imperial Ordinance No. 41, which reincorporated Dokdo/Takeshima under Ulleungdo County.[251] Further evidence of effective control is demonstrated by the Joseon government's successful implementation and enforcement of the vacant island policy from 1417–1881, which forcibly removed inhabitants from all islands surrounding the Korean peninsula and prohibited any future resettlement.[252] As a result of the implementation and enforcement of this policy, the islands had no inhabitants from 1417–1881, and therefore appeared to be *terra nullius*. At no point, however, did Korea abandon or cede Dokdo/Takeshima to Japan during its implementation of the vacant island policy. If at all, the total absence of inhabitants demonstrates Korea intended to administer the islands by ensuring that it remained unpopulated.

Furthermore, Japan's annexation of Korea deprived the Korean government of its sovereign right to exercise effective control over Dokdo/Takeshima or protest Japan's occupation of the islands.[253] The Joseon government's effective control and possession over Dokdo/Takeshima was interrupted by the 1895 Treaty of Shimonoseki, the 1905 Treaty of Portsmouth, and various acts taken by the Japanese government to deprive Korea of its sovereignty even before it was formally annexed. However, if the ICJ were to focus its analysis on postcolonial possession and disregard the historical record prior to colonization because evidence of title pre-colonization is "too fragmentary and ambiguous to be sufficient for any firm conclusion to be based on it," the ICJ will focus on "the conduct of the Parties in the period following independence."[254]

When South Korea regained its independence, it reasserted sovereignty over Dokdo/Takeshima and has since continued to exercise uninterrupted effective control over the islands. According to Professor Van Dyke, "Korea's claim to sovereignty over the islets is stronger than that of Japan, based on the historical evidence of the exercise of sovereignty . . . but most importantly because of Korea's actual physical control of the islets during the past half century.[255] South Korea's current possession and

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[250] *Why Dokdo is Korean Territory*, *supra* note 143.

[251] Shin, *supra* note 132, at 349.

[252] The absence of people on Dokdo/Takeshima gave the islands the appearance that it was *terra nullius*.

[253] Jon M. Van Dyke, *The Republic of Korea's Maritime Boundaries*, 18 INT'L J. MARINE & COASTAL L. 509, 526 (2003) [hereinafter Van Dyke, *Korea's Maritime Boundaries*]

[254] Land, Island and Maritime Frontier Dispute (El Sal./Hond.: Nicar. intervening), Judgment, 1992 I.C.J. Rep. 351, 563, ¶ 341 (Sept. 11).

[255] Van Dyke, *Korea's Maritime Boundaries*, *supra* note 2537, at 524.

administration of Dokdo/Takeshima is significant because the ICJ has articulated repeatedly throughout their decisions in contentious cases pertaining to territorial disputes that effective control and possession are essential elements in demonstrating a State's claim to a territory.[256] The ICJ held in *Minquiers and Ecrehos*, "what is of decisive importance, in the opinion of the Court, is not indirect presumptions deduced from events in the Middle Ages, but the evidence which relates directly to the *possession* of the Ecrehos and Minquiers groups."[257] Furthermore, the ICJ has articulated that improvements undertaken by one State upon a territory is evidence of effective control because it is a display of governmental authority upon the territory.[258] South Korea's recent actions are consistent with the ICJ's decisions that require effective control and possession to demonstrate sovereignty.

South Korea has taken numerous steps to demonstrate its possession of Dokdo/Takeshima. South Korea has constructed on Dokdo/Takeshima a lighthouse, a helipad, a wharf, a desalination plant, and various roads with Korean names.[259] South Korea has also taken steps to strengthen its defense of Dokdo/Takeshima by stationing police officers[260] on the islands and commissioning a 5,000-ton patrol boat to patrol the waters around Dokdo/Takeshima.[261] These recent actions taken by the South Korean government, together with historical evidence indicating its acquisition of title over Dokdo/Takeshima and its effective control of the islands, underscores the strength of South Korea's claims to Dokdo/Takeshima.

Considering that Japan's claim to Dokdo/Takeshima is weaker than South Korea's claim, it certainly is curious that Japan has proposed to South Korea on three occasions to submit a joint referral to the ICJ. There is no evidence that Japan is withholding evidence that will actually strengthen its claim. Perhaps Japan is adamant about taking this dispute for resolution before the ICJ because Japan is not currently occupying Dokdo/Takeshima and thus has little to lose. Indeed, adjudication before the ICJ is probably the only peaceful way that Japan could gain this territory. Additionally, Japan's repeated requests for ICJ submission could

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[256] *See generally Island of Palmas* (U.S. v. Neth.), 2 R.I.A.A. 831, 846 (Perm. Ct. Arb. 1925); *Legal Status of Eastern Greenland* (Den. v. Nor.), 1933 P.C.I.J. (ser. A/B) No. 53, at 46-47 (Apr. 5).

[257] *Minquiers and Ecrehos*, Judgment, 1953 I.C.J. Rep. 47, 57 (Nov. 15) (emphasis added).

[258] *See Sovereignty over Pulau Ligitan and Pulau Sipadan* (Indon./Malay.), Judgment, 2002 I.C.J. Rep. 625, 682 (Dec. 17).

[259] Choe, *supra* note 12.

[260] *Id.*

[261] *Desolate Dots in the Sea Stir Deep Emotions*, *supra* note 22.

be used as evidence to prove that Japan has not acquiesced in protesting South Korea's exercise of sovereignty over the islands, but instead has formally protested South Korea's current occupation of Dokdo/Takeshima.

V. CONCLUSION

The dispute between South Korea and Japan over the legal status of Dokdo/Takeshima should not be viewed as an isolated disagreement between two nations, but should instead be viewed as part of a larger narrative of colonialism and nationalism.

For the Korean and Japanese people, the islands of Dokdo/Takeshima are not "a few tiny islands"[262] in the middle of the ocean. Therefore, when deciding this dispute, the ICJ must always consider the interests of the Korean and Japanese people, who are at the center of this dispute and will be those directly affected by an ICJ decision.

One of the essential functions of the current international law regime is to ensure that the rule of law governs the conduct of nations. While a determination of the legal status of Dokdo/Takeshima is complicated by geopolitics and a history of colonialism, the ICJ is fundamentally qualified to resolve such a dispute because it is, principally, an independent arbiter of disputes under international law.

The current international law regime is also based on cooperation. South Korea and Japan, as participants and supporters of this regime, have a duty to ensure peaceful resolution of their dispute through cooperation. But when cooperation is unrealistic or insufficient, governments are often tempted to act unilaterally. Thankfully, South Korea and Japan have not resorted to armed conflict in order to resolve their dispute, but ICJ adjudication should be sought out now before there is a chance that this dispute escalates. A joint submission to the ICJ will help South Korea and Japan build an even stronger alliance to address the issues facing East Asia in the 21st century. This dispute, while long fraught with conflict and division, can be a source of strength and unity in the 21st century and beyond. It is now time for both countries to move forward to reconciliation and unity.

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[262] Smith, *supra* note 1.

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