
The Right to Bear (Robotic) Arms

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Abstract

Can robotic weapons be “Arms” under the Second Amendment? This article argues that they can. In particular, it challenges the claim that the Second Amendment protects only weapons that can be carried in one’s hands, which has roots in both Supreme Court Second Amendment doctrine, namely *District of Columbia v. Heller*, and scholarship. Scrutinizing these roots shows that *Heller* did not create such a requirement and that little, if any, constitutional basis for it exists.

This article also contextualizes robotic weapons within the established Second Amendment framework for arms. Robotic weapons are not yet arms, but there is no legal impediment—nor should there be—to them becoming arms.

Finally, this article presents an alternative theory of Second Amendment protection for robotic weapons based on auxiliary rights, in light of the Seventh Circuit case *United States v. Ezell*. This article posits that Second Amendment auxiliary rights include the right to employ a bodyguard, whether human or robot.

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1. Law Clerk, United States District Court. To everyone affiliated with the Peking University School of Transnational Law, for your support; to Professor Richard H. Steinberg, for your guidance; and to Hank Scorpio Krueger, because I promised.

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INTRODUCTION

Fully autonomous robotic weapons permeate our militaries.² This technology is percolating into the private sector, yielding robotic weapons capable of defending both ourselves and our homes.³ As this technology continues to advance, many people will choose to defend themselves not by guns, but by robots.

This prompts a constitutional question: are robotic weapons “Arms” under the Second Amendment of the United States Constitution?⁴ Peter Singer of the Brookings Institution has already posed this “very real” question,⁵ and this article is the first to contemplate an answer.⁶ In

2. See *infra* Part I.

3. See *infra* Part I.

4. To be clear, I analyze only whether robotic weapons are within the Second Amendment’s scope, not whether they survive scrutiny. See Eugene Volokh, *Implementing the Right to Keep and Bear Arms for Self-Defense: An Analytical Framework and a Research Agenda*, 56 UCLA L. REV. 1443, 1449-54 (2009) (distinguishing between Second Amendment scope and scrutiny); see also *Ezell v. City of Chicago*, 651 F.3d 684, 701-04 (7th Cir. 2011); *United States v. Reese*, 627 F.3d 792, 800-01 (10th Cir. 2010); *GeorgiaCarry.org, Inc. v. Georgia*, 687 F.3d 1244, 1260 n.34 (11th Cir. 2012).

5. Peter W. Singer, *War of the Robots—All Too Real Questions We Have to Ask*, BROOKINGS INST. (Jan. 8, 2010), <http://bit.ly/X7AUvW> (posing the question of whether the “Second Amendment cover[s] my right to bear (robotic) arms?”); see P.W. Singer, *Ethical Implications of Military Robotics* (Mar. 25, 2009), available at <http://1.usa.gov/VDaKkKw> (asking the same question and stating that this question, along with others, “are very real policy and ethical questions”).

6. This article does not address the question of whether robots themselves can possess rights, constitutional or otherwise. See Lawrence B. Solum, *Legal Personhood for Artificial Intelligences*, 70 N.C. L. REV. 1231 (1992); see also Tim Wu, *Op-Ed, Free Speech for Computers?*, N.Y. TIMES (June 19, 2012), <http://nyti.ms/N6krlv> (analyzing whether machines have First Amendment protection); Kristen Thomasen, *Liar, Liar, Pants on Fire! Examining the Constitutionality of Enhanced Robo-Interrogation* (Univ. Miami, Working Paper), available at <http://bit.ly/14K8765> (analyzing “how robot

particular, this article focuses on the foremost impediment to recognizing most, if not all, robotic weapons as arms under current Second Amendment doctrine: the belief that arms must be capable of being carried upon one's person—or in a more efficient phrasing, that arms must be “wearable.”

The constitutional merits of requiring arms to be wearable have not been seriously examined. Scholarly debates on the matter consist of some explicitly advocating for it⁷ and others simply ignoring it.⁸ The Supreme Court's leading case on the Second Amendment, *District of Columbia v. Heller*,⁹ can be, and has been, interpreted as requiring arms to be wearable;¹⁰ but *Heller* can also be interpreted as not requiring it.¹¹ Finally, Justice Scalia recently opined that arms must be wearable,¹² but the only support for this view in current scholarship and doctrine is a modern *Black's Law Dictionary* definition and an Oregon Supreme Court decision interpreting its state constitution.¹³

This article is the first to seriously examine whether arms must be wearable, arguing that they need not be. It attacks the merits of this alleged requirement in four domains of constitutional arguments: doctrinal, textual, historical, and prudential.¹⁴ It argues both that *Heller*

interrogators might implicate the rights to silence and privacy. . . .”). I, like others, bracket these questions. See, e.g., PATRICK LIN, GEORGE BEKEY & KEITH ABNEY, AUTONOMOUS MILITARY ROBOTS: RISK, ETHICS, AND DESIGN 4-5 (2008) (bracketing the question of robot autonomy and its effect on “the assignment of political rights and moral responsibility . . . or even more technical issues related to free will, determinism, [and] personhood” as important legal issues but outside the report's scope).

7. See Don B. Kates & Clayton E. Cramer, *Second Amendment Limitations and Criminological Considerations*, 60 HASTINGS L.J. 1339, 1351-53, 1353 n.78 (2009); see also *infra* Part III.A.

8. See Nicholas J. Johnson, *Supply Restrictions at the Margins of Heller and the Abortion Analogue: Stenberg Principles, Assault Weapons, and the Attitudinalist Critique*, 60 HASTINGS L.J. 1285, 1292 (2009) (excluding non-wearable weapons like nuclear weapons and howitzers from the Second Amendment's scope because they are not commonly used for a lawful purpose, not because they are not wearable); see also Calvin Massey, *Second Amendment Decision Rules*, 60 HASTINGS L.J. 1431, 1433 (2009) (excluding non-wearable weapons, like cannons, because they are not useful for personal self-defense, not because they are not wearable).

9. *District of Columbia v. Heller*, 554 U.S. 570 (2008).

10. See, e.g., Joseph Blocher, *The Right Not To Keep or Bear Arms*, 64 STAN. L. REV. 1, 1 (2012) (stating that *Heller* concludes “‘bearing’ a gun means carrying it on one's person”).

11. See *infra* Part III.B.

12. See Chris Wallace, *Justice Antonin Scalia on Issues Facing SCOTUS and the Country*, FOX NEWS (July 29, 2012), available at <http://fxn.ws/Q1zv8Y> (live interview recording with transcript).

13. See *infra* Part III.A.2.

14. See LAURENCE H. TRIBE, 1 AMERICAN CONSTITUTIONAL LAW 6 (2000) (discussing the six modalities of constitutional interpretation: history, text, structure, doctrine, ethos, and prudence); see also Sanford Levinson, *The Embarrassing Second*

is better interpreted as not requiring that arms be wearable,¹⁵ and that the Second Amendment does not support such a requirement.¹⁶

Doctrinally, scrutinizing *Heller* reveals that the Court did not intend to establish a wearability requirement for arms.¹⁷ Further, *Heller*'s core holding—that the Second Amendment protects the right of armed self-defense—suggests that arms should be defined by that self-defense principle, not by a weapon's physical attributes.¹⁸

Next, this article argues that the Second Amendment's text and history does not support a requirement that arms be wearable. The Second Amendment's original public meaning, the starting point for determining the Amendment's scope, according to *Heller*,¹⁹ is equivocal at best on this point.²⁰ Even if we choose to credit the original meanings supporting the wearability requirement, we still must "translate" them.²¹ That is, the original public meaning may have been that arms must be wearable, but the impetus for this meaning was not *because* wearability is the *sine qua non* of defining arms. It was because, at the time, only wearable weapons were useful for self-defense.²² Thus, translating the Second Amendment's original meaning to modern times would require that the weapon be useful for self-defense, which robotic weapons are, and not that the weapon be wearable.

As for the fourth constitutional ground, a wearability requirement is imprudent. Such a requirement would categorically exclude robotic weapons from the scope of the Second Amendment, even though they are, or will soon be, a more effective and safer method of self-defense than weapons currently protected by the Amendment. Further, allowing non-wearable weapons to be arms does not expand constitutional protection to inordinately destructive weapons, like bombs or tanks, because other aspects of Second Amendment doctrine independently exclude them.²³

In addition to arguing that arms need not be wearable, this article considers two other aspects relating to a Second Amendment right to robotic weapons. First, it contemplates whether robotic weapons satisfy

Amendment, 99 YALE L.J. 637, 643 (1989) (stating that there are six venues of constitutional arguments: textual, historical, structural, doctrinal, prudential, and ethical).

15. See *infra* Part III.B.

16. See *infra* Parts III.C-D.

17. See *infra* Part III.B.

18. See *infra* Part III.B.2.

19. See *Heller*, 554 U.S. at 576 (2008); see also *infra* note 189 and accompanying text.

20. See *infra* Part III.C.

21. See *infra* Part III.C.1.a.

22. See *infra* Part III.C.1.a.

23. See *infra* notes 157-165 and accompanying text.

the doctrinal definition of arms—whether they are weapons in common use for lawful purposes like self-defense.²⁴ Robotic weapons currently satisfy two aspects of this definition: they are weapons, and they are legitimately used for self-defense.²⁵ However, they are not yet in common use, and there are questions over whether robotic weapons can even be *lawful* self-defense, though this article speculates that they can.²⁶

Second, this article considers an alternative path to protecting robotic weapons under the Second Amendment: auxiliary rights. Auxiliary rights extend beyond the core constitutional right to “ensure that the core right is genuinely protected.”²⁷ The Seventh Circuit recently recognized a Second Amendment auxiliary right extending protection to firing ranges because they enable one to better defend herself.²⁸ These rights arguably also extend Second Amendment protection to certain robotic weapons for the same reason.²⁹

This article proceeds as follows. Part I provides a primer on robotic weapons. Part II introduces *Heller*’s definition of arms, apart from the alleged wearability requirement, and applies that to robotic weapons. Part III discusses whether arms must be wearable and argues that they need not be. Part IV presents the possibility of a Second Amendment auxiliary right to certain robotic weapons. Part V concludes the article.

I. ROBOTICS PRIMER

Robotics is the next transformative technology.³⁰ They “are widely used in manufacturing, warfare, and disaster response, and the market for personal robotics is exploding.”³¹ Generally defined, a robot is any powered machine that senses, thinks, and acts.³² This primer largely

24. See *infra* Part II.

25. See *infra* Part II.A.

26. See *infra* Part II.B.2.

27. See *infra* Part IV.

28. See *Ezell v. City of Chicago*, 651 F.3d 684, 704-11 (7th Cir. 2011); see also *infra* Part IV.

29. See *infra* Part IV.

30. See, e.g., M. Ryan Calo, *Open Robotics*, 70 MD. L. REV. 571, 571 (2011) (noting that Honda predicts that “by the year 2020, it will sell as many robots as it does cars” and that “Microsoft founder Bill Gates believes that the robotics industry is in the same place today as the personal computer . . . business was in the 1970s”); P.W. SINGER, *WIRED FOR WAR* 7-8 (2009). But cf. Tamara Denning et al., *A Spotlight on Security and Privacy Risks with Future Household Robots: Attacks and Lessons* 105-06 (UbiComp Conference, Sept. 30 - Oct. 3, 2009), available at <http://bit.ly/sA5iQ1> (stating “[t]here is no universally accepted definition of what exactly constitutes a ‘robot’” and defining robots for the purposes of the study as “a cyberphysical system with sensors, actuators, and mobility”).

31. Calo, *supra* note 30, at 571. See generally *supra* note 30.

32. See SINGER, *supra* note 30, at 67; see also LIN, BEKEY & ABNEY, *supra* note 6, at 4 (stating that a robot is “[a] powered machine that (1) senses, (2) thinks (in a

focuses on only those robotic weapons capable of making autonomous firing decisions, as in firing without a person's prompting.³³ This primer is also limited to robots that would be the most useful for self-defense, thus omitting, for instance, discussions of autonomous aircraft.³⁴

Armed robots making autonomous firing decisions already exist in the battlefield.³⁵ The U.S. military currently employs at least two: the Navy's Phalanx Close-In Weapon System and the Army's Counter Rocket, Artillery, and Mortar System.³⁶ Both have essentially the same function of targeting and destroying incoming missiles.³⁷ Armed with a large caliber, rapid-fire gun,³⁸ these robots "automatically perform[] search, detecting, tracking, threat evaluation, firing, and kill-assessments

deliberative, non-mechanical sense), and (3) acts") (emphasis removed). More specifically, a robot is a powered machine that "monitor[s] the environment and detect[s] changes in it[,] . . . decide[s] how to respond[,] . . . and [employs] 'effectors' that act on the environment in a manner that reflects the decisions, creating some sort of change in the world. . . ." See SINGER, *supra* note 30, at 67.

33. This article focuses on autonomously firing robots to illuminate just how advanced current robots are in that autonomous robotic sentries are not futuristic speculation, but instead an imminent reality. Technologically, it is easier to build robots that act solely upon human direction, like the already-existing Air Force aerial drones, than one that acts autonomously, which the Air Force expects will not be possible for aircrafts until 2047. See *infra* note 34. Doctrinally, the extent of autonomy is relevant only in the analysis of whether employing a robotic weapon is lawful self-defense. See *infra* notes 119-124 and accompanying text.

34. The Navy has developed an airplane capable of autonomous flight and landing, and the Air Force expects airplanes to be fully autonomous, both in flight and in combat, by the year 2047. See U.S. AIR FORCE, U.S. AIR FORCE UNMANNED AIRCRAFT SYSTEMS FLIGHT PLAN 2009-2047, at 41 (2009), available at <http://bit.ly/pqJuo>; see also X-47B UCAS, NORTHROP GRUMMAN, <http://bit.ly/Wngfv> (last visited Feb. 3, 2013); Tara McKelvey, *Could We Trust Killer Robots?*, WALL ST. J. (May 19, 2012), <http://on.wsj.com/JpAcli>; David Axe, *Refueling Gear Makes Navy's Next Drone Even Deadlier*, WIRED (Nov. 4, 2011, 2:00 PM), <http://bit.ly/vywY3R>.

35. See, e.g., HUM. RTS. WATCH, LOSING HUMANITY: THE CASE AGAINST KILLER ROBOTS (2012), available at <http://bit.ly/XvZzPx>. In addition to the following robots described, the Navy is developing a humanoid robot that fights fires by "throwing propelled extinguishing agent technology (PEAT) grenades." See Donna McKinney, *NRL Designs Robot for Shipboard Firefighting*, U.S. NAVAL RES. LAB (Mar. 7, 2012), <http://bit.ly/xTYND1>; see also Spencer Ackerman, *Video: Navy's Humanoid Robot Dances Gangnam Style* (Oct. 19, 2012, 6:19 PM), <http://bit.ly/R8Y58J>.

36. Other countries, such as Australia, also employ these robots. See *Phalanx*, ROYAL AUSTRALIAN NAVY, <http://bit.ly/Woh424> (last visited Feb. 3, 2013) (discussing only the Phalanx).

37. See LIN, BEKEY & ABNEY, *supra* note 6, at 18-19; see also Gary Marchant et al., *International Governance of Autonomous Military Robots*, 12 COLUM. SCI. & TECH. L. REV. 272, 276 (2011); *Counter Rocket, Artillery, and Mortar (C-RAM)*, GLOBAL SEC., <http://bit.ly/12lljyQ> (last visited Feb. 3, 2013); *MK 15 Phalanx Close-In Weapons System (CIWS)*, GLOBAL SEC., <http://bit.ly/aBoCr0> (last visited Feb. 3, 2013).

38. See *supra* note 37.

of targets.”³⁹ They are large, weighing over 12,000 pounds,⁴⁰ and immobile.⁴¹

Other autonomous robots are designed to target people, not missiles. The Israeli and South Korean militaries employ such robots to patrol their borders.⁴² They “identify[] potential enemy intruders,” and, if necessary, “autonomous[ly] fire . . . [their] weapon.”⁴³

In Korea, the specific robot employed is Samsung’s SGR-A1.⁴⁴ The robot is stationary, with a height and weight of roughly four feet and 258 pounds, and is equipped with a machine gun.⁴⁵ The robot uses vision sensors, along with a voice recognition system, to identify incoming persons.⁴⁶ If the person is not recognized and cannot provide necessary access codes, the robot can “verbally command [her] to surrender,” “sound an alarm, fire rubber bullets,” or fire real bullets.⁴⁷ The robot can autonomously decide to fire its weapon⁴⁸ but will choose not to fire when a person surrenders to it.⁴⁹ In addition to autonomously firing, the robot can shoot upon a person’s command.⁵⁰

In contrast to the soldierly nature of these military robots, most personal robots today are servile. While the former can, without human

39. LIN, BEKEY & ABNEY, *supra* note 6, at 18-19 (also stating that the Navy’s weapon “uses radar sensing of approaching missiles, identifies targets, tracks targets, makes the decision to fire, and then fires its guns, using solid tungsten bullets to penetrate the approaching target”); *see also* McKelvey, *supra* note 34.

40. *Phalanx*, *supra* note 36 (discussing only the Phalanx).

41. *See supra* note 37.

42. *See* LIN, BEKEY & ABNEY, *supra* note 6, at 13-14, 19; Patrick Lin, *Drone-Ethics Briefing: What a Leading Robots Expert Told the CIA*, THE ATLANTIC (Dec. 15, 2011, 2:09 PM), <http://bit.ly/w4J0y5>; *see also* Jean Kumagai, *A Robotic Sentry for Korea’s Demilitarized Zone*, IEEE SPECTRUM (Mar. 2007), <http://bit.ly/cGsJMV> (reporting that “gun-toting sentry robot[s] . . . may soon be coming to a disputed border near you”); *Samsung Techwin SGR-A1 Sentry Guard Robot*, GLOBAL SEC., <http://bit.ly/cNFRDy> (last visited Feb. 5, 2013) [hereinafter *Samsung Techwin*] (discussing only the robot employed in South Korea).

43. LIN, BEKEY & ABNEY, *supra* note 6, at 13-14 (discussing South Korea robots).

44. *See id.* at 19; *Samsung Techwin*, *supra* note 42.

45. *Samsung Techwin*, *supra* note 42; *see also* LIN, BEKEY & ABNEY, *supra* note 6, at 19.

46. *See* LIN, BEKEY & ABNEY, *supra* note 6, at 19; *see also Samsung Techwin*, *supra* note 42.

47. *Samsung Techwin*, *supra* note 42.

48. *See* LIN, BEKEY & ABNEY, *supra* note 6, at 19; *see also Samsung Techwin*, *supra* note 42; Kumagai, *supra* note 42 (noting that the robot has an automatic mode that can make the ultimate decision to fire the machine gun). “Normally,” however, “the ultimate decision about shooting would be made by a human, not the robot.” *Samsung Techwin*, *supra* note 42; *see* LIN, BEKEY & ABNEY, *supra* note 6, at 19.

49. *See Samsung Techwin*, *supra* note 42. The robot interprets a person’s raising her hands above her head as surrendering. *Id.*

50. *See* LIN, BEKEY & ABNEY, *supra* note 6, at 19; *see also Samsung Techwin*, *supra* note 42.

intervention, fire weapons at an enemy,⁵¹ the latter can greet guests,⁵² sweep floors,⁵³ pour beer,⁵⁴ and rear your kids.⁵⁵

But this soldier-service dichotomy of military and personal robots is disappearing. Non-military robots are evolving from servants to sentries. A Japanese robotics company, for example, currently builds and rents robotic security guards capable of patrolling an area, detecting intruders, issuing warnings, and billowing smoke, in an effort to frighten intruders.⁵⁶ A South Korean prison employs an unarmed, mobile robotic sentry.⁵⁷

Soon, these armed robotic sentries will enter the home.⁵⁸ Samsung is reportedly considering building a robotic sentry, a modified version of its SGR-A1, for civilian use, perhaps with a nonlethal weapon.⁵⁹ Already for sale to the public is an immobile robotic sentry armed with

51. See *Samsung Techwin*, *supra* note 42; see also LIN, BEKEY & ABNEY, *supra* note 6, at 19.

52. See Calo, *supra* note 30, at 572.

53. See Robert S. Boyd, *Robots are Narrowing the Gap with Humans*, MCCLATCHY (Apr. 20, 2009), <http://bit.ly/14C5Fh5>; see also Calo, *supra* note 30, at 572; Denning et al., *supra* note 30, at 105-07, 113; Kit Eaton, *AIST's HRP4: Sci-Fi-Like Household Helper Robots Have Arrived*, FAST CO. (Sept. 14, 2010), <http://bit.ly/WMAVHW>.

54. See *Beer Me, Robot*, WILLOW GARAGE (July 6, 2010), <http://bit.ly/dg1EUi>; see also Calo, *supra* note 30, at 572, 586.

55. See, e.g., Noel Sharkey, *The Ethical Frontiers of Robotics*, 322 SCIENCE 1800 (2008), available at <http://bit.ly/11QgaKi> ("In the area of personal-care robots, Japanese and South Korean companies have developed child-minding robots that have facilities for video-game playing, conducting verbal quiz games, speech recognition, face recognition, and conversation."); Denning et al., *supra* note 30, at 105-07, 113.

56. See John Boyd, *Robot Guard Will Smoke Out Villains*, NEW SCIENTIST (Aug. 4, 2004), <http://bit.ly/WOGG4z>; see also *Key Technologies for "SECOM Robotic X,"* SECOM INTELLIGENT SYS. LAB., <http://bit.ly/WMEaPC> (last visited Feb. 5, 2013).

57. See, e.g., "Robo-Guard" on Patrol in South Korean Prison, REUTERS (Apr. 12, 2012), <http://reut.rs/1wUtlx>; "RoboCop" Guards to Patrol South Korean Prisons, TELEGRAPH (Nov. 24, 2011, 9:50 AM), <http://bit.ly/vrMouc>; Evan Ackerman, *RoboCops Now Guard South Korean Prison*, IEEE SPECTRUM (Apr. 16, 2012), <http://bit.ly/IS9kLL>. This robot autonomously detects and analyzes human behavior for abnormalities, such as suicidal inclinations or violent outbursts, and reports those abnormalities to prison guards.

58. See Peter Wayner, *Protecting Your Home from Afar with a Robot*, N.Y. TIMES (Nov. 3, 2010), <http://nyti.ms/11RjtkE> (discussing the growing professional and amateur communities for home robotic sentries). In the non-autonomous variety, a Japanese company has built a four and a half ton robot that wields a Gatling gun and is controlled by cellphone. See James Manning, *Gun-Toting Robot Controlled by Your Smartphone*, SYDNEY MORNING HERALD (July 31, 2012), <http://bit.ly/Q7kDWI>; see also SUIDOBASHI HEAVY INDUS., <http://suidobashijuko.jp/> (last visited Feb. 5, 2013).

59. See Kumagai, *supra* note 42 ("Samsung is also looking to deploy the [SGR-A1]—minus the gun, but perhaps with some sort of nonlethal weapon—at airports, prisons, and nuclear power plants, among other places.").

paintball guns that can identify targets 2.5 miles away, warn targets to surrender, and fire at the target.⁶⁰

Even amateurs are producing armed robotic sentries. Robot enthusiasts today can build lethal robots with parts from Radio Shack and Best Buy for \$600.⁶¹ University students have built a robotic sentry armed with a pistol that is capable of tracking movement and heat.⁶² The robot can fire its weapon either autonomously or by human prompting.⁶³ Other university students have created robots with similar function, but did so using a Nerf gun and an iRobot Create.⁶⁴ This mobile robot can detect intruders and order them to surrender.⁶⁵ If the intruder does not surrender, the robot will autonomously fire its gun.⁶⁶ As a final example, a software engineer developed—and implemented in his backyard—an autonomous robot capable of both detecting squirrels and attacking them with a Super Soaker.⁶⁷

As robotic technology continues advancing, robotic sentries will be armed with legitimate weapons⁶⁸ such as firearms, rubber bullets,⁶⁹ or stun guns.⁷⁰ These sentries will no longer exist just in the battlefield and

60. See *Robot Security*, ROBOT STORE, <http://bit.ly/r8UGoQ> (last visited Feb. 5, 2013).

61. See MARK STEPHEN MEADOWS, WE, ROBOT: SKYWALKER'S HAND, BLADE RUNNERS, IRON MAN, SLUTBOTS, AND HOW FICTION BECAME FACT 31 (2010) ("[S]ome kids in Amsterdam might go down to Radio Shack with €500 and start making their own robots. And to be quite frank, it would cost much less than €500 to make a lethal robot.").

62. See *Thailand: Group of Thai Students Build World's First Armed Robot Security Guard*, REUTERS (Aug. 18, 2000), available at <http://bit.ly/XL6Cz8> [hereinafter *Thailand*]; see also Charles Arthur, *Robot Security Guard Can Track and Shoot*, INDEP. (Aug. 31, 2000), <http://ind.pn/bPORcL>.

63. See *supra* note 62.

64. See Sean McSheehy & Eric Cowley, THE ENGAGING COMPUTING GRP. @ UML, HOME SECURITY PROTOTYPE DEVICE, <http://bit.ly/X06FJi> (last updated May 10, 2012) (see attached report). The iRobot Create is an open platform robot, meaning it has no predetermined function, accepts third party software, and has hardware that can be modified. See *id.*; see also Calo, *supra* note 30, at 583-92 (explaining open platform robotics).

65. See, e.g., McSheehy & Cowley, *supra* note 64.

66. *Id.*

67. David Coburn, *Backyard Genius: 10 Ingenious Amateur Builds for 2012*, POPULAR MECHS. 74 (Sept. 2012), available at <http://bit.ly/14CwlOM> (slide 9).

68. See LIN, BEKEY & ABNEY, *supra* note 6, at 22.

69. Cf. note 47 and accompanying text.

70. At one point, iRobot was developing a robot that employed stun guns to sell to law enforcement and the military. See Noah Shachtman, *Taser-Armed 'Bot Ready to Zap Pathetic Humans*, WIRED (June 28, 2007, 1:12 PM), <http://bit.ly/atH3jc>. Unfortunately, I could not find any updates on this project. Perhaps iRobot folded this idea into their Warrior robot, which can be fitted with weapons of all kinds. See Calo, *supra* note 30, at 582 n.81; see also SINGER, *supra* note 30, at 25; *iRobot 710 Warrior*, iROBOT, <http://bit.ly/YRLuwa> (last visited Feb. 5, 2013).

labs, but also in civilian factories, public places, and our homes.⁷¹ In short, robotic sentries are in a position to become the next generation of self-defense weapons.

II. SECOND AMENDMENT FRAMEWORK

The Supreme Court in *District of Columbia v. Heller* held that the Second Amendment grants each person an individual right to possess arms.⁷² The *Heller* Court further declared that arms are any weapon in common use for lawful purposes like self-defense.⁷³ Abstractly, arms can be viewed as both a subject matter and a limiting principle. The subject matter, weapons, is broad,⁷⁴ and the limiting principle—common use for self-defense—narrows that breadth.⁷⁵

Under this framework, robotic weapons would be eligible for protection because they fit the broad definitional category;⁷⁶ they may soon be in common use for self-defense;⁷⁷ and they may be possessed for the purpose of self-defense.⁷⁸

A. Subject Matter: Weapons

To be an arm, an object must be within the Second Amendment's subject matter: it must be a weapon.⁷⁹ Per *Heller*, a weapon is a "thing that a man wears for his defence, or takes into his hands, or useth in wrath to cast at or strike another."⁸⁰ Accordingly, weapons are more

71. See LIN, BEKEY & ABNEY, *supra* note 6, at 22 (stating that the future "may include robot sentries that guard not only military installations but also factories, government buildings, and the like"); see also Kumagai, *supra* note 42 (stating that Samsung is looking to deploy its robotic sentry "at airports, prisons, and nuclear power plants, among other places"); Thailand, *supra* note 62 (stating that their robotic sentry is "designed to provide security for museums and other public institutions"). That is, assuming they are not outlawed first.

72. *Heller*, 554 U.S. at 592.

73. See *infra* Part II.A-B.

74. See *infra* Part II.A.

75. See *infra* Part II.B.

76. See *infra* Part II.A.

77. See *infra* Part II.B.

78. See *infra* Part II.B.

79. See *Heller*, 554 U.S. at 584. *Heller*'s lexicographic definition of "arms" differs from its constitutional definition. The former definition is weapons; the latter is weapons in common use for lawful purposes. See *id.* at 624-25, 627; see also *infra* Part II.B.

80. *Heller*, 554 U.S. at 581 (internal quotation marks removed) (citing 1 A NEW AND COMPLETE LAW DICTIONARY (Timothy Cunningham ed., 1771)); see AMERICAN DICTIONARY OF THE ENGLISH LANGUAGE (Noah Webster ed., 1989) (1828) (also defining as "weapons of offence, or armour of defence"). Prior to *Heller*, some argued "arms" are not synonymous with "weapons." See David Yassky, *The Second Amendment: Structure, History, and Constitutional Change*, 99 MICH. L. REV. 588, 619 (2000) (stating that arms are "instruments of weapons made use of in war, such as firearms," whereas weapons are

than just firearms.⁸¹ *Heller*'s broad definition makes that clear, as does Court doctrine, which recognizes bows and arrows,⁸² knives,⁸³ and, arguably, nunchakus⁸⁴ as being weapons potentially eligible for Second Amendment protection. Supporting this doctrinal conclusion is historian Gary Wills' finding that arms', etymologically, meant all weapons and not just guns.⁸⁵

This weapons subject matter is not limited to weapons existing at the time of founding.⁸⁶ The Second Amendment protects wholly modern weapons, "just as the First Amendment protects modern forms of communications and the Fourth Amendment applies to modern forms of search. . . ."⁸⁷

"instruments of other kinds (exclusive of fire-arms), made use of as offensive on special occasions").

81. See, e.g., Garry Wills, *To Keep and Bear Arms*, in *WHOSE RIGHT TO BEAR ARMS DID THE SECOND AMENDMENT PROTECT?* 70 (Saul Cornell ed., 2000) (stating that "'arms' in English, as in Latin, is not restricted to the meaning of 'guns'").

82. See *Heller*, 554 U.S. at 584 (explaining that the Court's lexicographical definition of "arms" included bows and arrows).

83. See *McDonald v. City of Chicago*, 130 S. Ct. 3020, 3038 (2010) (discussing "systemic efforts . . . made to disarm" blacks after the Civil War and how these efforts targeted weapons including knives); Eugene Volokh, *Nonlethal Self-Defense, (Almost Entirely) Nonlethal Weapons, and the Right to Keep and Bear Arms and Defend Life*, 62 STAN. L. REV. 199, 218-21, 219 n.79, 219 n.84 (2009); see also *Griffin v. Delaware*, 47 A.3d 487, 491 (Del. 2012) (holding that knives are arms under the Delaware Constitution); *State v. Delgado*, 692 P.2d 610, 610, 614 (Or. 1984) (holding that switchblades are arms under the Oregon Constitution); cf. Clayton E. Cramer & Joseph Edward Olson, *What Did "Bear Arms" Mean in the Second Amendment?*, 6 GEO. J.L. & PUB. POL'Y 511, 512-14 (2008) (discussing swords, spears, and other weapons protected by the Second Amendment's predecessor, the English Bill of Rights).

84. See *Maloney v. Rice*, 130 S. Ct. 3541 (2010) (vacating judgment and remanding the Second Circuit case of *Maloney v. Cuomo* "for consideration in light of *McDonald v. Chicago*"); see also *Maloney v. Cuomo*, 554 F.3d 56 (2d Cir. 2009); cf. *State v. Swanton*, 629 P.2d 98, 98 (Ariz. Ct. App. 1981) (concluding nunchakus are weapons, but holding that nunchakus are not arms under the state constitution because they lack a "recognized [use] in civilized warfare" and are instead "used by . . . ruffian[s], brawler[s], [and] assassin[s]"). Some have persuasively argued that stun guns are also protected. See, e.g., Volokh, *supra* note 83, at 218-21.

85. See Wills, *supra* note 81, at 70 (stating that "'arms' in English, as in Latin, is not restricted to the meaning of 'guns'").

86. See, e.g., *Heller*, 554 U.S. at 582 (stating that "the Second Amendment extends, prima facie, to all instruments that constitute bearable arms, even those that were not in existence at the time of founding" and declaring the argument that the Second Amendment only protects weapons that existed in the 18th century "bordering on the frivolous"); Volokh, *supra* note 83, at 218; Randy E. Barnett, Book Review, *Was the Right to Keep and Bear Arms Conditioned on Service in an Organized Militia?*, 83 TEX. L. REV. 237, 245 (2004) (stating that "[t]he Founders would not have wanted to use the plural of 'gun,' for example, because the term 'arms' also includes edge weapons as well as weapons to be invented in the future").

87. *Heller*, 554 U.S. at 582. See generally *supra* note 86.

Robots are within the Second Amendment's subject matter. Under *Heller*'s broad definition, weapons are "anything *useth* . . . to strike another."⁸⁸ People use robotic sentries to defend themselves and to strike others with bullets. With some robots, the person instructs the robot to strike another. With others, the robot may make the ultimate decision to strike, but the owner's penultimate decision enables the robot's strike. In essence, the owner's decision to employ the robot is an *ex ante* decision to strike another if the need arises—this should be sufficient to say that the person is using that robot to strike another.⁸⁹

B. Limiting Principle: Common Use

The Second Amendment's subject matter, weapons, leaves a broad class of objects theoretically eligible for constitutional protection; the Amendment's limiting principle, common use, prunes that class. Common use requires that the weapon be "typically possessed by law-abiding citizens for lawful purposes like self-defense."⁹⁰ This definition amounts to two separate requirements: quantity and legitimacy. The weapon must be possessed by a sufficient quantity of people,⁹¹ and it must be possessed for lawful reasons.⁹² Machine guns likely fail this

88. *Heller*, 554 U.S. at 581 (emphasis added). See generally *supra* note 80 and accompanying text.

89. Cf. EUGENE VOLOKH & DONALD M. FALK, FIRST AMENDMENT PROTECTION FOR SEARCH ENGINE RESULTS 10-11 (2012), available at <http://bit.ly/PtjwyA> (arguing that search engine results are protected under the First Amendment, even though they result from computer algorithms, because that algorithm is "written by humans" and results from their "human editorial judgments").

90. *Heller*, 554 U.S. at 624-25 (stating that "[t]he traditional militia was formed from a pool of men bringing arms 'in common use at the time' for lawful purposes like self-defense"); see, e.g., Volokh, *supra* note 4, at 1478; Allen Rostron, *Protecting Gun Rights and Improving Gun Control After District of Columbia v. Heller*, 13 LEWIS & CLARK L. REV. 383, 388-90 (2009) (discussing *Heller*'s arrival at and application of the common use test).

91. See, e.g., Johnson, *supra* note 8, at 1292-93 (stating that the *Heller* Court ruled machine guns might not be arms because they are "numerically uncommon"); Allen Rostron, *Justice Breyer's Triumph in the Third Battle Over the Second Amendment*, 80 GEO. WASH. L. REV. 703, 710-11 (2012) ("Applying the 'common use' requirement, Justice Scalia unequivocally found that handguns qualify for protection because they 'are the most popular weapon chosen by Americans for self-defense in the home.'"); Andrew R. Gould, Comment, *The Hidden Second Amendment Framework Within District of Columbia v. Heller*, 62 VAND. L. REV. 1535, 1555-56 (2009); cf. Volokh, *supra* note 4, at 1479 (stating that it is not clear whether common use "requires that the typical possessor of the weapon be a law-abiding citizen with lawful purposes, or that possession of the weapon be a typical (that is, common) practice," but sensing that it is the former definition).

92. See, e.g., Johnson, *supra* note 8, at 1292; Rostron, *supra* note 91, at 710-11; Gould, *supra* note 91, at 1555.

first requirement because they are possessed by few;⁹³ bombs and missiles fail both because they are possessed by few and are not useful for self-defense.⁹⁴

1. Common Use, Military Use, and Dangerous Weapons

In addition to the limiting principle of common use, parts of *Heller* suggest there may be three other limiting principles: the weapon must not be “specifically designed for military use . . . [or] employed in a military capacity”;⁹⁵ it must not be “dangerous and unusual”;⁹⁶ and it must be wearable.⁹⁷ This Subpart addresses two of these potential principles, and the following Part addresses the third.

The *Heller* Court declared that two categories of weapons are not arms: those that are “specifically designed for military use . . . [or] employed in a military capacity,”⁹⁸ and those that are “dangerous and unusual.”⁹⁹ The effect of these declarations remains unclear. Are these categories additional limiting principles that a weapon must satisfy to be an arm? Or, is common use the sole limiting principle, and these categories are examples of what usually is not in common use? This distinction is not trivial. If they are limiting principles and a robotic weapon is either (1) designed for or employed by the military, or (2) dangerous and unusual, then that weapon could not be an arm. But if common use is the sole limiting principle, that weapon could be an arm.

Most likely, common use is the sole limiting principle, and the categories of military use and dangerousness are examples of *uncommon* use, offered as an attempt to define common use in the negative.¹⁰⁰ Three reasons compel this reading: first, *Heller* indicated that common

93. See *infra* notes 102, 109 and accompanying text.

94. See, e.g., Johnson, *supra* note 8, at 1292-93; *infra* notes 157-160 and accompanying text.

95. *Heller*, 554 U.S. at 581-82 (stating that “[t]he term [arms] was applied, then as now, to weapons that were not specifically designed for military use and were not employed in a military capacity”).

96. *Id.* at 627; see Volokh, *supra* note 4, at 1480 (stating that “*Heller* does seem to offer one clue to what its [common use] test might mean—that the weapons ought not be ‘dangerous and unusual’”).

97. See *Heller*, 554 U.S. at 582, 584.

98. See *supra* note 95.

99. See *supra* note 96.

100. Cf. Volokh, *supra* note 4, at 1480 (stating that “*Heller* does seem to offer one clue to what its [common use] test might mean—that the weapons ought not be ‘dangerous and unusual’”). Some have criticized the historical merits of *Heller* on this point. See *id.* at 1480-81. But see Patrick J. Charles, *Scribble Scrabble, the Second Amendment, and Historical Guideposts: A Short Reply to Lawrence Rosenthal and Joyce Lee Malcolm*, 105 NW. U. L. REV. COLLOQUY 227, 238-42 (2011) (criticizing Volokh’s “assessment of the historical record [a]s misleading”).

use is the only limiting principle; second, federal appellate courts indicated the same; and third, treating these two categories as additional limiting principles would yield illogical outcomes.

Heller indicated that common use is the only limiting principle. In discussing the limits of the Second Amendment, the Court listed only one limit on the types of weapons possessed: the common use test.¹⁰¹ Additionally, in determining what weapons are arms, the Court applied only the common use test, not the categories of military use and dangerousness. For example, in determining that the Second Amendment does not protect “ordinary military equipment” and machine guns, the Court explained its reasoning in terms of common use: “the Second Amendment does not protect those weapons not typically possessed by law-abiding citizen for lawful purposes.”¹⁰² Similarly, the Court concluded that the “weapons . . . most useful in military service, M-16 rifles and the like, may be banned” on the grounds that they are not in common use.¹⁰³ Finally, the Court indicated that the dangerousness category was not a separate limiting principle; rather, it instead “supported” the common use limiting principle.¹⁰⁴

Federal appellate courts confirm this reading of *Heller*.¹⁰⁵ They determine whether a weapon is an “arm” by applying the common use test to the weapon.¹⁰⁶ Largely, these courts do not ask whether the

101. See *Heller*, 554 U.S. at 627 (“[A]nother important limitation on the right to keep and carry arms . . . [is] that the sorts of weapons protected [are] those ‘in common use at the time.’”). The other limitations *Heller* discussed were not limitations on the types of weapons protected by the Second Amendment, but limitations on the types of people who possess the right to keep and carry arms and the types of locations to which this right extends. *Id.* at 625-26 (“[N]othing in our opinion should be taken to cast doubt on the longstanding prohibitions on the possession of firearms by felons and the mentally ill, or laws forbidding the carrying of firearms in sensitive places such as schools and government buildings. . . .”).

102. *Id.* at 624-25.

103. See *id.* at 624-25, 627 (explaining why M-16 rifles may be banned by using the same language used to support the common use test).

104. See *id.* at 627 (finding that “[the common use test] is fairly supported by the historical tradition of prohibiting the carrying of ‘dangerous and unusual weapons’”) (emphasis added).

105. See *State v. Kessler*, 614 P.2d 94, 99 (Or. 1980). The Oregon Supreme Court, in a pre-*Heller* case, similarly interpreted the Oregon Constitution. The Oregon court found common use to be the proper test for determining what arms are, and it excluded military weapons from arms because they were not in common use. See *id.* (“[A]dvanced weapons of modern warfare have never been intended for personal possession and protection. . . . Modern weapons used exclusively by the military are not ‘arms’ which are commonly possessed by individuals for defense, therefore, the term ‘arms’ in the constitution does not include such weapons.”).

106. See, e.g., *United States v. Zaleski*, No. 11-660-cr(L), 2012 WL 2866278, at *1 (2d Cir. July 13, 2012) (concluding that “the Second Amendment does not protect [the defendant’s] personal possession of machine guns” because the guns are not “‘weapons not typically possessed by law-abiding citizens for lawful purposes’”) (quoting *Heller*,

weapon is used in the military or is dangerous and unusual.¹⁰⁷ In fact, two cases expressly endorse the reading that these categories are intended not as additional limiting principles, but instead as the antithesis of common use.¹⁰⁸ For example, the Eighth Circuit held that the Second Amendment does not protect machine guns because they “are not in common use by law-abiding citizens for lawful purposes and therefore fall within the category of dangerous and unusual weapons.”¹⁰⁹

Lastly, these two categories cannot be additional limiting principles because this would yield illogical outcomes. Some weapons may be in common use for self-defense, yet also be designed by or employed in the military. In such situations, *Heller* arguably indicates that common use is what matters, and the relevant weapon is an arm. Though not commenting directly on the matter, the Court recognized that muskets are arms because they were in common use, even though the Court also recognized that muskets were employed in a military capacity.¹¹⁰ Similarly, the Court recognized handguns are arms because they are in common use for self-defense,¹¹¹ even though large-caliber revolvers, a

554 U.S. at 625); *Hamblen v. United States*, 591 F.3d 471, 474 (6th Cir. 2009) (holding that machine guns are not protected because “the Second Amendment does not protect those weapons not typically possessed by law-abiding citizens for lawful purposes”) (internal quotation marks removed); *United States v. Chester*, 628 F.3d 673, 676, 678-79 (4th Cir. 2010) (stating that *Heller* limits the types of weapons protected under the Second Amendment to “only [those] weapons ‘typically possessed by law-abiding citizens for lawful purposes’”); *Moore v. Madigan*, 702 F.3d 933, 937 (7th Cir. 2012) (“*Heller* treated Blackstone’s reference to ‘dangerous or unusual weapons’ as evidence that the ownership of *some* types of firearms is not protected by the Second Amendment, but the Court cannot have thought *all* guns are ‘dangerous or unusual’ and can be banned, as otherwise there would be no right to keep a handgun in one’s home for self-defense.”) (internal citation omitted). *But cf.* *United States v. Hatfield*, 376 F. App’x 706 (9th Cir. 2010) (holding that the Second Amendment does not protect modern sawed-off shotguns because they “are not typically possessed for lawful purposes and constitute ‘dangerous and unusual weapons’”) (quoting *Heller*, 554 U.S. at 627).

107. See *supra* note 106.

108. See *United States v. DeCastro*, 682 F.3d 160, 165 n.5 (2d Cir. 2012) (interpreting *Heller* as concluding that “the Second Amendment right does not encompass all weapons, but only those ‘typically possessed by law-abiding citizens for lawful purposes’ and thus does not include the right to possess ‘dangerous and unusual weapons’”); see also *United States v. Fincher*, 538 F.3d 868, 873-74 (8th Cir. 2008).

109. *Fincher*, 538 F.3d at 873-74.

110. See *Heller*, 554 U.S. at 582, 624-25, 627 (stating that “the traditional militia was formed from a pool of men bringing arms ‘in common use at the time’ for lawful purposes like self-defense” and that founding era men “would bring the sorts of lawful weapons that they possessed at home to militia”); see also *Kessler*, 614 P.2d at 98 (finding that “[i]n the colonial and revolutionary war era, weapons used by militiamen and weapons used in defense of person and home were one and the same,” and concluding that “the term ‘arms’ as used by the drafters of the constitutions probably was intended to include those weapons used by settlers for both personal and military defense”).

111. See *Heller*, 554 U.S. at 629.

significant subset of this category,¹¹² were originally designed for military use.¹¹³

2. Robots & Common Use

Robotic weapons fail the quantitative requirement of common use. Put bluntly, this means they are not yet arms and receive no constitutional protection. Therefore, if Congress chose, it could ban robotic weapons, meaning robots would never be in common use, and thus never be arms.¹¹⁴ But just because Congress can ban them, does not mean it should. This article argues that robotic weapons are both more effective and safer than firearms,¹¹⁵ so banning them, as opposed to regulating them,¹¹⁶ would be myopic.

112. See U.S. BUREAU OF ALCOHOL, TOBACCO, FIREARMS, & EXPLOSIVES, ANNUAL FIREARMS MANUFACTURING AND EXPORTING REPORT 1 (2010), available at <http://1.usa.gov/VHpCCC>. In 2010, large-caliber revolvers, ranging from a caliber of .357 to .50, accounted for roughly 15% of all handguns manufactured (but not exported) in the United States. *Id.*

113. See DOUGLAS C. MCCHRISTIAN & JOHN P. LANGELLIER, THE U.S. ARMY IN THE WEST, 1870–1880: UNIFORMS, WEAPONS, AND EQUIPMENT 117–18 (2006). A prominent gun manufacturer originally created and designed this weapon specifically for military use, as the small-caliber version available to everybody was “unsuitable for military purposes.” See *id.* (stating that production of revolvers using metallic cartridges “had been limited to small-caliber revolvers that were unsuitable for military purposes”). The modern large-caliber revolver employs metallic cartridges for bullets, making “the revolver easier to load, more dependable, and safer to use.” See DAVID KENNEDY & BRUCE CURTIS, GUNS OF THE WILD WEST 129 (2005). A prominent gun manufacturer originally created and designed this weapon specifically for military use, as the small-caliber version available to everybody was “unsuitable for military purposes.” MCCHRISTIAN & LANGELLIER, *supra* note 113, at 117–18 (stating that production of revolvers using metallic cartridges “had been limited to small-caliber revolvers that were unsuitable for military purposes”).

114. See Joseph Blocher, *Categoricalism and Balancing in First and Second Amendment Analysis*, 84 N.Y.U. L. REV. 375, 419–20 (2009) (stating that *Heller* “effectively creates a rule that the government may not ban arms that it has not already banned” and pointing out its circularity); see also *Heller*, 554 U.S. at 721 (Breyer, J., dissenting) (“There is no basis for believing that the Framers intended such circular reasoning.”); cf. Adam Winkler, *Heller’s Catch-22*, 56 UCLA L. REV. 1551, 1572–73 (arguing that uncommon use should not matter in assessing the constitutionality of weapons bans).

115. See *infra* Part III.D.

116. See *TRIBE*, *supra* note 14, at 900–03. Regulating robotic weapons will not affect whether they are in common use, as many weapons, including firearms, are subject to extensive regulation. See *id.* at 902–03 (stating that “[e]ven in colonial times the weaponry of the militia was subject to regulation”); see also ADAM WINKLER, *GUNFIGHT: THE BATTLE OVER THE RIGHT TO BEAR ARMS IN AMERICA* 113–18 (2011) (discussing numerous laws regulating guns in the Revolutionary Era and describing them as “strict”); Winkler, *supra* note 114, at 1563.

Assuming Congress does not ban robotic weapons, these weapons will edge towards satisfying common use's quantitative requirement.¹¹⁷ As this occurs, applying the common use test to robotic weapons raises issues endemic to the common use test itself.¹¹⁸ For example, what quantity of robotic weapons is required for them to be in common use? In performing this quantitative analysis, how should the category of robotic weapons be defined? Should courts distinguish between mobile and immobile robots; robots that make autonomous firing decisions and those that must be manually commanded; robots with lethal weapons and those with non-lethal weapons; robots with elementary artificial intelligence and those with sophisticated AI? These are questions that must be addressed before a court can determine whether robotic weapons are in common use.

Beyond these issues surrounding the quantitative requirement, applying the common use test to robotic weapons making autonomous firing decisions raises a legitimacy issue: can such weapons even be *lawful* self-defense?¹¹⁹ Fully answering this question is beyond this article's scope, although it conjectures that these weapons can be lawful self-defense. A similar debate is already occurring in the field of international law, on whether a robotic weapon making autonomous firing decisions violates the laws of war.¹²⁰ This debate seems instructive. The questions considered in determining whether robotic weapons are lawfully used in war, such as whether a robot is sufficiently discriminating or uses a proportional amount of force,¹²¹ are similar to

117. See LIN, BEKEY & ABNEY, *supra* note 6, at 22 (stating that the future "may include robot sentries that guard not only military installations but also factories, government buildings, and the like").

118. See, e.g., Volokh, *supra* note 4, at 1479-81 (discussing difficulties in applying the common use test).

119. A related question is whether a robot firing upon human direction is lawful self-defense. This question, too, is beyond the scope of this article, but its analysis differs from analyzing autonomously firing robots.

120. See, e.g., Kenneth Anderson & Matthew Waxman, *Law & Ethics for Robot Soldiers*, POL'Y REV. No. 176 (Dec. 2012), available at <http://bit.ly/Yk0i6M> (discussing the possibility of, including potential objections to, building a robot programmed to incorporate the laws of war into its decision making); Darren M. Stewart, *Technological Meteorites and Legal Dinosaurs*, in 87 NAVAL WAR COLL. INT'L L. STUDS. 271 (Raul A. Pedrozo & Daria P. Wollschlaeger eds., 2007); U.S. AIR FORCE, *supra* note 34, at 41 ("Authorizing a machine to make lethal combat decisions is contingent upon political and military leaders resolving legal and ethical questions."); Ugo Pagallo, *Robots of Just War: A Legal Perspective*, 24 PHIL. TECH. 37 (2011); Marcus Schulzke, *Robots as Weapons in Just Wars*, 24 PHIL. TECH. 293 (2011); Noel Sharkey, *Weapons of Indiscriminate Lethality*, FIF-KOMMUNIKATION 26 (Jan. 2009), available at <http://bit.ly/XgNTLS>.

121. See *supra* note 120.

some questions courts would ask in determining whether robotic weapons are lawful self-defense.

A possible, if not likely, conclusion of this nascent debate is that an autonomously firing robot can be a lawful use of force under international law.¹²² This conclusion makes sense. Robots can be programmed and are being programmed to explicitly incorporate the factors for lawful use of force into their decision-making.¹²³ Some scientists even believe that robots will one day “perform better than humans” in making lawful battlefield decisions.¹²⁴ Thus, if robots can be

122. See LIN, BEKEY & ABNEY, *supra* note 6, at 43-54 (arguing that eventually a robot with real-time decision-making capability—a sufficiently autonomous robot—should be able to do as well or better than a human operator in such discrimination” and that the laws of war “would permit or even demand that such autonomous robots be used”); *March of the Robots*, *ECONOMIST* (June 2, 2012), available at <http://econ.st/Mc4zDk> (reporting on U.S. Air Force and British Ministry of Defence reports and concluding that robots will eventually be able to make autonomous strikes that comply with international legal norms); see also DEP’T OF DEF., DIRECTIVE NO. 3000.09 (Nov. 21, 2012), available at <http://bit.ly/TlZFm3> (regulating the development and deployment of robotic weapons and currently barring non-human-supervised autonomous weapons from using lethal force); John J. Klein, *The Problematic Nexus: Where Unmanned Combat Air Vehicles and the Law of Armed Conflict Meet*, *AIR & SPACE POWER J. (CHRONICLES ONLINE J.)* (July 22, 2003), <http://1.usa.gov/LEUNbr> (concluding that “once autonomous command and control systems are proven accurate and reliable, autonomous operations should be reconsidered,” as they then may comply with international law); Benjamin Wittes, *Does Human Rights Watch Prefer Disproportionate and Indiscriminate Humans to Discriminating and Proportionate Robots?*, *LAWFARE* (Dec. 1, 2012, 10:19 AM), <http://bit.ly/Sn49K4> (arguing against the *per se* opposition to autonomous weapons propounded by Human Rights Watch). But see HUM. RTS. WATCH, *supra* note 35 (arguing that fully autonomous weapons violate the laws of war and, accordingly, should be banned); see also McKelvey, *supra* note 34 (reporting on a draft proposal by Wendell Wallach of the Yale Interdisciplinary Center for Bioethics arguing that “[m]achines should not be making ‘decisions’ that result in the death of humans”).

123. See, e.g., Ronald C. Arkin, *Governing Lethal Behavior: Embedding Ethics in a Hybrid Deliberative/Reactive Robot Architecture* (Ga. Inst. Tech., Technical Report GIT-GVU-07-11), available at <http://b.gatech.edu/adiIBF> (providing theories and design recommendations for incorporating the laws of war and rules of engagement into an “ethical control and reasoning system potentially suitable for constraining [the] lethal actions” of robots); Ronald C. Arkin & Patrick Ulam, *Overriding Ethical Constraints in Lethal Autonomous Systems 1* (Ga. Inst. Tech., Technical Report GIT-MRL-12-01), available at <http://b.gatech.edu/14CNI1N> (describing “the philosophy, design, and prototype implementation” of a system for overriding a machine’s ethical controls).

124. See McKelvey, *supra* note 34 (reporting on an interview with Ronald Arkin, director of the Mobile Robot Lab at Georgia Tech, when Arkin explains that robots “will not have the full moral reasoning capabilities of humans[,] . . . but I believe they can—and this is a hypothesis—perform better than humans”); see also LIN, BEKEY & ABNEY, *supra* note 6, at 53 (arguing that eventually robots should be able to perform at least as well as humans in legally using force); Boyd, *supra* note 53 (reporting that Intel Chief Technology Officer Justin Rattner has “said that it would take at least until 2050 to close the mental gap between people and machines”); cf. WENDELL WALLACH & COLIN ALLEN, *MORAL MACHINES: TEACHING ROBOTS RIGHT FROM WRONG* 189-91 (2009) (discussing two noted scientists’ prediction that “the advent of computer systems with intelligence

programmed to comply and actually do comply with the laws of war, the same programmability and compliance should occur regarding the laws of self-defense.

III. LIMITING PRINCIPLE(?): WEARABILITY

Heller can be and has been interpreted as establishing another limiting principle, in addition to common use: arms must be wearable.¹²⁵ This interpretation is facially consistent with *Heller*. Under such an interpretation, most robotic weapons would not be arms, as they are too heavy or too cumbersome to carry in one's hands.

This Part argues that *Heller* is better interpreted as not requiring arms to be wearable, and it also argues that the Second Amendment should be similarly interpreted. This Part first explains the questionable origins of the wearability principle, within both *Heller*¹²⁶ and legal scholarship.¹²⁷ Next, it argues that both *Heller*'s context and core indicate that the Court did not intend to limit arms to wearable weapons only.¹²⁸ Then, this Part argues that an originalist interpretation of the Second Amendment provides little, if any, support for the alleged requirement.¹²⁹ Finally, this Part argues normatively, that the more prudent decision is that arms need not be wearable.¹³⁰

A. Wearability's Questionable Origins

1. Within *Heller*

Heller's facial support for requiring arms to be wearable comes in two sentences, two pages apart. First, in defining "bear," the Court noted one definition indicating that it means carrying weapons on the person.¹³¹ Later, the Court declared that the Second Amendment protects "bearable" arms.¹³² From this declaration, scholars have assumed arms

comparable to humans [will be] around 2020-50," and discussing other noted scientists who question this prediction on either temporal or impossibility grounds). *But cf.* Boyd, *supra* note 53 (reporting that "some eminent thinkers, such as Steven Pinker, a Harvard cognitive scientist, Gordon Moore, a co-founder of Intel, and Mitch Kapor, doubt that a robot can ever successfully impersonate a human being").

125. *See, e.g.*, Blocher, *supra* note 10, at 12-13; Kates & Cramer, *supra* note 7, at 1353; *infra* Part III.A.2.

126. *See infra* Part III.A.1.

127. *See infra* Part III.A.2.

128. *See infra* Part III.B.

129. *See infra* Part III.C.

130. *See infra* Part III.D.

131. *See Heller*, 554 US. at 584.

132. *See id.* at 582 ("Just as the First Amendment protects modern forms of communications, and the Fourth Amendment applies to modern forms of search, the Second Amendment extends, *prima facie*, to all instruments that constitute bearable arms,

must be wearable.¹³³ This article argues that this assumption is incorrect,¹³⁴ and this Subpart exposes just how little support *Heller* provides for such a requirement.

Heller was an originalist opinion. The Court used originalism—specifically, original public meaning originalism—to interpret the Second Amendment.¹³⁵ Thus, when it defined bear, the Court looked to founding era dictionaries.¹³⁶ From these dictionaries, the Court concluded that bear means “carry”—just carry generally, not carry on the person—and that “bearing arms” means “carrying for a particular purpose[:] confrontation,” whether offensive or defensive.¹³⁷ At no point during this discussion did the Court define bear to mean carrying upon the person.¹³⁸

In an effort to support this definition gleaned from dictionaries, the Court invoked Justice Ginsburg’s dissent in a prior Supreme Court case, *Muscarello v. United States*,¹³⁹ describing it as “accurately captur[ing] the natural meaning of ‘bear arms.’”¹⁴⁰ This dissent, however, was not about interpreting the word bear in the Second Amendment, but about interpreting the phrase “carries a firearm” in a federal criminal statute.¹⁴¹ Specifically, Justice Ginsburg criticized the majority’s consulting a myriad of sources to define the phrase when none dispositively

even those that were not in existence at the time of the founding.”) (citations omitted); see also Blocher, *supra* note 114, at 415-16. Most likely, the Court intended “bearable” to be ascribed the same definition as “bear.” Others have also made this assumption. See, e.g., Blocher, *supra* note 10, at 12-13 (accepting *Heller*’s conclusion that “[b]ear[]” . . . means to ‘carry’ a gun on one’s person”). One, however, has explicitly avoided this assumption. See Kathleen M. Burch, *The Gun Control Debate and the Power of the Georgia General Assembly: A Historical Perspective*, 2 J. MARSHALL L.J. 93, 101 (2009) (writing that *Heller* “never defines ‘bearable’” and posing rhetorical questions as to what it means, such as whether “[i]f two can carry it, but not one, is it still ‘bearable?’”).

133. See, e.g., Blocher, *supra* note 10, at 12-13; Kates & Cramer, *supra* note 7, at 1353; *infra* Part III.A.2.

134. See *infra* Part III.B.

135. See *Heller*, 554 U.S. at 576; see also *infra* note 189 and accompanying text.

136. See *Heller*, 554 U.S. at 584.

137. *Id.* at 584 (“At the time of the founding, as now, to ‘bear’ meant to ‘carry.’ When used with ‘arms,’ however, the term has a meaning that refers to carrying for a particular purpose—confrontation. . . . [T]he phrase implies that the carrying of the weapon is for the purpose of ‘offensive or defensive action[.]’ . . .”) (citations omitted); see also Barnett, *supra* note 86, at 255-56 (stating that “‘carry’ seems to be the most prevalent synonym of ‘bear’”).

138. See *Heller*, 554 U.S. at 584-92.

139. *Muscarello v. United States*, 524 U.S. 125 (1998).

140. *Heller*, 554 U.S. at 584.

141. See *Muscarello*, 524 U.S. at 126 (“The question before us is whether the phrase ‘carries a firearm’ is limited to the carrying of firearms on the person.”).

illuminated congressional intent.¹⁴² As part of her critique, Justice Ginsburg listed other alternative meanings for the phrase that were not considered by the majority, one of which she claimed was the constitutional meaning: “[W]ear, bear, or carry . . . upon the person or in the clothing or in a pocket, for the purpose . . . of being armed and ready for offensive or defensive action in a case of conflict with another person.”¹⁴³ But supporting this claim of constitutional meaning was only the Second Amendment’s text—the right to “keep and *bear* arms”—and a modern *Black’s Law Dictionary* definition.¹⁴⁴

Neither Ginsburg’s dissent nor *Heller* considered other legitimate definitions for bear. The founding era dictionaries employed in *Heller* defined bear to mean carry.¹⁴⁵ But they did not definitively define carry to mean carry in one’s hands. True, one dictionary did so define carry, defining it as “hav[ing] *on* one’s person.”¹⁴⁶ But another dictionary defined it as “to bear, to have *about* one,”¹⁴⁷ thus plausibly indicating that a weapon need only be carried approximately on one, not on one. Under this definition, bearable weapons would mean weapons capable of being carried about one, not on one.

2. Within Legal Scholarship

The scholarship advancing the wearability requirement can be divided into two groups. The first comprises scholars using the same

142. See *id.* at 142-44 (Ginsburg, J., dissenting) (arguing that “dictionaries, surveys of press reports, . . . [and] the bible [do not] tell us, dispositively, what ‘carries’ means embedded in [the statue,] . . . [as] [s]uch references, given their variety, are not reliable indicators of what Congress meant, in [the statute], by ‘carries a firearm.’”).

143. *Id.* at 143.

144. See *id.*

145. Many definitions of “carry” are inapplicable to the context of bearing arms. See *id.* at 143-44 (arguing that “carries” has many “legal formulations[,] . . . [including] transport, possess, have in stock, prolong (carry over), be infectious, or wear or bear on one’s person” and that “given their variety, [these formulations] are not reliable indicators of what Congress meant, in [a federal statute], by ‘carries a firearm’”); Barnett, *supra* note 86, at 255-57 (stating that “bear” is a “word used with such latitude[] that it is not easily explained”); see also AMERICAN DICTIONARY OF THE ENGLISH LANGUAGE, *supra* note 80 (defining “carry” as meaning “[t]o convey; as, sound is *carried* in the air[;] . . . [t]o urge, impel, lead, or draw, noting moral impulse[;] . . . [t]o run on rotten ground, or on frost”).

146. A COMPLETE DICTIONARY OF THE ENGLISH LANGUAGE (Thomas Sheridan ed., 1790) (defining “carry” as meaning “transport, conduct, or transmit,” and “have on one’s person and take with one wherever one goes”) (emphasis in main text added).

147. AMERICAN DICTIONARY OF THE ENGLISH LANGUAGE, *supra* note 80 (defining “carry” as meaning “[t]o convey from a place; to bear, to have about one” and to “convey[] or transport, by sustaining and moving the thing carried”) (emphasis in main text added).

sources as *Heller*: a modern *Black's Law Dictionary* definition¹⁴⁸ or the Second Amendment's text.¹⁴⁹ The second group comprises scholars invoking sources not cited in *Heller*. Some cite a founding era dictionary's definition of arms: "any thing which a man takes in his hands in anger, to strike or assault another."¹⁵⁰ But this ignores the contrary definition cited in *Heller*, which recognizes arms' dictionary definition (as opposed to its constitutional definition of weapons in common use) as anything that "are *useth* in wrath to cast at or strike another."¹⁵¹

Other arguments cite to pre-*Heller* Oregon Supreme Court decisions interpreting the Oregon Constitution,¹⁵² where that court held that arms "included several handcarried weapons commonly used for defense."¹⁵³ But the Oregon court acknowledges only that arms *include* wearable weapons; it does not conclude that arms exclude non-wearable ones. Further, the court implicitly and repeatedly rejected this notion. In declaring that non-wearable weapons like "cannon[s] and heavy ordnance" are not arms, the court reasoned not along the lines of wearability, but along the lines of common use: cannons and ordnance were not arms because they were "not kept by militiamen or private citizens."¹⁵⁴

Other pre-*Heller* federal and state courts concluded similarly, excluding non-wearable weapons like cannons and missiles from the

148. See, e.g., FLA. ATT'Y GEN., OP. NO. AGO 86-02, AUTHORITY TO REQUIRE LICENSE FOR ELECTRIC WEAPON (Jan. 6, 1986) (stating that the term is generally defined as "[a]nything that a man wears for his defense, or takes in his hands as a weapon").

149. See, e.g., Don B. Kates, Jr., *Handgun Prohibition and the Original Meaning of the Second Amendment*, 82 MICH. L. REV. 204, 261 (1983) (arguing that "since the text refers to arms that the individual can 'keep and bear,' weapons too heavy or bulky for the ordinary person to carry are apparently not contemplated"); Kates & Cramer, *supra* note 7, at 1351-53, 1353 n.78; Richard E. Gardiner, *To Preserve Liberty—A Look at the Right to Keep and Bear Arms*, 10 N. KY. L. REV. 63, 91 n.134 (1982).

150. CLAYTON E. CRAMER, FOR THE DEFENSE OF THEMSELVES AND THE STATE: THE ORIGINAL INTENT & JUDICIAL INTERPRETATION OF THE RIGHT TO KEEP AND BEAR ARMS 8-9 (1994); see Kates & Cramer, *supra* note 7, at 1353, 1353 n.78.

151. A NEW AND COMPLETE LAW DICTIONARY, *supra* note 80 (emphasis added); see *supra* Part II.A; see also *Heller*, 554 U.S. at 584 (quoting this definition and recognizing the "importan[ce]" of this dictionary).

152. See, e.g., Stephen P. Halbrook, *What the Framers Intended: A Linguistic Analysis of the Right to "Bear Arms,"* 49 LAW & CONTEMP. PROBS. 151, 157-60 (citing *State v. Kessler*, 614 P.2d 94, 98 (1980)) (concluding that "[s]ince 'arms' under the second amendment are those which an individual is capable of bearing, artillery pieces, tanks, nuclear devices, and other heavy ordnances are not constitutionally protected").

153. *State v. Kessler*, 614 P.2d 94, 98 (Or. 1980).

154. *Id.*; see David I. Caplan, *The Right of the Individual to Bear Arms: A Recent Judicial Trend*, 4 DET. C.L. REV. 789, 821-22 (1982) (interpreting *Kessler* the same as I do); see also *State v. Delgado*, 692 P.2d 610, 612 (Or. 1984) (reiterating that a weapon is an "arm" if it "is of the sort commonly used by individuals for personal defense").

United States and state constitutions' arms for reasons unrelated to their non-wearable nature.¹⁵⁵ Finally, a recent Ninth Circuit Court of Appeals case suggests that non-wearable weapons, like bombs and missiles, would be excluded on common use grounds rather than wearability grounds.¹⁵⁶

Given this paucity of support, why have some scholars advanced the wearability principle? These arguments originated pre-*Heller*, in an era where the leading Supreme Court case on the Second Amendment—a five-page opinion written in 1939¹⁵⁷—could “be read to support some of the most extreme anti-gun control arguments,” such as a right to keep and bear bazookas, attack helicopters, and nuclear weapons.¹⁵⁸ Thus originated the wearability requirement, as a “limiting principle[] . . . exclud[ing] the sophisticated military technology of mass destruction.”¹⁵⁹

155. See *Cases v. United States*, 131 F.2d 916, 922 (1st Cir. 1942), *cert. denied*, 319 U.S. 770 (1943) (“Another objection to the rule of the *Miller* case as a full and general statement is that according to it Congress would be prevented by the Second Amendment from regulating the possession or use by private persons not present or prospective members of any military unit, of distinctly military arms, such as machine guns, trench mortars, anti-tank or anti-aircraft guns, even though under the circumstances surrounding such possession or use it would be inconceivable that a private person could have any legitimate reason for having such a weapon. It seems to us unlikely that the framers of the Amendment intended any such result.”); see also *State v. Kerner*, 107 S.E. 222, 224-25 (N.C. 1921) (excluding cannons, missiles, submarines, and other weapons of war from arms for a reason not related to wearability). *Kerner* adopted a definition of “arms” that is not tenable post-*Heller*. *Kerner* construed “arms” as being only those weapon in common use at the time of the Second Amendment’s adopting. See *Kerner*, 107 S.E. at 224-25 (construing “arms” to include all weapons that “were in common use, and borne by the people as such when this provision was adopted”); cf. *Heller*, 554 U.S. at 582 (stating that “the Second Amendment extends, prima facie, to all instruments that constitute bearable arms, even those that were not in existence at the time of founding” and declaring the argument that the Second Amendment only protects weapons that existed in the 18th century “bordering on the frivolous”).

156. See *United States v. Henry*, 688 F.3d 637, 640 (9th Cir. 2012) (holding that machine guns are not arms because they “are highly ‘dangerous and unusual weapons’ that are not ‘typically possessed by law-abiding citizens for lawful purposes’” and that “bombs, missiles, and biochemical agents” are more dangerous than machine guns).

157. See *United States v. Miller*, 307 U.S. 174 (1939).

158. Levinson, *supra* note 14, at 654-55 (“Ironically, *Miller* can be read to support some of the most extreme anti-gun control arguments, e.g., that the individual citizen has a right to keep and bear bazookas, rocket launchers, and other armaments that are clearly relevant to modern warfare, including, of course, assault weapons.”); see Michael C. Dorf, *What Does the Second Amendment Mean Today?*, 76 CHI.-KENT L. REV. 291, 297 (2000) (“Indeed, we extrapolate from the logic of *Miller* at our peril, because, under modern conditions, it would seem to grant the most constitutional protection to just those weapons that are least suitable to private possession—distinctly military ‘arms’ such as tanks, attack helicopters, rocket launchers, or even nuclear weapons.”); see also Johnson, *supra* note 8, at 1292 (stating that, pre-*Heller*, opponents to the individual rights interpretation argued arms included “tactical nuclear weapons and stinger missiles” to “undercut the individual rights view”).

159. Kates, *supra* note 149, at 261.

But post-*Heller*, we need not such a limiting principle to exclude weapons of mass destruction. They are not, nor will they ever be, in common use, and they are not useful for self-defense.¹⁶⁰

B. Incompatible with Heller

Courts should not read *Heller* as requiring arms to be wearable. The Court did not intend this result, as four aspects of *Heller* demonstrate.

1. Individual Right, Not Wearable Requirement

First, the main issue *Heller* addressed was whether the Second Amendment grants an individual right to possess arms or instead a right to possess arms only as part of a state-organized militia.¹⁶¹ The *Heller* Court cited *Muscarello* to support its conclusion that the Second Amendment grants an individual right, not to establish a requirement that arms be wearable.¹⁶² *Heller*'s commentary immediately preceding its discussion of *Muscarello* illustrates this inference: "Although the phrase [bear arms] implies that the carrying of the weapon is for the purpose of 'offensive or defensive action,' it in no way connotes participation in a structured military organization."¹⁶³

Second, *Heller* never excluded a weapon from being an arm based on its lack of wearability.¹⁶⁴ In discussing why the "weapons . . . most useful in military service[,] M-16 rifles and the like[,] may be banned," the Court explained it was because these weapons were not in common use.¹⁶⁵ The Court's phrasing of weapons most useful in military service theoretically incorporates all such weapons, including non-wearable ones like tanks and bombs. Yet the Court did not exclude these weapons on wearability grounds.

160. See Johnson, *supra* note 8, at 1292-93.

161. See, e.g., David C. Williams, *Death to Tyrants: District of Columbia v. Heller and the Uses of Guns*, 69 OHIO ST. L.J. 641, 641-43 (2008).

162. See, e.g., Reva B. Siegel, *Dead or Alive: Originalism as Popular Constitutionalism in Heller*, 122 HARV. L. REV. 191, 196 (2008) (stating that the *Heller* majority employs Justice Ginsburg's *Muscarello* dissent to prove that "'bear arms' has nonmilitary meanings"); Blocher, *supra* note 10, at 12-14. The pre-*Heller* Fifth Circuit case *United States v. Emerson* invoked *Muscarello* to support the court's individual right interpretation. See *United States v. Emerson*, 270 F.3d 203, 231-32 (5th Cir. 2001).

163. *Heller*, 554 U.S. at 584.

164. See generally *id.*

165. *Id.* at 627 (stating that these weapons are "highly unusual in society at large" and that they are "the sorts of lawful weapons that they possessed at home to militia duty").

2. Core Right of Self-Defense

Third, *Heller* suggests it is not wearability that matters in determining what are arms, but rather it is whether the weapon is useful for self-defense. *Heller* reasoned that the core of the Second Amendment was the right of armed self-defense.¹⁶⁶ For example, the Court describes self-defense as “central to the Second Amendment right;”¹⁶⁷ “the *central component* of the right itself;”¹⁶⁸ the Amendment’s “core lawful purpose;”¹⁶⁹ an “inherent right;”¹⁷⁰ and as “surely elevate[d] above all other interests” when defending one’s home.¹⁷¹ Following the Court’s lead, federal appellate courts have similarly found armed self-defense to be the core of the right,¹⁷² and so too scholars.¹⁷³

166. See, e.g., Blocher, *supra* note 10, at 2, 15; cf. Eugene Volokh, *State Constitutional Rights to Keep and Bear Arms*, 11 TEX. REV. L. & POL. 191, 193-204 (2006) (listing the text of state constitutions, with the following state’s original constitutions enumerating self-defense as the purpose of the right: Alabama, Arizona, Colorado, Connecticut, Delaware, Florida, Idaho, Indiana, Kansas, Kentucky, Michigan, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Texas, Utah, Vermont, Washington, West Virginia, Wisconsin, and Wyoming). Many have critiqued *Heller*’s originalist analysis in reaching this conclusion. See, e.g., Saul Cornell, *Heller, New Originalism and Law Office History: “Meet the New Boss, Same as the Old Boss,”* 56 UCLA L. REV. 1095 (2009); Richard A. Epstein, *A Structural Interpretation of the Second Amendment: Why Heller is (Probably) Wrong on Originalist Grounds*, 59 SYRACUSE L. REV. 171 (2008); Siegel, *supra* note 162; Mark Tushnet, *Heller and the New Originalism*, 69 OHIO ST. L.J. 609 (2008); J. Harvie Wilkinson III, *Of Guns, Abortions, and the Unraveling Rule of Law*, 95 VA. L. REV. 253 (2009); Winkler, *supra* note 114; Richard Posner, *In Defense of Looseness: The Supreme Court and Gun Control*, NEW REPUBLIC, Aug. 27, 2008, at 32.

167. *Heller*, 554 U.S. at 628.

168. *Id.* at 599.

169. *Id.* at 630.

170. *Id.* at 628.

171. *Id.* at 628-29, 635 (stating that “the need for defense of self, family and property is most acute” in one’s home).

172. See, e.g., *Moore v. Madigan*, 702 F.3d 933, 935, 940 (7th Cir. 2012); *Hightower v. City of Boston*, 693 F.3d 61, 72 (1st Cir. 2012) (“Courts have consistently recognized that *Heller* established that the possession of operative firearms for use in defense of the home constitutes the ‘core’ of the Second Amendment.”); *GeorgiaCarry.org, Inc. v. Georgia*, 687 F.3d 1244 (11th Cir. 2012) (discussing at length *Heller*’s holding placing armed self-defense at the core of the Second Amendment); *United States v. Carter*, 669 F.3d 411, 414-15 (4th Cir. 2012); *Ezell v. City of Chicago*, 651 F.3d 684, 700-01 (7th Cir. 2011) (noting “that the ‘central component of the right’ is the right of armed self-defense, most notably in the home”); *Nordyke v. King*, 644 F.3d 776, 783, 787 (9th Cir. 2011) (discussing at length *Heller*’s holding placing armed self-defense at the core of the Second Amendment and determining whether the law at issue “leaves law-abiding citizens with reasonable alternative means for obtaining firearms sufficient for self-defense purposes”); *United States v. Chester*, 628 F.3d 673, 683 (4th Cir. 2010) (recognizing “the core right identified in *Heller* [as] the right of a *law-abiding, responsible* citizen to possess and carry a weapon for self-defense”); *United States v.*

Heller indicated that this core right of self-defense should guide interpretations of the Second Amendment's scope, stating that "future evaluation[s]" of this scope must not only consider the self-defense purpose of the right, but "elevate [that purpose] above all other interests" ¹⁷⁴ Accordingly, this self-defense purpose has guided courts and scholars' interpretations of the Second Amendment's scope, ¹⁷⁵ and it should similarly guide the interpretation of whether arms must be wearable. ¹⁷⁶ Thus, we should determine what weapons are arms not based on contrived principles relating to the weapon's physical attributes, but on functional principles: whether the weapon is useful for self-defense, ¹⁷⁷ and whether it enables a person to better defend herself than she could without it. ¹⁷⁸

Reese, 627 F.3d 792, 800 (10th Cir. 2010); *United States v. Marzzarella*, 614 F.3d 85, 89 (3d Cir. 2010).

173. See, e.g., Blocher, *supra* note 10, at 15-17; Michael P. O'Shea, *The Right to Defensive Arms After District of Columbia v. Heller*, 111 W. VA. L. REV. 349, 351 (2009); Michael P. O'Shea, *Modeling the Second Amendment Right to Carry Arms (I): Judicial Tradition and the Scope of "Bearing Arms" for Self-Defense*, 61 AM. U. L. REV. 585, 609-12 (2012).

174. *Heller*, 554 U.S. at 635 ("[W]hatever else [the Second Amendment] leaves to future evaluation, it surely elevates above all other interests the right of law-abiding, responsible citizens to use arms in defense of hearth and home."); see *Carter*, 669 F.3d at 415 ("The weight of the right to keep and bear arms depends not only on the purpose for which it is exercised but also on relevant characteristics of the person invoking the right.").

175. See Blocher, *supra* note 10, at 17 (stating that courts and scholars post-*Heller* have often interpreted Second Amendment questions "by referring to the self-defense values underlying the [A]mendment," as detailed in *Heller* and *McDonald*); see also *Heller*, 554 U.S. at 624, 629 (stating handguns are protected by the Second Amendment because they are "the most popular weapon chosen by Americans for self-defense in the home"); *Moore*, 702 F.3d at 935, 940, 942 (using self-defense purpose to find the right to keep and bear arms extends outside the home).

176. See Blocher, *supra* note 10, at 17 (stating that "'keep' and 'bear' must be interpreted in line with [*Heller*'s] self-defense purpose"); see also Massey, *supra* note 8, at 1434-35 ("If we take the Second Amendment seriously, it secures an individual right to carry arms for self-defense, and the popular verdict on the arms that are utile for that purpose is surely as legitimate a source of constitutional construction as the musings of cloistered philosophers."); *Poe v. Ullman*, 367 U.S. 497, 544 (1961) (Harlan, J., dissenting) ("Each new claim to Constitutional protection must be considered against a background of Constitutional purposes, as they have been rationally perceived and historically developed."). Since the Court has already divined the Amendment's purpose—self-defense—from the text's original public meaning, perhaps traditionally purpose-averse judges and justices will be more amenable to using that purpose to define arms.

177. See Massey, *supra* note 8, at 1434-35 ("If we take the Second Amendment seriously, it secures an individual right to carry arms for self-defense, and the popular verdict on the arms that are utile for that purpose is surely as legitimate a source of constitutional construction as the musings of cloistered philosophers."); cf. Akhil Reed Amar, *The Second Amendment as a Case Study in Constitutional Interpretation*, 2001 UTAH L. REV. 889, 904-06 ("Sometimes, we should read a textual right more broadly

Robotic weapons advance these functional principles of enabling self-defense. In fact, robots are better self-defense weapons than traditional firearms: robots are more accurate, react quicker, and never sleep. Furthermore, robots' superiority is especially true in modern society, where increasingly fewer people have chosen to own a gun.¹⁷⁹ In the past 40 years, gun ownership rates have declined roughly 30 percent,¹⁸⁰ now settling at roughly 25 percent.¹⁸¹ For those who have chosen not to own firearms, about two-thirds view guns as "dangerous, 'immoral,' or otherwise objectionable."¹⁸² Thus, in their calculus, many likely view owning a gun as more dangerous than not owning one. Perhaps this calculation would change with robotic weapons, as their risk of accidental injury or amoral use is less than that of firearms.

than its core command might demand because the extra applications of the right can provide a buffer zone protecting the core.").

178. See Blocher, *supra* note 10, at 16 (stating that the Second Amendment right to possess weapons "is not itself an act of self-defense, but a means of enabling such acts").

179. See TOM W. SMITH, PUBLIC ATTITUDES TOWARDS THE REGULATION OF FIREARMS 1 (2007), available at <http://bit.ly/YUrTvb>.

180. See *id.* at Fig. 2 (finding that household gun ownership rates declined from roughly 50% in 1972 to roughly 35% in 2006, and that personal gun ownership rates declined from roughly 29% in 1980 to roughly 21% in 2006). Gun ownership rates vary vastly by region, ranging from about 11.5% in Hawaii to 60.25% in Mississippi, with the median states—South Dakota, Kansas—being about 42.5%. See Deborah Azrael, Phillip J. Cook & Matthew Miller, *State and Local Prevalence of Firearms Ownership: Measurement, Structure, and Trends*, 20 J. QUANTITATIVE CRIMINOLOGY 43, 58-59, Tbl. A4 (2004) (listing gun ownership rates by state); see also Phillip J. Cook, Jens Ludwig, & Adam M. Samaha, *Gun Control After Heller: From a Social Welfare Perspective*, 56 UCLA L. REV. 1041, 1046 (2009) ("[The prevalence of gun ownership differs widely across regions, states, and localities, as well as across different demographic groups]").

181. See PHILLIP J. COOK & JENS LUDWIG, U.S. DEP'T JUST., NAT'L INST. OF JUSTICE: RESEARCH IN BRIEF, GUNS IN AMERICA: NATIONAL SURVEY ON PRIVATE OWNERSHIP AND USE OF FIREARMS 2 (1997) [hereinafter COOK & LUDWIG, NATIONAL SURVEY], available at <http://1.usa.gov/QYSkvG> (finding that "only one-quarter of adults actually own firearms"); see also PHILLIP J. COOK & JENS LUDWIG, GUNS IN AMERICA: RESULTS OF A NATIONAL COMPREHENSIVE SURVEY ON FIREARMS OWNERSHIP AND USE 9-12, Tbl. 2.3 at 12 (1996), available at <http://bit.ly/VEO2aH> (reporting results of three surveys of personal gun ownership rates to be 25.5%, 28.7%, and 24.6%); Cook, Ludwig & Samaha, *supra* note 180, at 1045-47. But see, e.g., SMITH, *supra* note 179, at Fig. 2 (stating that, while personal ownership rate was roughly 21% in 2006, the household ownership rate was 35%); COOK & LUDWIG, NATIONAL SURVEY, *supra* note 181, at 1 (discussing surveys of gun ownership, which find that the percentage of American households owning guns range from 35% to 43%); James Lindgren, Book Review, *Fall from Grace: 'Arming America' and the Bellesiles Scandal*, 111 YALE L.J. 2195, 2203 (2002) (reporting that "only 32.5% of households today own a gun"); *Gun Ownership by State*, WASH. POST, <http://wapo.st/9ns5Ml> (last visited Feb. 6, 2013) (reporting the results of a survey of over 201,000 people that finds the percentage of U.S. households with firearms is 31.7%).

182. COOK & LUDWIG, NATIONAL SURVEY, *supra* note 181, at 3 (discussing results of 1994 survey as to why these "adults were actively opposed to having guns in their homes").

Another reality of modern society is that fewer people are skilled in using guns. Skilled marksmanship requires extensive practice, and it is unlikely that many gun owners achieve this level of competence. Though no empirical support exists for this belief, evidence suggests that the percentages of both people who own guns¹⁸³ and people who are experienced with guns¹⁸⁴ are declining. This lack of skill may make some people wary of or ineffective in using a gun for self-defense, thus further increasing the attraction of using robotic weapons.

3. Peripheral Pronouncement

Finally, the Court indicated that *Heller*'s holding was limited to the core question addressed—the right to possess handguns in the home—and that other issues implicated by its holding require further examination, not deference. This limitation appears in the Court's justification of why it left "so many applications of the right . . . in doubt"¹⁸⁵ The Court explained that *Heller* "represents this Court's first in-depth examination of the Second Amendment, [and] one should not expect it to clarify the entire field."¹⁸⁶

Thus, even if *Heller* is better read as pronouncing that arms must be wearable, such a pronouncement lies on *Heller*'s periphery and requires further examination of its constitutional roots. The Court did not engage

183. See Lindgren, *supra* note 181, at 2197, 2203 (finding that "individual gun ownership in every published (and unpublished) study of early probate records . . . located . . . ranges from 40% to 79%"); see also James Lindgren & Justin L. Heather, *Counting Guns in Early America*, 43 WM. & MARY L. REV. 1777, 1781, 1788-1806, 1835 (2002) (stating that "individual gun ownership in every published study of early probate records that we have located . . . ranges from 50% to 79%," and concluding that "at least 50% of male and female wealthholders owned guns in 1774 colonial America"). One potential reason, among the many, for higher gun ownership in the early republic is the Militia Acts of 1792, which mandated "every citizen, so enrolled [in the militia] and notified, shall, within six months thereafter, provide himself with a good musket or firelock, a sufficient bayonet and belt. . . ." Militia Act of May 8, 1792, ch. 33, § 1, 1 Stat. 271, 271, *repealed by* Dick Act of 1903, ch. 196, § 25, 32 Stat. 775, 780; see Clayton E. Cramer, Nicholas J. Johnson & George A. Mocsary, "This Right is Not Allowed by Governments that are Afraid of the People": The Public Meaning of the Second Amendment when the Fourteenth Amendment was Ratified, 17 GEO. MASON L. REV. 823, 828 (2010) ("[T]he Militia Acts of 1792 and 1803 . . . required every 'free white male citizen' between the ages of eighteen and forty-five to own a gun. . . .").

184. See Lindgren, *supra* note 181, at 2202 (stating that if we define "gun culture [as] mean[ing] growing up in households with guns, learning how to shoot them, widespread participation in military training where guns are used, and using guns as a tool (such as for vermin control), then we definitely had more of a gun culture in the eighteenth century than we do today").

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

186. *Id.* (continuing that "there will be time enough to expound upon the historical justifications for the exceptions we have mentioned if and when those exceptions come before us").

in an in-depth historical analysis of whether arms only include wearable weapons.¹⁸⁷ Further, the revolutionary nature of robotic weapons—the first weapon useful for self-defense that is not wearable—represents a new application of the Second Amendment that the Court did not consider.

C. *Inconsistent with Originalist Interpretation*

The Court in *Heller* did not intend to create a wearability requirement.¹⁸⁸ Nor should it create one in future cases. This requirement is not compelled by the Second Amendment’s original public meaning, which is the interpretative theory that *Heller* and its progeny declared as controlling for analyzing novel Second Amendment questions.¹⁸⁹ Rather, the original public meaning is, at most, equivocal on the matter, with the better interpretation suggesting that weapons need not be wearable.

1. Linguistic Analysis

To ascertain the Second Amendment’s original public meaning, I analyze the Founders’ uses of the relevant text—the words “bear” and “arms”—and discern its meaning from the context its used.¹⁹⁰ Starting

187. See Siegel, *supra* note 162, at 196-97 (stating that the *Heller* majority’s citing of Justice Ginsburg’s dissent in *Muscarello* was “the most prominent” . . . “temporal oddit[y] in the evidence the majority marshals in support of this claim about the original meaning of the Second Amendment”); see also *Heller*, 554 U.S. at 648 n.8 (stating that, in defining “bear arms,” the majority’s use of *Muscarello* “borders on the risible”); cf. *supra* Part III.A.1 (discussing Justice Ginsburg’s support for her conclusion being only the Amendment’s text and a modern *Black’s Law Dictionary*).

188. See *supra* Part III.B.

189. E.g., Lawrence B. Solum, *District of Columbia v. Heller and Originalism*, 103 Nw. U. L. REV. 923, 926 (2009) (stating that “[*Heller*] embraced what has been called ‘original public meaning originalism’”); see, e.g., *Heller*, 554 U.S. at 576 (“In interpreting this text, we are guided by the principle that ‘[t]he Constitution was written to be understood by the voters; its words and phrases were used in their normal and ordinary as distinguished from technical meaning.’”) (citing *United States v. Sprague*, 282 U.S. 716, 731 (1931)); *McDonald v. City of Chicago*, 130 S. Ct. 3020, 3024-25 (2010); *Ezell v. City of Chicago*, 651 F.3d 684, 700-02 (7th Cir. 2011) (stating that *Heller*’s “decision method is instructive” and that “[w]ith little precedent to synthesize, *Heller* focused almost exclusively on the original public meaning of the Second Amendment”); *GeorgiaCarry.org, Inc. v. Georgia*, 687 F.3d 1244, 1261 (11th Cir. 2012) (“*Heller* commands that, in passing on a Second Amendment claim, courts must read the challenged statute in light of the historical background of the Second Amendment.”); *Houston v. City of New Orleans*, 675 F.3d 441, 449 (5th Cir. 2012), *withdrawn and superseded on reh’g on other grounds* (“*Heller* and *McDonald* make clear that courts may consider only the text and historical understanding of the Second Amendment when delimiting the Amendment’s scope.”).

190. See Barnett, *supra* note 86, at 239-40 (stating that original public meaning of the text is “influenced by the context in which a particular word or phrase is used.”).

with bear, I examine only its uses in the context of carrying weapons.¹⁹¹ With each use, I ask the question: would the original public meaning of bearing arms include carrying a weapon about the body, such as when carrying it in a rifle scabbard slung on a horse?¹⁹² If the answer is yes, the original meaning of bear was carrying about one. This result would suggest that arms include non-wearable weapons.

Most uses of bear answer this question equivocally: they can be interpreted as meaning carrying only on the body or meaning carrying on or about the body. One example is a bill regulating deer hunting written by Thomas Jefferson for the Virginia General Assembly, which reads: “[I]f, within twelve months after the date of the recognizance he shall bear a gun out of his inclosed ground, unless whilst performing military duty, it shall be deemed a breach of recognizance. . . .”¹⁹³ Another example comes from John Adams: “[N]or was it permitted them to go about the city, nor to bear arms.”¹⁹⁴ Numerous other equivocal examples are listed in the Appendix.¹⁹⁵

Despite these numerous equivocal examples, at least one post-founding use suggests that bear includes carrying weapons about one. An 1870s Texas statute, titled “Act to regulate the keeping and *bearing* of deadly weapons,”¹⁹⁶ declared it a misdemeanor to “carry[]” certain weapons “on or about [one’s] person, saddle, or in [one’s] saddlebags. . . .”¹⁹⁷ Though this use occurs several years post-founding, it arguably is still relevant to an original public meaning inquiry, as this era’s understanding is likely to be similar to the founder’s understanding.¹⁹⁸

Some have argued that the linguistic meaning of bear arms was a “distinctly military phrase” that did not, “in the strictest sense,” apply to

191. For an examination of the many ways that “bear” was used at founding, see generally Cramer & Olson, *supra* note 83; see also Barnett, *supra* note 86, at 244-47.

192. Cf. Blocher, *supra* note 10, at 17 (asking if a person “places a gun in the glove box of her car, is she ‘bearing’ it?”).

193. Thomas Jefferson, A Bill for the Preservation of Deer (Va. 1785), in 2 THE PAPERS OF THOMAS JEFFERSON 443, 444 (Julian P. Boyd ed., 1950).

194. JOHN ADAMS, A DEFENCE OF THE CONSTITUTIONS OF GOVERNMENT OF THE UNITED STATES OF AMERICA 422 (John Stockdale ed., 1794).

195. See *infra* Appendix A.

196. Law of April 12, 1871, ch. 34, § 1, 1871 Tex. Gen. Laws 25, 6 H. GAMMEL, LAWS OF TEXAS 927 (1898) (emphasis added).

197. State v. Duke, 42 Tex. 455, 456 (1874) (enumerating the weapons prohibited by this Act—“pistol, dirk, dagger, slung-shot, swordcane, spear, brass knuckles, bowie knife, or any other kind of knife, manufactured or sold, for the purpose of offense or defense”—and exempting from it both persons who have “reasonable grounds for fearing an unlawful attack on [their] person” and persons who are carrying for the purpose of “lawful defense of the State, [such] as a militiaman in actual service, or as a peace officer or policeman”).

198. See *Heller*, 554 U.S. at 605.

carrying arms outside the military.¹⁹⁹ This argument does not meaningfully alter the linguistic analysis. Assuming it is true, the inquiry narrows the corpus from all uses of bearing arms to only those in the context of the military. The core question remains essentially the same: would a cavalryman carrying his rifle in a scabbard slung on his horse be bearing arms? The answer remains equivocal.

I next examine the usage of the word arms. With each use of the word, I ask whether it includes or excludes non-wearable weapons. This examination reveals four patterns of uses. First are the equivocal uses, which indicate nothing on this question. A notable example comes from Patrick Henry: “The great object is that every man be armed.”²⁰⁰ Similarly, Thomas Jefferson wrote that “[n]o freeman shall ever be debarred the use of arms.”²⁰¹ Numerous other examples are listed in the Appendix.²⁰² Common to all these examples is that the usage of arms or armed sheds no light on whether arms include or exclude non-wearable weapons.

Second are the uses suggesting that arms are only muskets, excluding even pistols and rifles.²⁰³ This usage cannot be the meaning ascribed to the Second Amendment; *Heller* explicitly disavowed it.²⁰⁴

199. See, e.g., AKHIL REED AMAR, *AMERICA’S CONSTITUTION* 322-26 (2005).

200. D. ROBERTSON, *DEBATES AND OTHER PROCEEDINGS OF THE CONVENTION OF VIRGINIA* 275 (1805).

201. 1 PAPERS OF THOMAS JEFFERSON 344 (J. Boyd ed., 1950).

202. See *infra* Appendix B.

203. See, e.g., 16th Cong., 1st Sess., No. 502, *Loss on a Contract for Muskets* (Jan. 6, 1820), in 1 *AMERICAN STATE PAPERS: DOCUMENTS, LEGISLATIVE AND EXECUTIVE, OF THE CONGRESS OF THE UNITED STATE, FROM THE FIRST SESSION OF THE FIRST TO THE SECOND SESSION OF THE SEVENTEENTH CONGRESS* 685 (Walter Lowrie & Walter S. Franklin eds., 1834) [hereinafter *AMERICAN STATE PAPERS*] (communicating to the House of Representative, in a report titled “Loss on a Contract for Muskets,” about a dispute over the “quantity of arms manufactured . . . under a contract”); 15th Cong., 1st Sess., No. 419, *Contract for Arms* (1818), in *AMERICAN STATE PAPERS* 594 (member of the Committee of Claims reporting to the House of Representatives that the petitioners “entered into a contract with Tench Cox . . . to manufacture for the United States four thousands “stands of arms”); 6th Cong., 1st Sess., No. 112, *Georgia Military Claims* (1800), in *AMERICAN STATE PAPERS* 227 (the Secretary of War reporting to the House of Representatives the need for “an additional thousand “stands of arms and accoutrements”); 3 *THE DEBATES IN THE SEVERAL STATE CONVENTIONS OF THE ADOPTION OF THE FEDERAL CONSTITUTION* 51-52 (John Elliot ed., 1891) (“You cannot force them to receive their punishment: of what service would militia be to you when, most probably, you will not have a single musket in the state? for, as arms are to be provided by Congress, they may or may not furnish them. . . .”). Cannons, by contrast, were generally classified as ordnance. See, e.g., 12th Cong., 1st Sess., No. 105, *Cannon, Small Arms, and Other Munition* (1811), in *AMERICAN STATE PAPERS* 303-04 (reporting to the House of Representatives on the military stores of weapons, detailing the condition of “cannon[s] [as] very good” and that “[f]rom the number of small arms reported ‘fit for service’ it is presumed that a deduction of one-third should be found to want repairs, and for British, German, and other arms, of calibers different from the standard of the United States”); Letter from Henry Knox,

Third are the uses indicating that arms include only wearable weapons. Several Founders used the word in such a manner.²⁰⁵ For example, John Adams wrote of “arms in the hands of citizens. . . .”²⁰⁶

Finally, the fourth use indicates that arms include both wearable and non-wearable weapons. For instance, James Madison and others used arms in a manner inclusive of all military weaponry, including non-wearable artillery.²⁰⁷ Additionally, historian Garry Wills has argued that “arms” meant all weaponry, irrespective of whether it is wearable.²⁰⁸

a. Translating the Linguistic Meaning

As already discussed, one plausible original meaning of the Second Amendment was that it protects wearable arms only. But the Amendment may have obtained that meaning not *because* the weapons

Sec’y of War, to Samuel Hodgdon (Dec. 2, 1794), *available at* <http://bit.ly/WvoUXO> (writing that the New Jersey militia was “directed to deliver up all their Ordnance[,] Arms[,] Military Stores[,] and Accoutrements”). Perhaps the Founders used “arms” to mean muskets because muskets were the only militarily effective weapon at the time. *See* Dorf, *supra* note 158, at 318 (stating that “pistols or rifles . . . were not . . . considered effective military weapons” and that the Founders likely thought the word “arms” to mean muskets).

204. *See Heller*, 554 U.S. at 582 (stating that “the Second Amendment extends, *prima facie*, to all instruments that constitute bearable arms, even those that were not in existence at the time of the founding”); *see also supra* Part II.A.

205. *See, e.g.*, 2 THE DEBATES IN THE SEVERAL STATE CONVENTIONS OF THE ADOPTION OF THE FEDERAL CONSTITUTION, *supra* note 203, at 97 (Theodore Sedgwick asking, rhetorically, whether “an army . . . raised for the purpose of enslaving [the people] . . . could subdue a nation of free men, who know how to prize liberty and who have arms in their hands”); THE FEDERALIST NO. 46 (James Madison) (arguing the futility of a standing army “oppos[ing] a militia amounting to near half a million of citizens with arms in their hands”); 3 THE DEBATES IN THE SEVERAL STATE CONVENTIONS OF THE ADOPTION OF THE FEDERAL CONSTITUTION, *supra* note 203, at 421 (John Marshall asking, “If Congress neglect our militia, we can arm them ourselves. Cannot Virginia import arms? Cannot she put them into the hands of her militia-men?”).

206. ADAMS, *supra* note 194, at 475 (recognizing the legitimacy of “arms in the hands of citizens, to be used in self-defense”).

207. *See* THE FEDERALIST NO. 46, *supra* note 205 (writing of “the last successful resistance of this country against the British arms,” and presumably meaning resistance against all British weaponry, including artillery); *see also* 4 THE DEBATES IN THE SEVERAL STATE CONVENTIONS OF THE ADOPTION OF THE FEDERAL CONSTITUTION, *supra* note 203, at 18 (arguing that the United States “should be empowered to compel foreign nations into commercial regulations that were either founded on the principles of justice or reciprocal advantages. . . . Is not our commerce equally unprotected abroad *by arms* and negotiations”) (emphasis added); *cf.* BARLOW, *infra* note 257.

208. *See* Wills, *supra* note 81, at 70 (stating that, in Roman time, arms “meant weaponry in general, everything from swords to siege instruments”).

were wearable, but because they were the only weapons useful for self-defense.²⁰⁹

We should use that purpose or reason behind the original meaning to “translate” it into a legal meaning.²¹⁰ Such translations often occur when applying the Constitution to technological advancements.²¹¹ For example, it is doubtful that the original public meaning of “speech” in the First Amendment included video games, but its original purpose was protecting expression, of which video games are a form.²¹² Thus, the First Amendment protects video games because they are a form of expression, not because the original public meaning of speech included video games.²¹³

Like the First Amendment, the Second Amendment’s original meaning needs translating. The alleged meaning that arms must be wearable is tainted by the technology of the time: the Second Amendment’s purpose was to protect a right of self-defense, and to that end, non-wearable weapons were near useless. Thus, the original

209. Cf. Dorf, *supra* note 158, at 318 (stating that “pistols or rifles . . . were not . . . considered effective military weapons” and that the Founders likely thought the word “arms” to mean muskets).

210. See Jack N. Rakove, *The Second Amendment: The Highest Stage of Originalism*, 76 CHI.-KENT L. REV. 103, 162 (2000) (arguing that the Constitution allows the federal government to establish the Air Force because one purpose of Article I, Section 8 is to raise military forces to defend the country, even though the Constitution’s text mentions only land- and sea-based forces); Yassky, *supra* note 80, at 625 (arguing that “remaining faithful to the Founders’ intent sometimes requires judges to modify the application of constitutional text over time” and that “a literal application of the constitutional text [can] subvert the Founders’ intent”). See generally Lawrence Lessig, *Fidelity in Translation*, 71 TEX. L. REV. 1165 (1993); cf. Dorf, *supra* note 158, at 318 (arguing that determining how to translate the text’s original public meaning for application to the world today must be determined—at least primarily—normatively, not historically).

211. See, e.g., Dorf, *supra* note 158, at 318 (arguing “[t]here is no obviously correct ‘translation’” as to “how the ‘founders’ understanding of arms [applies] to a world they could not have anticipated” and that this problem permeates constitutional law, including, for instances, the First and Fourth Amendments).

212. See *Brown v. Entm’t Merch. Ass’n*, 131 S. Ct. 2729, 2733 (2011) (“Like the protected books, plays, and movies that preceded them, video games communicate ideas—and even social messages[,] . . . [a]nd whatever the challenges of applying the Constitution to ever-advancing technology, ‘the basic principles of freedom of speech and the press, like the First Amendment’s command, do not vary’ when a new and different medium for communication appears.”); see also Blocher, *supra* note 114, at 416-17 (explaining that “the First Amendment covers an eighteenth-century political pamphlet and a twenty-first-century political blog but not an obscene twenty-first-century *nonpolitical* pamphlet” because “the first two are means of communicating political ideas, a kind of expression that is at the core of the First Amendment”).

213. See *Brown*, 131 S. Ct. at 2733 (holding that “video games qualify for First Amendment protection . . . [because they] communicate ideas”); see also Transcript of Oral Argument at 17, *District of Columbia v. Heller*, 554 U.S. 570 (2008) (No. 08-1448) (Justice Alito ribbing: “Well, I think what Justice Scalia wants to know is what James Madison thought about video games”).

meaning that arms must be wearable may have been born of this technological limitation.

Now, non-wearable weapons are useful for self-defense, and we must translate that original meaning to its legal meaning today. The proper translation is guided by the original meaning's rationale. Accordingly, the modern legal meaning should define arms not by whether they are wearable, but by whether they are useful for self-defense.

D. *Imprudent*

Requiring arms to be wearable is imprudent, as it categorically excludes weapons that are potentially safer than firearms. Without robotic weapons, firearms will continue to cause accidental and unnecessary injuries and deaths.²¹⁴ Employing robots for self-defense

214. See, e.g., *Heller*, 554 U.S. at 636 ("We are aware of the problem of handgun violence in this country, and we take seriously the concerns raised by the many amici who believe that prohibition of handgun ownership is a solution."); *id.* at 693-704 (Breyer, J., dissenting) (crediting the statistics on the problem of handgun violence and discussing the statistics on whether banning handguns increases or decreases violence); *United States v. Reese*, 627 F.3d 792, 802 (10th Cir. 2010) ("That firearms cause injury or death in domestic situations also has been established."); Levinson, *supra* note 14, at 655 (stating that "it appears almost crazy to protect as a constitutional right something that so clearly results in extraordinary social cost"). The empirical data on the net effect of guns on injuries, death, and violence is conflicting; numerous studies show that firearms increase these risks, decrease these risks, or question whether it is knowable. See, e.g., Blocher, *supra* note 10, at 3 (stating that "empirical data regarding self-defense are notoriously contested"); Dorf, *supra* note 158, at 332 (discussing the competing statistics on whether possessing firearms increases the risk of injury or reduces the rate of crime"); *Heller*, 554 U.S. at 693-704 (Breyer, J., dissenting) (concluding that this "set of studies and counterstudies [on the effect of a handgun ban on violence] . . . could leave a judge uncertain about the proper policy conclusion"); Michael C. Dorf, *Does Heller Protect a Right to Carry Guns Outside the Home?*, 59 SYRACUSE L. REV. 225, 230 nn.24-25 (2008) (citing and discussing the contradictory statistics employed in *Heller*); cf. JOHN R. LOTT, JR., *MORE GUNS, LESS CRIME: UNDERSTANDING CRIME AND GUN-CONTROL LAWS* 165 (3d ed. 2010) (finding that the gains from gun ownership "completely overwhelms the[] concerns" of improper use that come with it), and Gary Kleck & Marc Gertz, *Armed Resistance to Crime: The Prevalence and Nature of Self-Defense with a Gun*, 86 J. CRIM. L. & CRIMINOLOGY 150, 151-52 (1995) (stating that "research has consistently indicated that victims who resist with a gun or other weapon are less likely than other victims to lose their property in robberies and in burglaries[;] that victims who resist by using guns or other weapons are less likely to be injured compared to victims who do not resist or to those who resist without weapons[; and that] victims who resisted [rape] with some kind of weapon were less likely to have the rape attempt completed against them"), with Ian Ayres & John J. Donohue III, *Shooting Down the "More Guns, Less Crime" Hypothesis*, 55 STAN. L. REV. 1193, 1202 (2003) (concluding from "the extremely variable results emerging from the statistical analysis [that], if anything, there is stronger evidence for the conclusion that these [shall-issue] laws increase crime than there is for the conclusion that they decrease it"), and Philip J. Cook, *The Technology of Personal Violence*, 14 CRIME & JUST. 1, 4-5 (1991) (highlighting a survey finding "that as

could reduce this number. Robots can be programmed to minimize the possibility of misuse, to prevent accidents, and to shoot to incapacitate, not to kill. Further, they could be armed with nonlethal weapons, such as rubber bullets.²¹⁵

This is not to say that robotic weapons will never misfire. Accidents have occurred, and they will continue to occur. In 2007, for example, a “semiautonomous robotic cannon deployed by the South African army malfunctioned, killing 9 soldiers and wounding 14 others. . . .”²¹⁶ Nonetheless, it seems likely that the risk of accidental harm from a robot malfunctioning is less than that of a person erring with a firearm,²¹⁷ especially when considering that each iteration of robotic weapons reduces the risk of malfunction.

On a final note, some may question whether *Heller* forecloses using prudential arguments to define arms.²¹⁸ Though recognizing “the problem of handgun violence in this country,”²¹⁹ *Heller* declared this problem irrelevant to interpreting the Second Amendment.²²⁰

In spite of this, prudential arguments may still play a role in interpreting the Second Amendment. *Heller* rejected prudential arguments because they could not compel an interpretation wholly incompatible with the right of armed self-defense—an interpretation that would strip people of the right to own handguns, the preferred self-defense weapon. But perhaps prudence can corroborate an interpretation *compatible* with this right.²²¹ Whereas restricting the right to own handguns weakens one’s ability to defend oneself, allowing people to possess robots strengthens it.²²² The Court may be more receptive to

many handgun owners reported being involved in a gun accident as reported using the gun in self-defense”).

215. See *supra* notes 47, 69-70, and accompanying text.

216. WALLACH & ALLEN, *supra* note 124, at 4.

217. Cf. *infra* note 242 and accompanying text.

218. See Blocher, *supra* note 10, at 28-29.

219. *Heller*, 554 U.S. at 636.

220. See Dorf, *supra* note 214, at 231 (“[T]he *Heller* majority does not credit the policy arguments against gun control over the policy argument in favor of gun control; it casts them aside as irrelevant.”); see also *Heller*, 554 U.S. at 636 (“The Constitution leaves the District of Columbia a variety of tools for combating that problem, including some measures regulating handguns. But the enshrinement of constitutional rights necessarily takes certain policy choices off the table.”) (citations omitted); Blocher, *supra* note 10, at 28-29.

221. But cf. Blocher, *supra* note 10, at 28-29 (“[W]hether a person believes [these studies] or not should presumably be irrelevant—the Second Amendment is meant to constitutionally mandate skepticism about public safety arguments, whether in support of gun ownership or against it.”) (footnote omitted).

222. Cf. *supra* notes 179-184 and accompanying text (discussing Americans’ increasing incompetency with guns).

such prudential arguments that strengthen, rather than subvert, the Second Amendment's core right.

IV. AN AUXILIARY RIGHT TO ROBOTS

Even if robots are not arms—whether it is because they are categorically ineligible as a non-wearable weapon²²³ or not yet in common use²²⁴—they still may be entitled to protection under the Second Amendment's penumbra, as an auxiliary right. Such rights exist to “ensure that the core right is genuinely protected,” that the right is “practicable in the real world.”²²⁵ Auxiliary rights under the Second Amendment protect the core right of self-defense.²²⁶ Examples of these auxiliary rights include the right to buy bullets and the right to transport them from store to home, because the right to possess a firearm for self-defense means little when it does not include the right to buy bullets or carry the gun home.²²⁷

The Seventh Circuit Court of Appeals recently employed this theory of auxiliary rights in *Ezell v. Chicago*.²²⁸ There, the court considered whether the Second Amendment prevents the government from banning firing ranges—an activity that is not self-defense in itself, but instead furthers one's ability to defend herself.²²⁹ The court held affirmatively:

223. See *supra* Part III.

224. See *supra* Part II.B.2.

225. Glenn Harlan Reynolds, Essay, *Second Amendment Penumbra: Some Preliminary Observations*, 85 S. CAL. L. REV. 247, 248-49 (2012) (introducing penumbra rights in the context of the Second Amendment and analogizing to the First Amendment). Auxiliary rights are not unique to the Second Amendment. In the First Amendment, for example, auxiliary rights include the right to be free of discriminatory taxes and licensing schemes of news racks. *Id.* at 251 (citing *Grosjean v. Am. Press Co.*, 297 U.S. 233 (1936)); see *Minneapolis Star Tribune Co. v. Comm'r*, 460 U.S. 575 (1983); see also *City of Lakewood v. Plain Dealer Publ'g Co.*, 486 U.S. 750 (1988).

226. See Reynolds, *supra* note 225, at 248-51, 257 (stating that “*Ezell* demonstrates that the Second Amendment's right to arms extends significantly beyond the simple aspect of self-defense in the home”); see also *Ezell v. City of Chicago*, 651 F.3d 684, 689, 700-01, 704 (7th Cir. 2011) (“*Heller* held that the Amendment secures an individual right to keep and bear arms, the core component of which is the right to possess operable firearms—handguns included—for self-defense, most notably in the home.”); *supra* Part III.B.2.

227. See Reynolds, *supra* note 225, at 249 (stating that Second Amendment auxiliary rights would include, for example, “the right to buy firearms and ammunition, the right to transport them between gun stores, one's home, and such other places—such as gunsmith shops, shooting ranges, and the like—that are a natural and reasonable part of firearms ownership and proficiency”).

228. See *id.* (“*Ezell* demonstrates that the Second Amendment's right to arms extends significantly beyond the simple aspect of self-defense in the home.”).

229. See *Ezell*, 651 F.3d at 690, 704 (“[P]laintiffs contend that the Second Amendment protects the right to maintain proficiency in firearm use—including the right to practice marksmanship at a range. . .”).

the Second Amendment provides the right to range training, even though it is neither an arm nor part of the Amendment's core right.²³⁰ In effect, the court reasoned that the core right "implies a corresponding right to acquire and maintain proficiency in their use"²³¹ Not recognizing this "corresponding right," or auxiliary right, would vitiate the core right.²³²

Ezell thus demonstrates that recognizing an auxiliary right for an activity or object requires that it further one's ability to exercise the core right of self-defense.²³³ The activity or object need not be essential—one does not *need* firearm range training to defend oneself with a firearm—but it should at least be reasonably necessary.

Perhaps certain robots can satisfy this necessity requirement for auxiliary rights. For example, robots that employ an already constitutionally protected weapon, such as a 9mm pistol located in a bedroom dresser. Here, an auxiliary right would be grounded on modern people's incompetency with guns, which effectively deprives them of their right of armed self-defense.²³⁴ In essence, it would be an auxiliary right to employ an armed bodyguard, whether human or mechanical.

Courts have not opined on the merits of an auxiliary right to employ a bodyguard. But some evidence suggests that such a right exists. Notably, a federal statute prohibits convicted felons from owning firearms,²³⁵ and federal courts have interpreted it as also barring them from employing armed bodyguards who operate under the felon's control.²³⁶ Felons have limited, if any, Second Amendment rights.²³⁷

230. *See id.* at 704-11.

231. *Id.* at 704 (citing a discussion in *Heller* quoting Thomas Cooley: "[T]o bear arms implies something more than the mere keeping; it implies the learning to handle and use them") (alteration in original).

232. *See id.* (stating that "the core right wouldn't mean much without the training and practice that make it effective").

233. *See Reynolds, supra* note 225, at 257 (stressing the importance of the right of self-defense to recognizing an auxiliary right).

234. *See supra* notes 179-184 and accompanying text.

235. *See* 18 U.S.C. § 922(g)-(h) (2006 & Supp. 2012).

236. *See United States v. Weaver*, 659 F.3d 353, 357 (4th Cir. 2011) ("Viewed in light of § 922(g), the purpose of § 922(h) is apparent: it is meant to prevent the individuals listed in sub-section (g) from circumventing the firearm prohibition by employing armed bodyguards."); *United States v. Weaver*, No. 2:09-cr-00222, 2012 WL 727488, at *6 (S.D.W. Va. Mar. 6, 2012); *see also* 18 U.S.C. § 922(g)-(h); Eugene Volokh, *District Court Concludes Second Amendment Secures Right to Carry, But Not "While Being Employed for" a Felon*, THE VOLOKH CONSPIRACY (Mar. 7, 2012, 2:25 PM), <http://bit.ly/YEOXKB>.

237. *See Heller*, 554 U.S. at 626 (stating that "nothing in our opinion should be taken to cast doubt on longstanding prohibitions on the possession of firearms by felons"); *United States v. Chester*, 628 F.3d 673, 680-81 (4th Cir. 2010) (stating that "it appears to us that the historical data is not conclusive on the question of whether the founding era understanding was that the Second Amendment did not apply to felons"); *United States v.*

Thus, it does not violate their Second Amendment right when Congress bans them from owning firearms. But to make this ban effective—to fully curb their right to arms—Congress must not only strip firearms from their possession but also “strip[] firearms from their control.”²³⁸ Perhaps the inverse of this reasoning suggests that law-abiding citizens with full Second Amendment rights have the right to both possess and control weapons, which includes the right to employ a bodyguard operating under the person’s control.

V. CONCLUSION

None of this article proves that robots are arms, or even that they will be arms. This article does not intend to prove such things. Rather, it intends to ignite a discussion on this very real question²³⁹ by demonstrating the very real possibility of robots being arms under current Second Amendment doctrine.

We should not be afraid of this possibility. Robots will change, and are changing, how our society functions at a fundamental level. Autonomous cars, for instance, remove the person from the driver’s seat, a position where he has resided for over 100 years. These cars already drive through our streets,²⁴⁰ and some states are updating their licensing laws accordingly.²⁴¹ Many expect these autonomous cars to improve automobile safety dramatically.²⁴²

Williams, 616 F.3d 685, 692 (7th Cir. 2010) (stating that “[t]he academic writing on the subject of whether felons were excluded from firearm possession at the time of the founding ‘is inconclusive at best’”); see also *United States v. Skoien*, 614 F.3d 638, 650–51 (7th Cir. 2010) (Sykes, J., dissenting); *United States v. McCane*, 573 F.3d 1037, 1048 (10th Cir. 2009) (Tymkovich, J., concurring).

238. See *Weaver*, 2012 WL 727488, at *8; see also *Weaver*, 659 F.3d at 357.

239. See *supra* note 5 and accompanying text.

240. See CNN Wire Staff, *Google Gets License to Operate Driverless Cars in Nevada*, CNN (May 8, 2012, 11:30 AM), <http://bit.ly/IJNWvj>.

241. See *id.*; see also *Autonomous Vehicles*, NEV. DEP’T OF MOTOR VEHICLES, <http://bit.ly/K8QqVs> (last visited Feb. 6, 2013).

242. See, e.g., KURT DRESNER & PETER STONE, *MITIGATING CATASTROPHIC FAILURE AT INTERSECTIONS OF AUTONOMOUS VEHICLES* (2008), available at <http://bit.ly/YUL7Rq> (stating that “[f]ully autonomous vehicles promise enormous gains in safety . . . for transportation” and that “even if each accident were substantially worse, overall autonomous vehicles would represent an improvement in safety over the current situation”); Sebastian Thrun, *What We’re Driving At*, OFFICIAL GOOGLE BLOG (Oct. 9, 2010), <http://bit.ly/aje7Sw> (“According to the World Health Organization, more than 1.2 million lives are lost every year in road traffic accidents. We believe our technology has the potential to cut that number, perhaps by as much as half.”); Chris Urmson, *The Self-Driving Car Logs More Miles on New Wheels*, OFFICIAL GOOGLE BLOG (Aug. 7, 2012), <http://bit.ly/OJBHii> (stating that Google’s self-driving cars have “completed more than 300,000 miles of testing . . . and there hasn’t been a single accident under computer control”); Rebecca J. Rosen, *Google’s Self-Driving Cars: 300,000 Miles Logged, Not a*

Robotic weapons are on a similar cusp as autonomous cars. We should react to this innovation not by banning them, but by examining methods to make them safer. For example, maybe production should be regulated to ensure the robots are sufficiently discriminating and pose little risk of malfunction.²⁴³

Robotic weapons have the potential to become America's new preferred self-defense weapon.²⁴⁴ If that occurs, *Heller* suggests they are arms and entitled to constitutional protection, and nothing in the Second Amendment's history forecloses that reading.

Single Accident Under Computer Control, THE ATLANTIC (Aug. 9, 2012, 12:29 PM), <http://bit.ly/MC544k>.

243. Cf. Calo, *supra* note 30, at 608-09, 609 n.253. Nevada regulates autonomous cars in a similar manner. See *Autonomous Vehicles*, *supra* note 241 ("Manufacturers, software developers and others interested in testing their vehicles in Nevada must submit an application to the Department along with proof that one or more of your autonomous vehicles have been driven for a combined minimum of at least 10,000 miles, a complete description of your autonomous technology, a detailed safety plan, and your plan for hiring and training your test drivers.").

244. Cf. *Heller*, 554 U.S. at 624, 629 (finding handguns protected by the Second Amendment because they are "the most popular weapon chosen by Americans for self-defense in the home").

APPENDIX A: BEAR

Tench Coxe: “As civil rulers, not having their duty to the people duly before them, may attempt to tyrannize, and as the military forces which must be occasionally raised to defend our country, might pervert their power to the injury of their fellow citizens, the people are confirmed by the next article in their right to keep and bear their private arms.”²⁴⁵

Richard Henry Lee: “Should one fifth or one eighth part of the men capable of bearing arms, be made a select militia, as has been proposed, and those the young and ardent part of the community, possessed of but little or no property, and all the others put upon a plan that will render them of no importance, the former will answer all the purposes of an army, while the latter will be defenseless.”²⁴⁶

Declaration of Independence: “He has constrained our fellow-citizens, taken captive on the high seas, to bear arms against their country, to become the executioners of their friends and brethren, or to fall themselves by their hands.”²⁴⁷

Ratification of the Constitution by the State of New York: “That the People have a right to keep and bear Arms; that a well regulated Militia, including the body of the People capable of bearing Arms, is the proper, natural and safe defence of a free state. . . .”²⁴⁸

Ratification of the Constitution by the State of North Carolina: “That the people have a right to bear arms for the defense of themselves and the state; and as standing armies in the time of peace are dangerous to liberty, they ought not to be kept up; And that the military should be kept under strict subordination to, and governed by, the civil power.”²⁴⁹

Ratification of the Constitution by the State of Pennsylvania, dissenting minority: “That the people have a right to bear arms for the

245. See A Pennsylvanian (Tench Coxe), *Remarks on the First Part of the Amendments to the Federal Constitution*, PHILA. FED. GAZETTE, June 18, 1789, at 2.

246. Richard Henry Lee, *Letters of a Federal Farmer (1787–88)*, in PAMPHLETS ON THE CONSTITUTION OF THE UNITED STATES 305–06 (P. Ford ed., 1888); see Rakove, *supra* note 210, at 144 (arguing that Richard Henry Lee did not author the *Letters of a Federal Farmer*).

247. THE DECLARATION OF INDEPENDENCE para. 29 (U.S. 1776).

248. 2 DOCUMENTARY HISTORY OF THE CONSTITUTION 191 (1894).

249. FRANCIS NEWTON THORPE, THE FEDERAL AND STATE CONSTITUTIONS, COLONIAL CHARTERS, AND OTHER ORGANIC LAWS OF THE STATES, TERRITORIES AND COLONIES NOW OR HERETOFORE FORMING THE UNITED STATES OF AMERICA 3083 (F. Thorpe ed., 1909).

defense of themselves and their own state, or the United States, or for the purpose of killing game. . . .²⁵⁰

Ratification of the Constitution by the State of Virginia: “That any person religiously scrupulous of bearing arms ought to be exempted, upon payment of an equivalent to employ another to bear arms in his stead.”²⁵¹

Thomas Jefferson: “If, then, France has invaded Spain, an insurrection immediately takes place in Paris, the Royal family is sent to the Temple, then perhaps to the Guillotine; to the 2 or 300,000 men able to bear arms in Paris will flock all the young men of the nation.”²⁵²

James Madison: “The right of the people to keep and bear arms shall not be infringed; a well armed, and well regulated militia being the best security of a free country: but no person religiously scrupulous of bearing arms shall be compelled to render military service in person.”²⁵³

Thomas Pownall: “Let therefore every man, that, appealing to his own heart, feels the least spark of virtue or freedom there, think that it is an honour which he owes himself, and a duty which he owes his country, to bear arms.”²⁵⁴

Williamsburgh, Massachusetts, citizens: “Voted that these words their Own be inserted which makes it read thus; that the people have a right to keep and to bear Arms for their Own and the Common defence.”²⁵⁵

250. 2 THE DOCUMENTARY HISTORY OF THE RATIFICATION OF THE CONSTITUTION 597-98, 623-24 (Merrill Jensen ed., 1976); see Rakove, *supra* note 210, at 135 (questioning the probative value of this statement).

251. 3 THE DEBATES IN THE SEVERAL STATE CONVENTIONS ON THE ADOPTION OF THE FEDERAL CONSTITUTION, *supra* note 203, at 659.

252. Letter from Thomas Jefferson to William Short (Mar. 28, 1823).

253. 1 ANNALS OF CONG. 434 (June 8, 1789).

254. Lawrence Delbert Cress, *An Armed Community: The Origins and Meaning of the Right to Bear Arms*, 71 J. AM. HIST. 22 (1984).

255. THE POPULAR SOURCES OF POLITICAL AUTHORITY: DOCUMENTS ON THE MASSACHUSETTS CONSTITUTION OF 1780 624 (O. Handlin & M. Handlin eds., 1966).

APPENDIX B: ARMS

Joel Barlow: "That the people will be universally armed: they will assume those weapons for security, which the art of war has invented for destruction."²⁵⁶

Boston Newspaper: "It is a natural right which the people have reserved to themselves, confirmed by the Bill of Rights, to keep arms for their own defence; and as Mr. Blackstone observes, it is to be made use of when the sanctions of society and law are found insufficient to restrain the violence of oppression."²⁵⁷

English Bill of Rights: "The Lords declared: 'For the vindicating and asserting their ancient rights and liberties . . . [t]hat the subjects, which are protestants, may have arms for their defense suitable to their conditions and as allowed by law.'"²⁵⁸

Thomas Jefferson: "The strongest reason for people to retain the right to keep and bear arms is, as a last resort, to protect themselves against tyranny in government."²⁵⁹

Richard Henry Lee: "[T]he yeomanry of the country [who] possess the lands, the weight of property, possess arms, and are too strong a body of men to be openly offended . . . may in twenty or thirty years be by means imperceptible to them, totally deprived of that boasted weight and strength. . . ."²⁶⁰

Ratification of the Constitution by the State of Virginia: "A well-regulated militia, composed of the body of the people, trained to arms, is the proper, natural, and safe defence of a free State."²⁶¹

See also quotations in Appendix A.

256. J. BARLOW, *ADVICE TO THE PRIVILEGED ORDERS IN THE SEVERAL STATES OF EUROPE, RESULTING FROM THE NECESSITY AND PROPRIETY OF A GENERAL REVOLUTION IN THE PRINCIPLE OF GOVERNMENT* 91 (1792).

257. *A Journal of the Times*, Mar. 27, 1769, in *BOSTON EVENING-POST*, May 25, 1769.

258. 1 W. & M., sess. 2, ch. 2 (1689).

259. THOMAS JEFFERSON PAPERS 334 (C.J. Boyd ed., 1950).

260. LETTERS FROM THE FEDERAL FARMER TO THE REPUBLICAN 21 (W. Bennet ed., 1978); see Rakove, *supra* note 210, at 144 (arguing that Richard Henry Lee did not author the *Letters of a Federal Farmer*).

261. 3 THE DEBATES IN THE SEVERAL STATE CONVENTIONS OF THE ADOPTION OF THE FEDERAL CONSTITUTION, *supra* note 203, at 659.