

2017

# Introducing STS Scholarship to the Gun Policy Debate in United States Society

Caroline Skinner  
*Scripps College*

---

## Recommended Citation

Skinner, Caroline, "Introducing STS Scholarship to the Gun Policy Debate in United States Society" (2017). *Scripps Senior Theses*. 1015.  
[http://scholarship.claremont.edu/scripps\\_theses/1015](http://scholarship.claremont.edu/scripps_theses/1015)

This Open Access Senior Thesis is brought to you for free and open access by the Scripps Student Scholarship at Scholarship @ Claremont. It has been accepted for inclusion in Scripps Senior Theses by an authorized administrator of Scholarship @ Claremont. For more information, please contact [scholarship@cuc.claremont.edu](mailto:scholarship@cuc.claremont.edu).

INTRODUCING STS SCHOLARSHIP TO THE GUN POLICY DEBATE  
IN UNITED STATES SOCIETY

By Caroline Skinner



## Acknowledgements

I would like to start out by thanking everyone involved with the Science, Technology & Society and Legal Studies programs at the Claremont Colleges. Without the help of the faculty, my peers, and the wonderful classes I have taken during my time here, this thesis would not have been possible. The classes I have taken for both of my majors influenced not only this project, but also challenged me academically, helped me grow as a person, and expanded my interests and perspective. I would especially like to thank my reader, Richard Worthington, who's guidance and expertise has been beyond invaluable throughout this entire process—thank you for taking a chance on a student who you had never had before, and for helping my vision become a reality. I am also incredibly grateful for Jen Groscup, who was not only my second reader, but also my teacher and advisor throughout my time at Scripps. Thank you for your advice and mentorship not only on my thesis, but also over the past 4 years. It was you and your Core II class that first inspired me to consider a career in law, and I am beyond thankful for that. To my friends, who have been the greatest influences on me throughout my college journey: I cannot thank you enough. I am the luckiest person in the world to have met each and every one of you. Lastly, I would like to thank my family, who have given me the most incredible opportunities and supported me unconditionally for the last 21 years of my life—Mom, Dad & Charlotte, you are so appreciated and loved. Thank you for being the best role models I could ask for, and for guiding me to where I am today. Without you, truly none of this would have been possible.

## TABLE OF CONTENTS

I.	<u>Abstract</u> .....	5
II.	<u>Introduction</u> .....	6
III.	<u>Legal History/Background</u> .....	11
IV.	<u>Applying STS theories to Gun Policy Issues Part 1: Deconstructing Assumptions about the Gun-User Relationship</u> .....	19
	<i>Technological Agency, and the role of guns in the crimes they are used for</i>	
	<i>Technological Somnambulism, and the misconception that users are in control</i>	
V.	<u>Applying STS theories to Gun Policy Issues Part 2: Assault Weapons and Policy Recommendations in Light of an STS Analysis</u> .....	32
	<i>Recommendations for Policy Reformation Outside of Assault Weapons</i>	
	<i>What Are Assault Weapons and How Do They Fit Into the U.S. Legal Framework?</i>	
	<i>Introducing STS in order to Re-conceptualizing Assault Weapons Through an Actor Network</i>	
	<i>Actors, Observations, and Connections Identified Through the Application of the ANT to Assault Weapons</i>	
	<i>Government, Legislators, and Other Actors that Destabilize The Legal Definition of Assault Weapons</i>	
	<i>How the Destabilized Definition of Assault Weapons Acts as a Blockade to Policy Implementation and Effectiveness</i>	
VI.	<u>Conclusion</u> .....	46
VII.	<u>Works Cited</u> .....	51

— Abstract —

The following thesis will merge the field of legal studies with the field of Science, Technology, and Society, and will focus on issues surrounding the gun control debate. The goal is to ultimately bring new light to this hot-button legal topic through the use of STS scholarship. STS tools and theories, which have previously been absent from most gun control discussions, have much to contribute to the discourse in terms of motivating the need for gun control, fully understanding the user-gun relationship, breaking down misconceptions about the technology and its role in society, and further understanding the complex societal network within which guns exist in America. This will begin first with a discussion of the legal history and background of firearms in the United States, and will be followed by an STS analysis of technological agency and somnambulism as they can be applied to guns. Following this, the Actor Network in which firearms in America are imbedded will be explored, in order to better understand why they have been so difficult to regulate. Although this thesis will be heavily policy and law-focused, the aim is not to propose any specific new policy, but instead to use STS to conceptualize gun issues from a new perspective that will allow misconceptions and blockades to be confronted head-on.

**Keywords:** Actor Network Theory, Gun Control, Gun Policy, Science Technology and Society, Technological Agency, Technological Somnambulism, Assault Weapon Policy

— Introduction —

As gun violence becomes an increasingly topical issue in the United States, the debate regarding gun control grows proportionately more heated. Liberal, pro-gun control advocates push for reform with renewed vigor with each mass shooting, while conservative, gun control opponents push back equally hard, citing their Second Amendment rights. Oftentimes, these anti-gun control supporters argue that restricting guns will only make the good, law-abiding citizens less safe and unable to protect themselves, while the law-breaking criminals will have no regard for the new restrictions, and thus will be the only ones left with firearms.<sup>1</sup> Studies have been conducted demonstrating results that align with both ends of the bi-partisan spectrum. Some studies will argue that gun control will be ineffectual at best, and at worst only make our gun violence issues worse, while other studies conclude the exact opposite, pointing to increased gun-control being the only method

---

<sup>1</sup> Stell, L. K. (2004), "The Production of Criminal Violence in America: Is Strict Gun Control the Solution?." *The Journal of Law, Medicine & Ethics*, 32: 38–46. doi:10.1111/j.1748-720X.2004.tb00447. This article does not argue *for* a certain type of gun control, but rather argues against a specific type: strict gun control. A main point this article mentions is the futility of banning of guns, specifically handguns, among the general population, stating that limiting their ownership by citizens will not help solve homicide and violence rates in the U.S. Stell argues that it would be immoral and reckless to allow the State to own all the firearms while depriving the citizens of having any, because this gives a dangerous amount of power in the state's hands. He argues it is a moral right of the people to own firearms and not have this limited by the State, in case the state ever oversteps their boundaries and civilians need means of protecting themselves.

that can prevent further gun violence.<sup>2</sup> This issue has become extremely bipartisan and heated, as many hot-button topics have likewise become in today's polarized political landscape. The two-party system has only augmented political tensions and fostered discord in the United States, leading to a suppression of dialogue as individuals continue to villainize their opponents.<sup>3</sup> This phenomenon has made it difficult to have productive dialogues or reach solutions that both parties would consider and agree with, particularly pertaining to gun control.

Gun culture, as it is often labeled as, has always been deeply ingrained not only in U.S. society, but also in legislation.<sup>4</sup> In his article *Gun Ownership and Gun Culture in the United States*, author Michael Kocsis addresses the societally ingrained gun culture that has developed in the U.S. since the founding of the country. Because the right to own a firearm was written into the founding document of the country, it seems almost as if the entitlement some U.S. citizens feel towards their firearm rights is irreversible. Kocsis calls into question what this embedded right and liberty has *come* to mean, as well as

---

<sup>2</sup> Wintemute, Garen J. et al. "Gun Shows and Gun Violence: Fatally Flawed Study Yields Misleading Results." *American Journal of Public Health* 100.10 (2010): 1856–1860. PMC. Web. 17 Dec. 2016.

<sup>3</sup> Campbell, James E. "The Source of America's Political Polarization? It's Us." *Los Angeles Times*. Los Angeles Times, 30 June 2016. Web. 20 Mar. 2017.

<sup>4</sup> Kocsis, Michael (2015) "Gun Ownership and Gun Culture in the United States of America," *Essays in Philosophy*: Vol. 16: Iss. 2, Article 2. Kocsis examines the following questions: If the second amendment was put in place in order to protect citizens, but it has now morphed into something that is used to harm more often than keep safe, does this invalidate the original intent and thus validity of that right? Does this right still apply centuries later, when we are no longer in a time of revolution or revolt?

what it perhaps *should* mean in the modern society.<sup>5</sup> He also addresses an argument that has not gained as much traction and publicity as others in the gun control dispute, which is the speculation that freedom and liberty may only be reached when society is able to ensure the safety of the public from deadly firearms. This, however, is just one of many cases being made both for and against gun control legislation, which has become the center of many American political debates. Policy progress in many states is at a standstill, while in others it is rendered ineffectual through the exploitation of loopholes and other complications. Cross-party compromise has become virtually non-existent regarding firearm regulation, which has only hindered the legislative process even further.

### **How the Field of Science, Technology, and Society Can Help in Finding a Solution to this Policy Problem**

Entangled within the complex web of gun issues are legal procedures, ratified policies, and political powers that each pose their own obstacles to progress. Understanding and overcoming these is vital to making progress in gun policy, so an overview of these procedures and policies will be briefly included in the following discussion. Yet, there are further impediments on progress that are less obvious from the legal and legislative perspectives—these will be uncovered and analyzed using STS analysis tools and strategies. The field of STS examines how societal factors, such as culture and politics,

---

<sup>5</sup> Kocsis, 2015.

affect the formation of science and development of technology. Furthermore, it focuses on understanding how science, technology, and society, interconnect and shape one another. Those involved in the gun policy debate often make assumptions about guns without fully deconstructing them or critically analyzing them as a technology, which is precisely why the incorporation of STS is crucial.

STS tools and theories are both necessary and incredibly beneficial when performing examinations such as this. There are several STS theories in particular that will be the focus of this paper: technological agency, technological somnambulism, and actor network theory, also known as ANT. The first, technological agency, will be key to motivating a need for gun policy, and proving whether or not there should be regulation of the guns themselves. The second, technological somnambulism, will be discussed in conjunction with several other of Langon Winner's—an esteemed STS scholar—related ideas. Winner's work often deals with the interactions between the user and the technology, as well as the deconstruction of assumptions regarding the user-tool relationship. Technological somnambulism refers to the concept of users "sleepwalking" throughout their interactions with technologies, and critically examines what it means when technological artifacts are only regarded as tools. By looking at these phenomena, Winner scrutinizes common suppositions that users and societies make regarding the technological artifacts they use.

Unlike the other two, which are simply theories, ANT is an actual methodology and tool. Using of a web diagram, ANT aims to identify various beings, bodies, and institutions, known as actors, and understand how they interact with and affect the technology in question.<sup>6</sup> ANT, which has not been widely utilized by either side of the gun policy debate, can help to understand what assault weapons are, if they are even definable, and why they have been so challenging to regulate. Since both the physical technology and legal definition of assault weapons seems to not be very concrete or cemented, ANT can reveal what processes and actors are contributing to this phenomenon. Likewise, applying an STS viewpoint will help to lend a new dimensional lens through which we can re-conceptualize this current policy issue.

Though STS scholars have historically applied these theories to many technologies and machines, they have yet to be applied specifically to guns within the United States. Using these theories, the proceeding chapters will be geared towards analyzing the relationships between the society, the United States, and the technology, firearms. The aim of is the utilization of STS scholarship to shed new light upon the gun and firearm policy issues that have become so topical and prevalent in the U.S. community. The objective will not be to recommend a *particular* law or set of laws, but rather to identify *areas* where firearm legislation should be changed, augmented, or created.

---

<sup>6</sup> Latour, Bruno. "On Actor-Network Theory: A Few Clarifications." *Soziale Welt*, vol. 47, no. 4, 1996, pp. 369–381., [www.jstor.org/stable/40878163](http://www.jstor.org/stable/40878163).

—Legal History/Background —

Perhaps the biggest obstacle to gun policy reform is the structure of the United States government, as well as the systems in place for enacting, changing, and removing legislation. The Constitution, as the highest law of the land, is so difficult to change that the constitutional amendment process is often seen as a futile policy change option. Unfortunately for pro-gun control advocates, the Second Amendment directly outlines the right to bear arms in its legally sacred text. In order to abolish or abridge this constitutional right, an amendment proposal would have to be passed by two thirds of both Legislative houses, or two thirds of the States legislatures would have to vote to do so by calling a convention for constitutional amendment. In today's bi-partisan political climate, this is unlikely. Firearm regulation is a topic that has become a pillar issue for both parties, with each taking a firm stance on opposing sides of the argument.

"A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed."

*Second Amendment,  
The Constitution of  
the United States  
Second Amendment*

Because of the unlikelihood of amending the constitution and overturning this right completely, many gun control advocates are not confident in this solution, and instead look to another potential method for restricting and regulating the right to firearms: judicial review. Though the Second Amendment grants the "right of the people to keep and bear Arms," it is up to the Supreme Court to determine if this pertains to everyday citizens,

and to what level firearm ownership is to be permitted and protected. Over the last several centuries, few Second Amendment cases have come before the Supreme Court, but those that have are what has defined the right to be what it is today. In 2008, the *D.C. v Heller* decision was passed by a 5-4 majority, establishing that the Second Amendment right was that of individual citizens, rather than that of militias.<sup>7</sup>

The *D.C. v Heller* case is a solid demonstration of the two opposing schools of thought regarding constitutional interpretation as it applies to the Second Amendment.<sup>8</sup> On one side there are the originalists—typically conservatives, originalists believe that the Constitution should be interpreted by the objective meaning of the words themselves at the time of ratification.<sup>9</sup> In *D.C. v Heller*, this argument is taken up by Justice Scalia, a well-known and staunch Originalist.<sup>10</sup> His majority opinion in *D.C. versus Heller* examined dictionaries that were contemporaneous with the Second Amendment in

---

<sup>7</sup> Wintemute, Garen J. et al. "Gun Shows and Gun Violence: Fatally Flawed Study Yields Misleading Results." *American Journal of Public Health* 100.10 (2010): 1856–1860. PMC. Web. 17 Dec. 2016.

<sup>8</sup> *D.C. v Heller*. U.S. Supreme Court. 26 June 2008. *Justia*. N.p., n.d. Web. 20 Oct. 2016. This was a recent landmark Supreme Court case regarding the interpretation of the Second Amendment. It has yet to be overturned, and is thus the most current ruling on this particular Second Amendment issue.

<sup>9</sup> Scalia, Antonin. "Originalism: The Lesser Evil." *University of Cincinnati Law Review* 57.3 (1989): 849-866. This text, written by Scalia himself, discusses Originalism. Scalia argues in favor of Originalism, promoting it as the best method of constitutional interpretation.

<sup>10</sup> Scalia, 852-855.

order to truly understand the verbatim meaning of the words at the time of its enactment.<sup>11</sup> Scalia did *not* believe in an evolving, living constitution that should be interpreted as changing as society becomes “increasingly enlightened” and evolved, but rather that the original meaning of the constitution must be protected. In his defense of the originalist approach to constitutional interpretation, Scalia uses the Federalist Papers. He believes that their writings display how the text of the Constitution was originally understood at the time of enactment in an intelligent and informed way. Furthermore, he believes we should interpret the constitution according to the original *text*, rather than our perceptions of the original *intent* of the drafters.

In his majority opinion, Justice Scalia looked at two clauses of the Second Amendment in particular: The first is the prefatory clause, which is the part of the text that mentions “a well regulated militia.”<sup>12</sup> The second that he focuses on is the operative clause, which refers to “the right of the people to keep and bear arms.”<sup>13</sup> Scalia asserts that the prefatory clause does *not* place limitations on the operative clause, and that the operative clause does in fact apply to the all individuals considered citizens of the United States.<sup>14</sup>

---

<sup>11</sup> D.C. v Heller, 2008.

<sup>12</sup> “Prefatory” means something that acts as the beginning or introduction to the rest of the entity, thus making a prefatory clause the clause that begins and introduces the rest of the sentence—or in this case, the rest of the Amendment.

<sup>13</sup> Operative clauses are the portion of the statement that provides solutions to problems or details that are previously mentioned in the statement. In this case, the Operative clause offers a solution to the issue brought up in the prefatory clause.

<sup>14</sup> D.C. v Heller, 2008.

Scalia argued that the wording of the operative clause, “the right of the people,” implied a pre-existing right that was to be applied to all individuals of the political state. He also took the “keep and bear arms” portion, and interpreted it—according to what he believed to be the Founder’s original intent—to mean, “to have and carry firearms.”<sup>15</sup> He argued that government denial of this right was unconstitutional, and that restrictions on civilian firearm ownership and usage were limited to very few circumstances. These exceptions were restricted to the mentally ill, felons, special locations such as schools, concealment laws, and commercial sale of firearms. In his analysis of the original textual meaning, he consulted dictionaries, interpretations by scholars, legislative and judicial sources, historical texts, and more.<sup>16</sup>

Another interpretation of the Second Amendment surfaces in the dissent written by Stevens on this same case, which does not directly oppose Scalia’s originalist viewpoint, but rather disagrees with his conclusions about the “prefactory clause.” Justice Stevens wrote one of the dissents using a historical approach, and disagreeing with Scalia by saying that what Scalia called the “prefactory clause” *did* in fact limit the second amendment protection to militias, and not to individuals.<sup>17</sup> In his dissent, he cited the Pennsylvania and Vermont Declarations of Rights—which had been expanded

---

<sup>15</sup> D.C. v Heller 2008.

<sup>16</sup> D.C. v Heller 2008.

<sup>17</sup> D.C. v Heller, 2008.

to include individual right to bear arms—pointing out that since the Second Amendment had not been expanded similarly, it did not contain an individual right.

On the other end of the spectrum from the originalists are those who believe that the Constitution is an evolving document, destined to change as society does.<sup>18</sup> In *D.C. v Heller*, this side is argued by Justice Breyer, a progressive who believed in active liberty, and that the constitution should evolve with societies changing needs, views, and values. Breyer wrote the other major dissent from a consequentialist approach (saying that we need to look at and consider the consequences of rulings and policies), arguing for the use of an Interest-Balancing test. He said that, if the Rational Basis test was applied, the D.C. Code provisions limiting the registration of firearms and calling for them to be nonfunctional and disassembled in the household was constitutional.<sup>19</sup> This is because there was a government interest to protect from high crime rates in urban areas such as D.C. He argued that the Interest-Balancing test should balance the protection interest of the Second Amendment, with the governmental interests of security and safety. In his dissent, he referenced colonial laws about regulation of firearms that were in

---

<sup>18</sup> Post, Robert C., "Theories of Constitutional Interpretation" (1990). Faculty Scholarship Series. 209.

<sup>19</sup> "Rational Basis Test." LLI Legal Information Institute. Cornell Law School, n.d. Web. The "rational basis test" is a legal term that refers to the standard test that is applied to a piece of legislation to determine its constitutionality, under the minimum level of judicial scrutiny. Unlike with strict or intermediate scrutiny, in order for the piece of legislation to be upheld under the Constitution according to the rational basis test, the law must be rationally related to achieving a legitimate government interest.

use during the time of the Second Amendment enactment, in order to prove that the second amendment *does* allow for government regulation of individual civilian firearm ownership and use. Originalists are critical of this progressive and flexible interpretation of the constitution, because they argue that it grants the court unchecked power that it was not initially supposed to have. According to them, the constitution is supposed to be the law of the land, and giving the court such control over its interpretation allows it to override the original text at the time of ratification.<sup>20</sup>

The *D.C. v Heller* decision—in which Scalia’s originalist interpretation prevailed—set the precedent that the Second Amendment was an individual right to bear arms, rather than the right of a government militia. Scalia argued that the wording of the operative clause, “the right of the people,” implied a pre-existing right that was to be applied to all individuals of the political state. He also took the “keep and bear arms,” and analyzed it, according to what he believed to be the original meaning, to mean literally, “to have and carry firearms.” This decision was decidedly against the aims of gun-control advocates, therefore making judicial review another path through which they have been unsuccessful thus far.

Another consideration that must be made when discussing the Second Amendment, is how much “arms” have changed since the Second Amendment was enacted. Although we still use the same term, “gun,” it is clear that the technology has evolved, perhaps drastically enough to be considered a new

---

<sup>20</sup> Scalia, 851-853.

machine entirely. This is particularly prevalent in the discussion of Assault Weapons, which—despite being widely used in mass shootings and massacres—share very few characteristics with the firearms referred to in the Second Amendment. With rapid-firing capabilities, large magazines, and advanced reload and shooting abilities, assault weapons are machines that are practically incomparable to the firearms of the 18<sup>th</sup> Century, which took much more effort and time to shoot even a single bullet.

This is an idea that has been explored by pro-gun control group States United to Prevent Gun Violence, in an ad they ran in 2013.<sup>21</sup> In the ad, a shooter enters an office to commit a mass shooting—a story that has become all too familiar in the past several years. This time, however, the weapon he is using is a firearm that is contemporaneous to the enactment of the Second Amendment: a musket. Missing his mark on the first shot, due to the inaccuracy of the gun technology from that era, he starts to reload the weapon. By the time he has even begun this long and tenuous process, the entire office has evacuated to safety. The main message conveyed by the ad is then made all the more obvious, as it is displayed in text across the screen that reads, “Guns have changed. Shouldn’t our gun laws?” This is one of the only arguments used in the gun-control debate that actually hones in and focuses directly on the technology itself. Oftentimes, the debate centers around the language used in gun legislation, the validity of Second Amendment rights in a

---

<sup>21</sup> Ed—A Petition For Stronger Gun Laws. *States United to Prevent Gun Violence*. N.p., n.d. Web. 1 Apr. 2017. <<https://www.youtube.com/watch?v=LORVfnFtcH0>>.

changed and modern society, the effectiveness of suggested legislation, the supposed futility of a ban on guns, and other arguments that often fail to analyze and consider the technology itself.<sup>22</sup>

STS scholarship, having the tools to do exactly that, is precisely what is needed to fill this gap in the gun control debate. Starting from a more macroscopic application, STS can be applied to guns as a technology and used to prove a general need for gun control, as well as point to problems that the technology of guns creates in United States society. Following this, the STS Actor Network Theory can be applied on a more microscopic level, to look specifically at assault weapons as a technology. By doing so, it will be made clear that these weapons are another machine entirely from 18<sup>th</sup> century firearms that were originally referred to in the Second Amendment. Furthermore, the issues and complexities that assault weapons pose in American society can be broken down and revealed through these STS tools.

---

<sup>22</sup> "Gun Control - ProCon.org." *Should More Gun Control Laws Be Enacted in the United States?* ProCon.org, n.d. Web. 2 Apr. 2017. <<http://gun-control.procon.org/>>.

— Applying STS theories to Gun Policy Issues Part I—

*Deconstructing Assumptions about the Gun-User Relationship*

As a field, Science, Technology, and Society (STS) creates tool that enables scholars to examine and study the relationship between society/communities and technologies/scientific practices. By studying the mutual affects and interactions between these entities, STS scholars reveal how culture, social norms, politics, and other aspects of human society are shaped by—and, in turn, shape—technological innovations and scientific research. Over the years, experts in the field of Science, Technology and Society have worked to develop conceptual tools and theories that are able to be utilized in the investigation of technological artifacts, their “human-ness,” and the ways in which they contain and manifest human intent into their actual construction and being. These very tools can be applied to guns, in order to examine the technology from an STS viewpoint. By doing so, the human-gun relationship and the guns themselves can be further scrutinized, revealing what this means both for guns and for society as a whole.

**Technological Agency, and the role of guns in the crimes they are used for**

In recent years, civilian and mass shootings have become frighteningly common occurrences in the United States, appearing in the media and news with alarming frequency. This American “gun culture” is a phenomenon that

puzzles and alarms many other Western societies.<sup>23</sup> Compared to Western European countries, the U.S. is a world leader in gun violence—it ranks number one in non-police and non-military civilian gun deaths.<sup>24</sup> This trend has only continued to grow as the issue has become more pressing and relevant. Regarding the issue of gun violence in the United States, one philosophical argument is repeatedly made in defense of gun rights, which is the following: “guns don’t kill people, people kill people.” While this statement may have some validity, as a gun itself cannot commit murder without human action being involved, it also fails to recognize or acknowledge the potential technological agency that guns have in the crimes they are utilized for. As the gun debate has been politically and policy focused, there has been little work done to address this broader philosophical and epistemological problem. Using STS tools can help determine whether or not guns themselves have technological agency.

In motivating the argument and proving the need for increased gun policy in the United States, it is vital to prove the culpability of the gun itself in the crimes it is used to commit—until it can be shown that they do, many will continue to justify lenient gun control policies in the United States. While

---

<sup>23</sup> Müller, Vincent C. (2015). “Gun Control: A European Perspective.” *Essays in Philosophy* 16 (2):247-261. This text an article written by a German philosophy professor, and applies a European perspective to a rampant American phenomenon—gun violence and subsequent gun control. Gun violence is exponentially less of a problem in European countries than it is here in the U.S., and other countries that don’t share our constitutional background or policy on firearms often view our lack of gun control quizzically

<sup>24</sup> Kelto, Anders. "The U.S. Is A World Leader In Gun Deaths." *NPR*. NPR, 7 Dec. 2015. Web. 10 Oct. 2016.

violent crime can certainly occur between citizens without the use of guns, they undoubtedly increase the scale and magnitude of damage that can be inflicted. Although it is a human that pulls the trigger—which acts as an input—it is ultimately the gun that releases the bullet—which likewise acts as the output—and therefore it cannot be a neutral tool that exists without any sort of moral agency or culpability. This theory of technological intentionality as tied to technological functionality is put forth by Johnson and Powers in their paper *Ethics and Technology*. Johnson and Powers liken the usage of technological artifacts to that of a mathematical function, saying that a working artifact used in context only has a single, specific output that can occur.<sup>25</sup> These researchers go on to discuss how functions are constructed into the artifacts themselves, both in their design and their usage.

In their paper, Johnson and Powers argue that, “When designers design artifacts, they poise them to behave in certain ways. Those artifacts *remain* poised to behave in those ways. They are designed to produce unique outputs when they receive inputs.”<sup>26</sup> In the case of guns, this output is always meant to be the firing of a bullet and the subsequent harming of a target. Guns are not naturally occurring objects, such as a rock or a stick. It may seem tempting to claim that objects are neutral by nature and therefore cannot be political or

---

<sup>25</sup> Johnson, Deborah G., and Thomas M. Powers. "Ethics and Technology: A Program for Future Research." *Society, Ethics, and Technology*. By Morton Emanuel. Winston and Ralph Edelbach. Belmont, CA.: Wadsworth, 2000. 156-66. Print.

<sup>26</sup> Johnson and Powers, 155.

moral, but this is not the case for all things.<sup>27</sup> As discussed by Winner in his work *The Whale and the Reactor*, “human ends are powerfully transformed as they are adapted to technical means,” meaning that, although humans may be capable of an action without the use of a technology, the utilization of a technology fundamentally does change the action and result taken by the user.<sup>28</sup> Rocks and sticks could also be used for violent purposes, just as guns can, but likewise can also be used to provide shelter, safety, or for a multitude of other purposes. Guns, however, only have one objective and intended output in response to their contextual input. Humans created guns, and therefore guns have the intentions they were built with molded into their very physical nature and design, even long after their design is complete or they are not in active use.<sup>29</sup> It is these residing intentions and functions that make their ultimate actions possible. A gun is built exclusively to harm or kill, which is its ultimate action, and this is a key fact that we cannot ignore when discussing their technological agency.

A potential counterargument to this would be that guns can be used for other things besides their intended use. For example, they could be used to prop a door open or as art on a wall. Despite having the ability to be used for

---

<sup>27</sup> Winner, Langdon. *Do Artifacts Have Politics?* 1st ed. Vol. 109. N.p.: MIT, 1980. Daedalus. *JSTOR* [JSTOR]. Web. 7 Oct. 2016.

<sup>28</sup> Winner, Langdon. *The Whale and the Reactor: A Search for Limits in an Age of High Technology*. Chicago: U of Chicago, 1992. Print.

<sup>29</sup> Johnson and Powers, 163.

other purposes, guns are still poised to complete their intended outputs no matter what they are being utilized for. Johnson and Powers address this very issue, discussing how objects can also have “novel outputs” that do not lie within their model of intended use.<sup>30</sup> This is precisely why context plays a major role in determining the output, because artifacts used *out* of context *can* have multiple outputs. These alternate uses, however, do not change the fact that the intentionality is molded into the gun through its design and construction. A gun may be being used for something other than the use its designer intended, however it can still, at any time, perform for what it was created to do—shot something.

Furthermore, as long as the construction and design is not fundamentally changed or altered so that the gun is no longer a gun, the intentionality and function with which it was constructed will remain as well. These functions may or may not be actively deployed by users at certain times, however the guns still have them molded into their physical being regardless of whether or not they are being deployed at the time. Although it may seem foreign and strange to assign moral responsibility to a technological item, it is something we must recognize with guns and other weapons equipment.<sup>31</sup>

---

<sup>30</sup> Johnson and Powers, 163.

<sup>31</sup> Peterson, Martin, and Andreas Spahn. “Can Technological Artefacts Be Moral Agents?” *Science and Engineering Ethics* 17.3 (2011): 411–424. *PMC*. Web. 27 Sept. 2016. This article discusses the moral agency of technological artifacts, the weak neutrality thesis, and the debated neutrality of inanimate objects or tools. One of the first and primary examples used in this article is that of a bomb, which, although it is obviously

Technology and human beings do not have separate, independent existences and therefore a gun cannot escape the moral responsibility of the action it is used for.<sup>32</sup> Guns, as technological artifacts, are “chunks of intentionality, externalized by artifact designers and deployed by users in particular contexts.”<sup>33</sup> Because of this, technological agency is a “complex...with human and nonhuman components,” that involves the artifact itself and its functions, the user, the designer, and the subsequent intentionality of all of these constituents.<sup>34</sup>

As also mentioned by Johnson and Powers, assigning moral responsibility to technologies, such as guns, does not serve to minimize any of the responsibility held by the human actors. Instead, it is meant to simply recognize the moral role that guns play alongside with human perpetrators in actions involving gun violence. To purport that the user is blame-free once the agency of the gun is recognized is to grossly misunderstand the complex relationship between individual responsibility and technological agency. Individual responsibility is in no way lessened by the addition of another layer of responsibility, which in this case would be the technological agency of the

---

different than a gun, has a similar nature and purpose and thus can be looked at in a comparable way when examining its technological agency.

<sup>32</sup> Verbeek, Peter-Paul. *Obstetric ultrasound and the technological mediation of morality: A post phenomenological analysis*. *Human Studies*. 2008;31:11–26. doi: 10.1007/s10746-007-9079-0.

<sup>33</sup> Johnson and Powers, 163.

<sup>34</sup> Johnson and Powers, 163.

gun. The existence of intricacy in the evaluation of the people-society-artifacts network does not serve to diminish individual responsibility. Furthermore, an individual who uses a gun does not exist independently as an island, as every human is embedded in their larger society and social world. These societal networks not only include the individual and the society, but also socially-constructed artifacts such as guns. When discussing the concept of responsibility, it is important to acknowledge these complex networks, and grant recognition to the realities of social life and the extenuating circumstances that play a role in the crimes guns are used to commit.

While not eliminating any responsibility belonging to the human users, it is critical to recognize the level of agency and intentionality that guns have as technological agency. This is particularly crucial to do within the gun debate in the United States, as oftentimes the moral responsibility is shifted completely off of the guns themselves, operating as a justification for why guns need not be regulated heavily. When the logic that “people kill people, not guns,” is applied, it enables pro-gun rights advocates to argue that regulation will be futile, because—as they argue—if no fault lies with guns themselves, what good will gun regulation do? Regulation of guns cannot be seen as a solution when *only* the people are seen as the problem.

STS scholars, such as Johnson and Powers, have been known to examine these concepts of technological agency and intentionality being built into the artifacts. When these ideas are applied to the technology of guns, it is clear that they play a role in “moral action” and contain intrinsic intentionality,

beyond the intentionality of the human users themselves. Guns are key players in the overall action that is taking place. The action, in the question of guns, would be the harming or killing of a living being. Thus far, it seems clear that guns not only have moral value by the nature of their functions and usage, but also have political value as well. Once this corollary has been drawn—between guns themselves and the actions they are utilized for—an ethical and moral case can be made on the behalf of increased gun control.<sup>35</sup> Thus, in searching for a philosophical explanation of the need for gun control, it is clear that STS tools can be used to support many of the ethics arguments used by gun control proponents.

Guns decidedly have moral responsibility and carry some of the blame for the harm they inflict; as such, it is society's obligation to regulate and monitored the usage of such weapons.<sup>36</sup> The primary questions that arise following this assertion are, what form should this regulation take, and to what extent should legislation be allowed to limit and define the right to firearms? This is where many American are split. Of those who advocate for gun control,

---

<sup>35</sup> DeGrazia, D. "The Case for Moderate Gun Control." *Kennedy Institute of Ethics Journal*, vol. 24 no. 1, 2014, pp. 1-25. *Project MUSE*, doi:10.1353/ken.2014.0003. Degrazia sets out in the premise that he will be writing this paper operating under the assumption that this is in fact a right guaranteed in both the legal and moral sense. He then proceeds to make the case for moderate gun control, while continuing to consider whether the constitutional right to firearms within the U.S. is a moral and philosophical right, rather than simply a legally guaranteed right.

<sup>36</sup> LaFollette, Hugh (2000). "Gun control." *Ethics* 110 (2):263-281. LaFollette approaches gun control from an ethical and philosophical standpoint. He examines of a multitude of gun control tactics that lie all across this spectrum, and that approach gun control carefully and step-by-step.

there is still much disagreement over what strategy would be most effective and constitutionally sound.<sup>37</sup> While some call for a complete ban, others demand a less strict policy that would uphold the Second Amendment, while also increasing regulation, creating more thorough background checks, and/or tightening licensing restrictions.<sup>38</sup> Through the STS branch of philosophy, a *need* for gun control has been established, although the specifics of such a potential policy have yet to be determined.

### **Technological Somnambulism and the Misconception that We are in Control**

Technological somnambulism, which means technological sleepwalking, is the theory that humans are complacent and unaware—thus, sleepwalking—throughout their interactions with various technologies.<sup>39</sup> Winner, who conceived of this theory in his essay *Technologies as Forms of Life*, discusses how technological somnambulism is caused by several main

---

<sup>37</sup> Criminal Justice Ethics, 20:1, 28-33, DOI: 10.1080/0731129X.2001.9992097

<sup>38</sup> Block, Walter, and Matthew Block. "Toward a Universal Libertarian Theory of Gun (Weapon) Control: A Spatial and Geographical Analysis." *Ethics, Place & Environment* 3.3 (2000): 289–298. Taylor and Francis+NEJM. Web. This article argues for the incorporation of geographical considerations and the property rights philosophy of libertarianism when approaching the issue. The authors not only look at the libertarian political philosophy as it is connected to gun control, but also at the ethical issues wrapped around the second amendment of the U.S. Constitution. They assert that it is crucial that conversations centering on U.S. gun control involve spatial, political, and geographical analyses, as this is important to drawing conclusions and finding solutions.

<sup>39</sup> Winner, Langdon. "Technologies as Forms of Life." *Ethics and Emerging Technologies* (2014): 48-60. JSTOR [JSTOR]. Web. 7 Oct. 2016.

factors. First, is the misconception that a technological artifact is the same as a simple tool, as opposed to a machine that can function on its own in a sense. As mentioned earlier, in the previous discussion regarding technological agency, a gun cannot be regarded as equivalent to naturally occurring objects and tools, such as a stick or a rock. This false belief that a gun is a simple tool, leads to further misperceptions regarding the user-gun relationship. One of these is that a tool is something humans use, and are in complete control of. This underestimation of a gun as a tool, as opposed to machine, disregards the ability of the gun to function in some way on its own, and misleads users into thinking that they are in complete control of the gun.

Another misconception is that the user's overall interaction with the "tool"—in this case the gun—starts when they are actively using and "picking up" the tool, and ends as soon as the user is done using it, or "puts it down."<sup>40</sup> The issue with this is that it trivializes the relationship between the user and the technology, making it out to be "nothing more complicated than an occasional, limited, and nonproblematic" interaction.<sup>41</sup> This is problematic for several reasons, including the fact that it fails to acknowledge that there are implications and consequences that arise from the use of a technological object, and that these endure even after the active use period has come to an end.

---

<sup>40</sup> Winner, "Technologies as Forms of Life," 104.

<sup>41</sup> Winner, "Technologies as Forms of Life," 104.

Furthermore, technological artifacts such as guns play a much larger role than simply providing utility to certain activities or actions taken by the user; in reality, they function as “powerful sources acting to reshape that activity and its meaning.”<sup>42</sup> This is a phenomenon that is quite clearly demonstrated by firearms, which have advanced exponentially in the past several centuries. Though the same outcome that guns are used for—the harming of a body or an object—can be achieved through other means and tools, guns have fundamentally changed that action. No other tool can come even close to achieving the speed or level of damage caused by a gun, and because of this they have revolutionized and changed violence and crime, particularly in the United States.<sup>43</sup>

Drawing on Winner’s argument, we can consider its explanatory value for social and moral problems associated with modern firearms. Winner mentions the fact that although activities such as talking and eating existed prior to cell phones and food processing technologies, these technological developments have drastically changed these actions. Following this rationale, it is clear that guns have also changed the human practice of and ability to cause harm, redefining terms such as “massacre” and “mass killing.”<sup>44</sup> New terms, specific only to guns and their capabilities,

---

<sup>42</sup> Winner, “Technologies as Forms of Life,” 105.

<sup>43</sup> Carter, Gregg Lee. *Guns in American Society: An Encyclopedia of History, Politics, Culture, and the Law*. Santa Barbara, CA: ABC-CLIO, 2002. Print.

<sup>44</sup> Winner, “Technologies as Forms of Life,” 108.

have even been born, such as “mass shooting”—a word that has become increasingly more common splashed across headlines and news sources.

Another contributing factor to technological somnambulism that Winner mentions is a lack of recognition for the need to reflect upon human relationships with technical objects. Both makers and users of technologies take for granted that technological innovation can be equated to progress, and fail to pause and analyze the impact that artificial aids have on human action.<sup>45</sup> In reality, technological objects reshape and dictate not only *what* humans can do, but also *how* society views and thinks about these actions and concepts as a whole. As Winner notes, “the kinds of things we are apt to see as ‘mere’ technological entities become much more interesting and problematic if we begin to observe how broadly they are involved in the conditions of social and moral life.”<sup>46</sup> This is a strategy that is imperative to apply to guns in the United States when discussing gun policy and considering the power of American gun culture.<sup>47</sup> Because guns have become so engrained in American life, an entire culture has formed around them, enabling gun-rights activists and groups to garner an impressive amount of political and lobbying power.

Because society has such a misunderstanding of the role and nature of guns, there is a vast underestimation of the necessity for gun control policies.

---

<sup>45</sup> Winner, “Technologies as Forms of Life,” 103.

<sup>46</sup> Winner, “Technologies as Forms of Life,” 105.

<sup>47</sup> Carter, 2002.

Firearms users are, as demonstrated by the work of Winner, not nearly as in control as they often consider themselves. Guns, as a technology, have affects and impacts that resonate well beyond the direct user-gun interaction, and permeate society and communities in a much deeper way. Because of this, gun control legislation is not inconsequential or trivial, but much more crucial than it is often perceived to be. STS tools, particularly those conceived of by Winner, demonstrate just how critical of an issue gun control is in American society.

— Applying STS theories to Gun Policy Issues Part II —

*Assault Weapons and Policy Recommendations in Light of an STS Analysis*

The above sections have demonstrated a need for the regulation of firearms, yet have not identified how such legislation should be focused. There are many varying types and levels of legislation that gun control advocates have proposed over the years, from complete bans on all civilian firearm ownership to tightened requirements for licensing and purchasing.<sup>48</sup> Though the merits and downfalls of these various proposals could be discussed and analyzed at length, this paper will focus only on the specific gap in legislation where STS scholarship has much to contribute. Rather than discussing all of the countless policy options and comparing their effectiveness—as many papers and articles involved in the gun control debate have done—this paper seeks to reveal a new angle through the use of STS that has not previously been studied or largely discussed.<sup>49</sup>

As such, this remainder of this paper will explore assault weapon policy specifically—as opposed to licensing policies or background check legislation—as this is where STS scholarship and tools are most applicable and useful. This is because assault weapon policy is extremely technology oriented, as it focus directly on the gun itself, as opposed to the gun owner or

---

<sup>48</sup> Pérez-Peña, Richard. "Gun Control Explained." *The New York Times*. The New York Times, 07 Oct. 2015. Web. 21 Apr. 2017. <[https://www.nytimes.com/interactive/2015/10/07/us/gun-control-explained.html?\\_r=0](https://www.nytimes.com/interactive/2015/10/07/us/gun-control-explained.html?_r=0)>.

<sup>49</sup> Lott, John R. *More Guns, Less Crime Understanding Crime and Gun Control Laws*. Chicago, IL: U of Chicago, 2013. Print.

the gun merchant. Furthermore, assault weapons are the most drastically different firearm technology compared to guns during the enactment of the Second Amendment, and thus warrant closer inspection than others, such as hunting rifles or handguns. First, it is important to understand the history of assault weapons, and their complicated and difficult legislative background. Following this, the STS tool of Actor Network Theory will be applied, in order to better understand why assault weapons have been so hard to regulate, and how their role in society contributes to this. Until the root of the legislative roadblocks can be revealed and understood, policy will continue to be inhibited. The aim of this paper, continued in the proceeding sections, is to break down and comprehend these issues by utilizing STS scholarship and tools, so that policy may finally move past these obstacles.

### **What Are Assault Weapons and How Do They Fit Into the U.S. Legal Framework?**

The landmark D.C v Heller case, which reaffirmed the right to keep and bear arms as an individual right of all people, has served as an outline and foundation for all of our current firearm policy in the United States. A more complex issue, however, has subsequently arisen in legislation over the last several decades: what firearm and gun technologies fall under this definition of “arms,” and are protected by the Second Amendment? Although there types of firearms, perhaps the most hotly contested are assault weapons. This is where STS in particular can contribute to reframing the debate around gun

policy. In June 2016, an ISIS terrorist entered a gay nightclub in Orlando and began shooting, killing 49 civilians and injuring 53 others.<sup>50</sup> The gunman, Omar Mateen, did so using a semi-automatic Sig Sauer MCX rifle that used an AR-15 style magazine and ammunition.<sup>51</sup> In wake of this recent Orlando shooting, an old debate was sparked surrounding one particular type of technology, semi-automatic firearms, which are often seen as the “weapons of choice” for mass shootings.<sup>52</sup> In 1994, the United States Congress passed the Federal Assault Weapons Ban, also known as the AWB, following the 1989 school shooting that took place in Stockton, California. The weapon used in this particular shooting was an AK-47, which falls under the larger classification of semi-automatic weapons.<sup>53</sup> Under the AWB, it was made “unlawful for a person to manufacture, transfer, or possess a semiautomatic assault weapon,” but rather than outlawing these indefinitely, the AWB used a sunset clause to limit the ban to 10 years.<sup>54</sup> In 2004, just four years prior to the

---

<sup>50</sup> Fantz, Ashley, Faith Karimi, and Elliott C. McLaughlin. "49 Killed in Florida Nightclub Terror Attack." *CNN*. Cable News Network, 13 June 2016. Web. 21 Apr. 2017.

<sup>51</sup> Jansen, Bart. "Weapons Gunman Used in Orlando Shooting Are High-capacity, Common." *USA Today*. Gannett Satellite Information Network, 15 June 2016. Web. 21 Apr. 2017.

<sup>52</sup> Schildkraut, Jaclyn, and Tiffany Cox Hernandez. "Laws that bit the bullet: A review of legislative responses to school shootings." *American Journal of Criminal Justice* 39.2 (2014): 358-374.

<sup>53</sup> Fackler, Martin L., et al. "Wounding effects of the AK-47 rifle used by Patrick Purdy in the Stockton, California, schoolyard shooting of January 17, 1989." *The American journal of forensic medicine and pathology* 11.3 (1990): 185-189.

<sup>54</sup> Schildkraut and Hernandez, 2014.

D.C. v. Heller decision, the AWB expired, making it again legal to own, use, and manufacture semi-automatic firearms.

While fully automatic weapons have remained exclusively legal for military use, semi-automatic weapons are readily available and legal for civilian purchase and use. "Semi-automatic" is a term used to describe the rate of fire, enabling only one bullet per trigger compression, while fully automatic weapons will continue to fire as long as the trigger is held down. It is also a term applied to and associated with what have come to be known as "assault weapons," which is a category of firearms that have become increasingly central in gun policy debates. This blanket term has come under much heat due to the fact that its legitimacy is largely contested, with many arguing that there is no clear technology that can be labeled as an "assault weapon," despite the frequent use of the term by mainstream media. Considering this state of affairs, the following question arises: why is the definition of an "assault weapon" so hotly contested? To frame this from an STS viewpoint: What are the political, cultural, and societal actors that contribute to the destabilization of assault weapons as a definable technology?

As pro-gun control advocates push for stricter policy banning on "assault weapons," it is important as an STS scholar to examine this technology, and determine if these are indeed a distinct and identifiable class. Commonly, assault weapons have come to be defined by key actors such as policy makers, the media, and users alike by three characteristics:

intermediate cartridges, detachable magazines, and selective fire.<sup>55</sup> The first characteristic, intermediate cartridges are quite powerful, and are used not only in legal civilian firearms such as the AR-15, but also in military-grade weapons such as the M16.<sup>56</sup> However, it is the third characteristic—selective fire—that that is the least concrete of the three. Selective fire refers to the ability of the gun must be able to switch between automatic and semi-automatic settings.<sup>57</sup> This is where the distinction reaches a weak point, and warrants further investigation. Though the definition of assault weapons is used as a stabilized term, they are situated in a complex network with other actors in such a way that has in fact destabilized their characterization, thus posing challenges to their regulation.

According to this defining characteristic of “assault weapons” or “assault rifles,” many of the semi-automatic guns used in mass shootings over the past several decades would be able to escape falling under this category, due solely to the fact that they do not have selective fire capabilities in their original, manufactured state. Anti-gun control advocates argue against the classification of “assault weapon,” because they argue that weapons like the AK-47 and AR-15 are only similar to military guns in cosmetic appearance, but are only as powerful and hunting rifles in firepower and functional

---

<sup>55</sup> Perticone, Joe. "The Next Time Someone Calls an AR-15 an Assault Rifle, Show Them This." *Independent Journal Review*. N.p., 13 June 2016. Web. 1 Nov. 2016.

<sup>56</sup> Hargarten, Stephen W., et al. "Characteristics of firearms involved in fatalities." *JAMA* 275.1 (1996): 42-45.

<sup>57</sup> Hargarten, 1996.

capabilities. Closer inspection of these semi-automatic weapons reveals that this claim is a gross underestimation of the technology, as well as the possible modifications that can be made, with relative ease, to these weapons. In fact, many of these semi-automatic weapons can be made to have fully automatic firing capabilities not only through a multitude of illegal modifications, but also through modifications that remain completely legal.<sup>58</sup> One such modification option is the addition of a simple and legal device such as the patented “bump fire lock.” Invented and patented by Jeremiah Cottle and David Compton, the lock is intended to be “a handle for rapidly firing a semi-automatic firearm,” enabling the user to fire multiple bullets in the span of a few seconds by holding down the trigger.<sup>59</sup> By doing so, a semi-automatic weapon can be morphed into an automatic weapon, with firing capabilities and potential for mass-violence comparable to the weapons used by the military.<sup>60</sup> This distinction between military and civilian firearms is crucial, as the Second Amendment only pertains to firearms which are to be owned by civilians. When a civilian firearm becomes almost identical a military-grade weapon in both aesthetic and capability, it no longer should be able to qualify

---

<sup>58</sup> Ryan, Mae, and Adam Gabbatt. "New York Assault Weapons Ban Circumvented with Simple Modification." *The Guardian*. Guardian News and Media, 01 Apr. 2014. Web. 2 Dec. 2016.

<sup>59</sup> Cottle, Jeremiah, and David Compton. "Handle for a semi-automatic firearm." U.S. Patent No. 8,474,169. 2 Jul. 2013. This is the patent filed by Jeremiah Cottle and David Compton, for their “bump fire lock” modification.

<sup>60</sup> Luckerson, Victor. "This Gun Law May Have Let the San Bernardino Attackers Shoot Faster." *Time*. Time, 4 Dec. 2016. Web. 1 Dec. 2016.

as legal for a civilian to own. Military guns and weapons are meant only to damage, hurt, or kill other soldiers and humans—which is something that is illegal for civilians to do. Civilian firearms are only supposed to be used for self-defense, recreation, hunting, and other legal activities. As soon as the gun’s capability begins to far exceed these purposes, to the point that it instead seems to be geared towards military purposes, it must be classified as military-only.

Considering technological agency and technological somnambulism, it is clear that policies must be implemented in order to regulate firearms in the United States. The next question is—to what extent? Some call for a complete ban and an overturning of the Second Amendment, while others only ask for a tightening of current laws and restrictions. As discussed earlier, a total ban is unlikely, due to the current legislative structure and political climate in the United States. Furthermore, in a democracy like the United States, there would be no place for such a ban that would go against many citizens’ beliefs and Constitutional rights. Although this may be true, not all gun types can or should be viewed equally under the law.

### **Introducing STS in order to Re-conceptualizing Assault Weapons Through an Actor Network**

As shown by the *D.C. v Heller* case, a complete ban on civilian firearm ownership and use is not a feasible or likely policy solution for gun-control proponents, as either the Court case would have to be overturned or the

Second Amendment repealed entirely, which is nearly impossible in our current political landscape. Instead, firearm policy should turn its focus on what technologies fall under the “right to bear arms,” and how we define these technologies, which is where the STS discipline has a great deal to add. Thus far, Assault Weapons have been referred to in this discussion without an STS perspective, in the way that the media, general public, and legislators view them—as if they are a concrete technology, sharply definable by seemingly immutable physical characteristics and functions. Viewing assault weapons this way is inaccurate, and stands in the way of policy progress. By applying a common STS methodology, the Actor Network Method, it is clear that the term “assault weapon” does not in fact refer to a precisely definable technology, but rather to a technology that is embedded in a complex network of actors that together function in a way that actually destabilizes the “assault weapons” themselves.

### **Actors, Observations, and Connections Identified Through the Application of the ANT to Assault Weapons**

Actor Network Theory (ANT) is both a theory and a methodology, which identifies all of the potential factors and entities involved in a complex network that surrounds a technological object, and then observing this network to further understand the object itself and its role in society. ANT identifies bodies, both human and non-human, that are in any way connected to the technology in question. These are known as the Actors. ANT then draws

connections between these actors and the technology, in order to conceptualize the technology and its interactions with society. By doing so, it is possible to analyze how these networks are built, and how they function in regards to the technology. In the remainder of this paper, ANT will be utilized in order to try and understand what assault weapons are, if they are even definable, and why they have been so challenging to regulate. Hopefully, applying an STS viewpoint can help to lend a new dimensional lens through which we can re-conceptualize this current policy issue.

The employment of an actor network regarding assault weapons reveals many actors, including (but not limited to): the NRA and other gun rights advocates, civilians, gun-control advocates and NGOs, political parties, the media, victims, the 2<sup>nd</sup> Amendment, court cases and judicial precedence, legislative bodies and legislators, judges and courts, gun owners, gun manufacturers, part inventors, patents, and the various parts of the technology itself. Interestingly enough, civilians are not linked to the policymaking actors—such as legislative bodies, legislators, judges, and courts—directly, but rather are connected to them through other actors like their political parties, anti and pro-gun control NGOs, and the media. Likewise, there are many actors in the network that are important and influential in the context of the greater actor network, and that have consequential effects for assault weapons, but that do not interact or link directly with the firearms.

The Actor Network Theory method is germane to uncovering and analyzing a major policy question and issue—why have assault weapons been

so difficult to regulate following Newtown and other mass-shooting tragedies? Analyzing assault weapons through an actor network methodology can help understand why this is the case. First, it is pertinent to observe the physical parts that, together, contribute to the unstable definition of an assault weapon; there is the basic gun, the intermediate cartridge, the detachable magazine, and selective fire mode, and bump fire locks. With the bump fire lock added, the selective fire mode is effectively erased, thus creating a technology that is fundamentally different in function and physical being, yet still technically defined as the same technology, an “assault weapon.”<sup>61</sup> Considering this, it is important to take pause and inquire which specific actors are acting as spokespeople for the definition of assault weapons, and how these differing definitions and conflicting actors are making the technology so complicated to regulate.

### **Government, Legislators, and Other Actors that Destabilize The Legal Definition of Assault Weapons**

The government and legislators are granted the power to determine the legal definition of an assault weapon, which as discussed previously, is made up of three distinct characteristics. Similarly, these actors also are granted the power to outline which modification parts can also be added to assault weapons while still remaining within their legal definition. When added to the firearm, modifications like the bump fire lock do not change the

---

<sup>61</sup> Cottle and Compton, 2013.

government and legislator's definition of it as an assault weapon, however non-patented and unapproved illegal modifications *do* in fact change the legal classification of the firearm to that that is no longer an assault weapon, despite these modifications having similar—or even the same—affects and outcomes as those that are legal and patent-approved. In the case of the recent San Bernardino shooting in 2015, the assault weapons that were purchased were legal under California's state assault weapons ban, however they were modified in a way that is technically illegal under California State law.<sup>62</sup> One of the guns was modified so that it could shoot in fully automatic mode rather than semi-automatic. This kind of modification is only illegal if done using certain methods, although the firearm in question could be modified for the same effect by using another technique and still regarded as a legal assault weapon.

Though California has stricter constraints regarding assault weapons than other states, regulation abilities of all states are limited due to the Supreme Court's ruling in the 2010 *McDonald v. City of Chicago* case. This established that the 2<sup>nd</sup> Amendment right to bear arms is applicable to all state laws in addition to federal law by incorporation through the 14<sup>th</sup> Amendment's Due Process Clause, meaning that States are severely limited in making their own regulations or bans regarding firearms.<sup>63</sup> California, being a

---

<sup>62</sup> Jones, Ashby. "Rifles Used in San Bernardino Shooting Illegal Under State Law." *The Wall Street Journal*. Dow Jones & Company, 03 Dec. 2015. Web. 6 Dec. 2016.

<sup>63</sup> *McDonald v City of Chicago*. 28 June 2010. *Justia*. N.p., n.d. Web. 3 Dec. 2016.

notoriously liberal “blue” state, passed a bill in 1989 called the Assault Weapons Control Act that restricted the sale and ownership assault weapons as much as possible within the limits of the 2<sup>nd</sup> amendment. Despite the bill’s ban of several popular assault weapons—which remain legal in most other states—there are still many assault weapons that are legal even within California. Furthermore, prior to a 2016 bill that was signed in response to the San Bernardino shootings, gun manufacturers in California had been exploiting the “bullet button loophole” in the 1989 assault weapons ban.<sup>64</sup> According to the ban, a firearm does not classify as an assault weapon if it has a fixed magazine rather than a detachable magazine. This is significant, because it meant that any firearm that was *legally* recognized as having a fixed magazine was within the law, even if the gun was otherwise identical to an illegal gun with a detachable magazine. Using this loophole, gun manufacturers created a bullet button that circumvented the ban, and enabled the users to transform a “fixed” magazine into a detachable magazine at the push of a button.<sup>65</sup> Since the legislation was not prepared for this and didn’t explicitly mention anything about such modifications, gun manufacturers were able to exploit this gap in the policy. Essentially, the bullet button allowed

---

<sup>64</sup> Jones, 2015.

<sup>65</sup> Yablon, Alex. "New Toys Allow California Gun Owners to Skirt the State's Assault Weapons Ban." *The Trace*. N.p., 02 Mar. 2017. Web. 21 Apr. 2017.

for the magazine to be legally classified and recognized as “fixed,” even though it is functionally the same as a detachable magazine.<sup>66</sup>

### **How the Destabilized Definition of Assault Weapons Acts as a Blockade to Policy Implementation and Effectiveness**

As can be seen through the San Bernardino modification and the bullet button loophole examples, gun part manufacturers are actors that have interests and personal stakes in promoting a certain definition of “assault weapons” that includes their modifications. By lobbying legislators, they have been able to seemingly validate this definition so that it is legally recognized, even though these legal assault weapons are essentially and functionally identical to assault weapons made “illegal” through other methods of modification. It is conundrums like this that have made assault weapons so difficult to regulate, even in the face of frequent mass-shootings and high gun violence statistics. When gun-control advocates push for the banning and regulation of assault weapons following these tragedies, gun-control opponents argue that the guns were not actually assault weapons due to their illegal modifications, and therefore there is no use to banning legal assault weapons.

This argument is problematic, because similar to the “guns don’t kill people, people kill people” mantra, it ignores the agency of the gun completely,

---

<sup>66</sup> Jones, 2015.

as well as the complex system within which they operate. Furthermore, legal gun modifications can be costly, and illegal modifications can be done by oneself and without the hefty price tag. Presumably, shooters who are going to be breaking the law anyway likely would rather do it themselves, and are not concerned that there is a legal route to the same modification outcome. Thus, gun-control opponents are able to argue against banning the assault weapons used in mass-murder incidences, placing emphasis on the illegal nature of the modifications made, despite the fact that they could potentially have been made just as easily through the addition of a legal part.

California is far from being the only state where gun owners and manufacturers have managed to circumvent restrictions and regulations places on assault weapons. Following the Newtown school shooting, New York State passed the Safe Act of 2013, hailed by the governor as, “the toughest assault weapons ban in the country.”<sup>67</sup> The Safe Act required strict background checks for gun purchasers, as well as tightened the definition of the assault weapons that it banned.<sup>68</sup> Similar to California, weapons with detachable magazines were outlawed, as well as firearms with specific types of grips. However, this did not stop gun manufacturers from finding a loophole through which they could get around the new ban and continue business as usual. Rochester firearms manufacturer Just Right Carbines designed and built a

---

<sup>67</sup> United States. New York State Government. *SafeAct.Ny.Gov.* N.p., n.d. Web. <<https://safeact.ny.gov/>>.

<sup>68</sup> United States. New York State Government. *SafeAct.Ny.Gov.* N.p., n.d. Web.

modified version of a semi-automatic weapons, which is specifically is tailored for the New York market in order to comply with the Safe Act restrictions and New York gun laws.<sup>69</sup> By doing so, they are able to create a weapon that differs in appearance and physical shape from the banned assault weapons, but that is still the same in function and ability. It is in this way that legislator's legal definitions of assault weapons have been counterproductive to regulation goals, and have failed in helping to ban them in almost every state that has passed such legislation.

---

<sup>69</sup> Ryan, Mae, Gabbatt, 2014.

—Conclusion —

Current firearms and assault weapon policy discussions are extremely non-STS oriented and situated. In the complex, current legislative landscape, there is a pressing need to find answers to many long-held debates surrounding gun control, as well as discover a feasible role for gun policies to play within United States society moving forward. Through the use of STS scholarship and theory, answers to many of these debates become clearer, and a need for gun control can be firmly established. For example, gun control is often pushed against using the argument that “guns don’t kill people, people kill people.” Looking at this assertion through the lens of STS, it becomes obvious that guns do in fact contain moral value and have some level of technological agency. Another instance where STS can be used to settle a gun control dispute is in regard to user-gun interactions and relationships. Currently, there are many wrong assumptions and misconceptions surrounding the interactions that occur between the gun user and the gun itself. Oftentimes, it is assumed that the user has a much higher level of awareness and control over the gun and their interaction with it than they actually have. Once these various fallacies are deconstructed through the use of STS, as has been done in the preceding chapters, the case for gun control is situated in a new way. STS has provided a powerful argument regarding the interactions of people and their artifacts, which has shed new light upon gun

control issues. It is following the establishment of this new perspective that specific policy recommendations can be made.

### **Recommendations for Future Firearm Policies, Informed by an STS Perspective**

When discussing firearm policy in the United States, it is important to understand the parameters that must be taken into account and followed. First and foremost, in a country with such a strong and deeply rooted gun culture, it should be assumed that the Second Amendment is here to stay, at least for the foreseeable future. Therefore, any complete ban on firearms is both unrealistic and unconstitutional. Rather, firearm policy must be much more focused than a general blanket-ban. Such policies must differentiate between types of users, as well as types of firearms. For example, firearm legislation must distinguish hunting rifles and self-defense handguns from military-grade assault weapons, which are a completely different machine than what was initially considered a “firearm” at the time of the Second Amendment’s enactment. Taking this into consideration, there are several areas in which firearm policies should be implemented or improved. The first of these is in determining the qualifications for becoming a firearm owner. This realm incorporates licensing laws and background checks, both of which could be tightened and increased. The biggest area, however, that requires a change in current firearm laws is assault weapon legislation. This is another area where STS can be used to identify and solve policy issues.

It is clear that the complex and numerous actors in the network that surrounds assault weapons, and the subsequent destabilization they contribute to, continually prevent meaningful progress in firearm policy making. If gun-control advocates hope to tighten the bans around “assault weapons,” they must acknowledge the weakness of the term “assault weapon,” and recognize that such an undefined term cannot be used in order to craft effective legislation. Even in states where conservative opposition has been defeated and legislation has been passed, the use of this term “assault weapons,” has been the downfall of the legislation. Gun manufacturers and owners have found numerous loopholes through which they can undermine and effectively ignore the bans through the shaky definition itself. Only by recognizing that this is occurring can these loopholes can be closed, and this continuous cycle of ineffective legislation and ensuing circumvention be halted for good.

Now that the problem has been identified, the difficult part lies ahead—formulating legislation that does not fall prey to this vicious cycle, and that avoids the issues that have plagued current and past legislation. How can a technology like assault weapons be successfully regulated through policy when it’s legal definition is so unstable? The first step in any problem-solving process is, first and foremost, identification of the problem that is causing the unwanted outcome. In this situation, the unwanted outcome is a lack of effectual policy, and the problem—as identified through the application of the STS Actor Network Theory—is the unstable nature of the definition of assault

weapons. This instability is a result of actions by legislators and gun manufacturers, which are just a couple of many of the actors involved in the greater network.

The definition of an assault weapon is often taken for granted without actually examining it and breaking it down in the context of society and surrounding actors. Applying an STS perspective, as addressed in this paper, aids in the critique of the current definition of assault weapons to help answer the question as to why assault weapons have not, in fact, stabilized as a single relatable object. Employing the Actor Network Theory enables the identification of one of the main issues: how actors such as legislators have treated the legal definition of assault weapons as a concrete one, when other actors like gun manufacturers are in fact making it impossible for assault weapons to be defined as such. Realizing and accepting the issues with the current definition of assault weapons will be instrumental in formulating new and effective legislation. In order to fill the gaps in gun control legislation, a task that the United States desperately needs to fulfill, the definition of assault weapons needs to be re-conceptualized, reconsidered, and reformed, so that the technology it's meant to define can be controlled and regulated successfully. Realizing and accepting the issues with the current definition of assault weapons will be instrumental in formulating new and effective legislation

Though the focus of this paper is firearm policy in the United States, it is not meant to serve as a specific policy proposal that identifies a precise cure-

all. The objective of this paper and the incorporation of STS is not to necessarily propose any specific new policy, but instead to use STS to shift the discourse to a deeper conceptual territory, where misconceptions and blockades are tackled directly. The aim of this research is to use STS theories and scholarship in order to A) find concrete answers to heated debates that have acted as obstacles for gun policy implementation, B) reevaluate and disprove many of the false ideas about guns, users, and the relationship between the two, C) identify impediments that are inhibiting the passage of effective legislation, and D) recommend areas for which to focus on policy reformation and implementation. The findings of this, as synthesized in previous chapters, are imperative to making further policy progress.

## — Works Cited —

- Block, Walter, and Matthew Block. "Toward a Universal Libertarian Theory of Gun (Weapon) Control: A Spatial and Geographical Analysis." *Ethics, Place & Environment* 3.3 (2000): 289–298. Taylor and Francis+NEJM. Web.
- Campbell, James E. "The Source of America's Political Polarization? It's Us." *Los Angeles Times*. Los Angeles Times, 30 June 2016. Web. 20 Mar. 2017.
- Carter, Gregg Lee. *Guns in American Society: An Encyclopedia of History, Politics, Culture, and the Law*. Santa Barbara, CA: ABC-CLIO, 2002. Print.
- Cottle, Jeremiah, and David Compton. "Handle for a semi-automatic firearm." U.S. Patent No. 8,474,169. 2 Jul. 2013. This is the patent filed by Jeremiah Cottle and David Compton, for their "bump fire lock" modification.
- Criminal Justice Ethics*, 20:1, 28-33, DOI: 10.1080/0731129X.2001.9992097
- D.C. v Heller*. U.S. Supreme Court. 26 June 2008. Justia. N.p., n.d. Web. 20 Oct. 2016.
- DeGrazia, D. "The Case for Moderate Gun Control." *Kennedy Institute of Ethics Journal*, vol. 24 no. 1, 2014, pp. 1-25. Project MUSE, doi:10.1353/ken.2014.0003.
- Ed—A Petition For Stronger Gun Laws. States United to Prevent Gun Violence. N.p., n.d. Web. 1 Apr. 2017. <<https://www.youtube.com/watch?v=LORVfnFtcH0>>.
- Fackler, Martin L., et al. "Wounding effects of the AK-47 rifle used by Patrick Purdy in the Stockton, California, schoolyard shooting of January 17, 1989." *The American journal of forensic medicine and pathology* 11.3 (1990): 185-189.
- Fantz, Ashley, Faith Karimi, and Elliott C. McLaughlin. "49 Killed in Florida Nightclub Terror Attack." *CNN*. Cable News Network, 13 June 2016. Web. 21 Apr. 2017.
- "Gun Control - ProCon.org." *Should More Gun Control Laws Be Enacted in the United States?* ProCon.org, n.d. Web. 2 Apr. 2017. <<http://gun-control.procon.org/>>.

- Hargarten, Stephen W., et al. "Characteristics of firearms involved in fatalities." *JAMA* 275.1 (1996): 42-45.
- Jansen, Bart. "Weapons Gunman Used in Orlando Shooting Are High-capacity, Common." *USA Today*. Gannett Satellite Information Network, 15 June 2016. Web. 21 Apr. 2017.
- Johnson, Deborah G., and Thomas M. Powers. "Ethics and Technology: A Program for Future Research." *Society, Ethics, and Technology*. By Morton Emanuel. Winston and Ralph Edlbach. Belmont, CA.: Wadsworth, 2000. 156-66. Print.
- Jones, Ashby. "Rifles Used in San Bernardino Shooting Illegal Under State Law." *The Wall Street Journal*. Dow Jones & Company, 03 Dec. 2015. Web. 6 Dec. 2016.
- Kelto, Anders. "The U.S. Is A World Leader In Gun Deaths." *NPR*. NPR, 7 Dec. 2015. Web. 10 Oct. 2016.
- Kocsis, Michael (2015) "Gun Ownership and Gun Culture in the United States of America," *Essays in Philosophy*: Vol. 16: Iss. 2, Article 2.
- LaFollette, Hugh (2000). "Gun control." *Ethics* 110 (2):263-281.
- Latour, Bruno. "On Actor-Network Theory: A Few Clarifications." *Soziale Welt*, vol. 47, no. 4, 1996, pp. 369–381., [www.jstor.org/stable/40878163](http://www.jstor.org/stable/40878163).
- Lott, John R. *More Guns, Less Crime Understanding Crime and Gun Control Laws*. Chicago, IL: U of Chicago, 2013. Print.
- Luckerson, Victor. "This Gun Law May Have Let the San Bernardino Attackers Shoot Faster." *Time*. Time, 4 Dec. 2016. Web. 1 Dec. 2016.
- McDonald v City of Chicago. 28 June 2010. *Justia*. N.p., n.d. Web. 3 Dec. 2016.
- Müller, Vincent C. (2015). "Gun Control: A European Perspective." *Essays in Philosophy* 16 (2):247-261.

- Post, Robert C., "Theories of Constitutional Interpretation" (1990). Faculty Scholarship Series. 209.
- Pérez-Peña, Richard. "Gun Control Explained." *The New York Times*. The New York Times, 07 Oct. 2015. Web. 21 Apr. 2017.  
<[https://www.nytimes.com/interactive/2015/10/07/us/gun-control-explained.html?\\_r=0](https://www.nytimes.com/interactive/2015/10/07/us/gun-control-explained.html?_r=0)>.
- Perticone, Joe. "The Next Time Someone Calls an AR-15 an Assault Rifle, Show Them This." *Independent Journal Review*. N.p., 13 June 2016. Web. 1 Nov. 2016.
- Peterson, Martin, and Andreas Spahn. "Can Technological Artefacts Be Moral Agents?" *Science and Engineering Ethics* 17.3 (2011): 411–424. PMC. Web. 27 Sept. 2016.
- "Rational Basis Test." LLI Legal Information Institute. Cornell Law School, n.d. Web.
- Ryan, Mae, and Adam Gabbatt. "New York Assault Weapons Ban Circumvented with Simple Modification." *The Guardian*. Guardian News and Media, 01 Apr. 2014. Web. 2 Dec. 2016.
- Scalia, Antonin. "Originalism: The Lesser Evil." *University of Cincinnati Law Review* 57.3 (1989): 849-866.
- Schildkraut, Jaclyn, and Tiffany Cox Hernandez. "Laws that bit the bullet: A review of legislative responses to school shootings." *American Journal of Criminal Justice* 39.2 (2014): 358-374.
- Stell, L. K. (2004), "The Production of Criminal Violence in America: Is Strict Gun Control the Solution?." *The Journal of Law, Medicine & Ethics*, 32: 38–46. doi:10.1111/j.1748-720X.2004.tb00447.
- United States. New York State Government. *SafeAct.Ny.Gov*. N.p., n.d. Web. <<https://safeact.ny.gov/>>.
- Verbeek, Peter-Paul. "Obstetric ultrasound and the technological mediation of morality: A post phenomenological analysis." *Human Studies*. 2008;31:11–26. doi: 10.1007/s10746-007-9079-0.

Winner, Langdon. *Do Artifacts Have Politics?* 1st ed. Vol. 109. N.p.: MIT, 1980. Daedalus. JSTOR [JSTOR]. Web. 7 Oct. 2016.

Winner, Langdon. "Technologies as Forms of Life." *Ethics and Emerging Technologies* (2014): 48-60. JSTOR [JSTOR]. Web. 7 Oct. 2016.

Winner, Langdon. *The Whale and the Reactor: A Search for Limits in an Age of High Technology*. Chicago: U of Chicago, 1992. Print.

Wintemute, Garen J. et al. "Gun Shows and Gun Violence: Fatally Flawed Study Yields Misleading Results." *American Journal of Public Health* 100.10 (2010): 1856-1860. PMC. Web. 17 Dec. 2016.