

ON “DEATH HOUSES” AND “KILL BOXES”: THE DEATH PENALTY AND ANIMAL SLAUGHTER

John H. Blume†

INTRODUCTION.....	1706
I. THE QUEST FOR MORE “HUMANE” METHODS OF KILLING	1706
A. State Sanctioned Executions	1707
B. Animal Slaughter	1713
II. LEGAL CHALLENGES TO EXECUTION METHODS USING ANIMAL SLAUGHTER AND EUTHANASIA GUIDELINES.....	1716
A. Lethal Injection	1716
B. Judicial Electrocution.....	1719
C. Nitrogen Hypoxia.....	1721
III. SOME COMMON THEMES IN THE TWO PRACTICES	1722
A. Protocols/Practices are Primarily for Participants/Observers.....	1722
B. Speed Kills (Just Not Well or “Humanely”).....	1727
C. Keeping Killing Hidden From Public View.....	1729
D. Killing Takes a Toll on the Killers.....	1731
CONCLUSION.....	1734

“[P]ainless death at the slaughterhouse is another fiction, a grotesquely inaccurate one.”¹

Sherry Colb

“If we as a society want to carry out executions, we should be willing to face the fact that the state is committing a horrendous brutality on our behalf.”²

Alex Kozinsky

† Samuel F. Leibowitz Professor of Trial Techniques, Cornell Law School and Director the Cornell Death Penalty Project. I would like to thank the participants at the Symposium held at Rutgers Law School, especially Mike Dorf, for helpful feedback. I would also like to thank the attorneys at Justice 360-SC, who were co-counsel with me in the litigation challenging South Carolina’s new methods of execution legislation as that experience helped shape many of the thoughts contained in this essay. Finally, I would like to thank the many students who assisted with research for both the litigation and this piece, and the editors of the Cornell Law Review for their assistance finalizing the essay.

¹ Sherry Colb, *Subject of a Death*, 105 CORNELL L. REV. ONLINE 205, 222 (2020).

² *Wood v. Ryan*, 759 F.3d 1076, 1103 (9th Cir. 2014) (Kozinski, C.J., dissenting).

INTRODUCTION

This Essay is somewhat unusual for a Symposium of this nature honoring the scholarship (and of course the memory) of my former colleague and friend Sherry Colb. I will not engage directly with an article or book Sherry did write, but rather with one that she didn't. Sherry (and her husband and frequent co-author Michael Dorf) submitted a book proposal a number of years ago that would have discussed the links between the death penalty and animal slaughter and euthanasia. The working title of the book was *The Machinery of Death: Capital Punishment and Animal Slaughter in the U.S.* For a variety of reasons, the book never came to fruition.³ In recent years, I have both through litigation on behalf of death row inmates, and my scholarly interest in the death penalty more broadly, been drawn into the (ongoing) controversy over various methods of execution. For example, South Carolina claimed it could not obtain drugs for execution by lethal injection and thus resurrected the use of the electric chair and adopted, for the first time, the firing squad as an alternative method of dispatching the condemned. During the course of that litigation challenging both methods as unconstitutional, a number of comparisons were drawn by our legal team between the protocols for "humane" animal slaughter and South Carolina's execution protocols for judicial electrocution and firing squad. But, in other litigation, as well as in several other academic articles, similar comparisons have been made between lethal injection and animal slaughter and euthanasia protocols. In reading Professors Colb and Dorf's proposal, I was struck by the fact that they had noticed a number of similar themes emerging from the practice of killing human and non-human animals and I will focus on several of those in this Essay.

I

THE QUEST FOR MORE "HUMANE" METHODS OF KILLING

The practice of killing humans convicted of capital crimes and animals raised for human consumption have one significant common thread, at least if your historical perspective is from

³ Professor Colb did write an online article titled *The Dilemma of Humane Execution and Humane Slaughter*, VERDICT (May 21, 2014), <https://verdict.justia.com/2014/05/21/dilemma-humane-execution-humane-slaughter> [<https://perma.cc/TML7-S8GP>]. The article predates the book proposal and appears to be the impetus for it. I will refer to some of the ideas expressed there throughout this Essay.

the late 1800s to the present, and that is the search for more "humane" methods of extinguishing life.⁴ That quest, as it turns out, has for the most part been futile and misguided.⁵

A. State-Sanctioned Executions

While some executions were *intended* to be brutal in order to increase their deterrent effect, e.g., the burning or gibbeting of enslaved persons for plotting or participating in rebellions or crimes of violence against their owners, such cases were relatively rare.⁶ The general expectation for most executions was that death itself was sufficient retribution, and consequently, that capital punishment should be carried out inflicting the minimal amount of physical pain possible. Thus, hanging and the firing squad (which was very rarely used except in a handful of Western states) eventually gave way to the electric chair (and to a lesser degree the gas chamber), which in turn were replaced by lethal injection. The search for new and improved methods of dispatching condemned prisoners was for the most part spurred on by executions which did not go as planned, of which there were many.⁷

⁴ Professors Colb and Dorf noted, as should I, that both practices take life but do so for very different reasons. We slaughter animals to use their bodies for food, clothing, and other items for human use. We execute human beings to punish them for crimes they have been convicted of committing and to (at least according to capital punishment's proponents) deter bad acts by others contemplating committing a capital offense. Sherry F. Colb & Michael C. Dorf, *THE MACHINERY OF DEATH: CAPITAL PUNISHMENT AND ANIMAL SLAUGHTER IN THE U.S.* 4–5 (book proposal, 2018). Although, as bizarre as it sounds, there was a period during the Middle Ages when, in European Courts, animals were tried, convicted, and executed for "crimes" against humans. In 1386, for example, in the Norman city of Falaise, a pig was condemned to die, tortured, and executed after killing an infant. This was not an isolated event. Hundreds of animals (including insects and vermin) met similar fates. They were often tortured and burned alive. EDWARD PAYSON EVANS, *THE CRIMINAL PROSECUTION AND CAPITAL PUNISHMENT OF ANIMALS* 140 (1906); see also Colb & Dorf, *THE MACHINERY OF DEATH* 1.

⁵ Futile with the exception of two other practices not the subject of this Essay, which Professor Colb noted in her verdict article: "physician-assisted suicide and euthanasia of a suffering nonhuman animal." Colb, *supra* note 3. In those situations, as she noted, "there need be no contradiction between killing and humaneness." *Id.*

⁶ WALTER EDGAR, *SOUTH CAROLINA: A HISTORY* 74 (USC Press 1998); STUART BANNER, *THE DEATH PENALTY: AN AMERICAN HISTORY* 70–71 (Harv. Univ. Press 2002).

⁷ For a detailed discussion of botched executions, see generally John H. Blume, *Ghosts of Executions Past: A Case Study of Executions in South Carolina in the Pre-Furman Era*, 107 *CORNELL L. REV.* 1799 (2022). See also AUSTIN SARAT, *GRUESOME SPECTACLES: BOTCHED EXECUTIONS AND AMERICA'S DEATH PENALTY* 116 (Stan. Univ. 2014).

For most of the nation's history, the dominant method of execution was hanging, which arrived along with the early colonists from England. This was so mainly because it required minimal equipment: a rope and a tree. Even hanging, however, went through a metamorphosis. "Early hangings involved putting someone on a ladder or wagon and then removing it."⁸ However, because this method of execution depended on the condemned person dying of oxygen deprivation, it generally took about twenty minutes, and it could be quite garish, with the person swinging at the end of the rope and gasping for breath. Sometimes the person could still talk; many defecated and urinated on themselves in the process of dying; often the person's eyes would bulge out and men would have obvious penile erections.⁹ Thus, in an attempt to eliminate public spectacles, hanging moved from trees to pre-made gallows where the drop was supposed to break the condemned person's neck, producing "the hangman's fracture," and result in a relatively quick and painless death.¹⁰

However, the theoretical effectiveness of the "long drop" method of hanging was hampered by a number of factors, the most significant being lack of expertise. For the most part, in the early years, executions were carried out by the local Sheriff in the county where the crime and trial occurred, and no individual county executed enough persons for local law enforcement to develop sufficient experience in carrying out hangings to kill with precision.¹¹ Further complicating matters was the fact that many law enforcement officials did not like being responsible for putting persons to death, and thus "outsourced" the process to prisoners (or others) to carry out hangings.¹² Moreover, gallows were generally not permanent and were built out of whatever was available at the time one was needed. Thus, trying to calculate the drop necessary to break the condemned person's neck and produce a hasty, painless death was often no more than a guessing game.

An error in either direction could lead to gruesome deaths. If the drop was too great, there was a risk of decapitation. This risk came to fruition on more than one occasion; a South Carolina enslaved person named Ephraim had his head

⁸ Blume, *supra* note 7, at 1805; see BANNER, *supra* note 6, at 45.

⁹ BANNER, *supra* note 6, at 47.

¹⁰ *Id.*

¹¹ *See id.* at 173.

¹² *See id.* at 173-76.

"severed from his body" after too long a drop.¹³ But the more typical "problem" was that the fall failed to break the neck, which generally resulted in a slow, agonizing strangulation. It has been estimated that only 10% to 20% of hangings produced the desired "hangman's fracture."¹⁴ Thus many hangings were, based on the contemporaneous reports, quite horrific.¹⁵

The numerous "botched" hangings across the nation drove the search for a new and more reliable way to kill those convicted of capital offenses.¹⁶ The next new method was devised near the end of the nineteenth century when, in 1885, a New York State Commission proposed using electricity to kill death sentenced inmates. The Governor created the Commission with the following charge:

The present mode of executing criminals by hanging has come down to us from the dark ages, and it may well be questioned whether the science of the present day cannot provide a means for taking the life of such as are condemned to die in a less barbarous manner.¹⁷

Especially relevant to this Essay is that the Chairman of the Commission, Elbridge T. Gerry, was a prominent attorney and counsel for the newly formed Association for the Prevention of Cruelty to Animals. He saw a close link between humane executions and animal slaughter. The Commission concluded that "the most humane and practical method known to modern science of carrying into effect the sentence of death in capital cases" was to cause to "pass through the body of the convict a current of electricity of sufficient intensity to cause death."¹⁸

¹³ *Execution*, CHARLESTON COURIER, Feb. 7, 1820, at 2.

¹⁴ AMANDA HOWARD, ROPE: A HISTORY OF THE HANGED 27 (2016).

¹⁵ For example, Taylor Wilson, executed in Charleston on April 5, 1872, was slowly strangled for approximately five minutes until he managed to free one of his hands and raise himself up by the rope. The sheriff then stepped forward and held Wilson down "until he was too weak to raise himself again, and was compelled to endure a slow death." *A Bungling Execution*, CHARLESTON DAILY NEWS, Apr. 9, 1872, at 1. For a more detailed discussion of some of the botched hangings, see Blume, *supra* note 7, at 1806–09.

¹⁶ See Elbridge T. Gerry, *Capital Punishment by Electricity*, 149 N. AM. REV. 321, 322–24 (1889). Moreover, the increased number of lynchings after the Civil War led some proponents of capital punishment to search for a method of execution that did not so closely resemble the mode most commonly used by the white mobs that carried out extrajudicial acts of racial terror.

¹⁷ *In re Kemmler*, 136 U.S. 436, 444 (1890).

¹⁸ *Id.*

The development of electrocution as the new method of execution was largely a historical accident. One of the commission's members,

Despite the fact that the first judicial electrocution did not go well (to say the least), it quickly caught on as the dominant method of execution in the United States.¹⁹ The variability of this type of execution was known to, and covered up by, the person who developed New York's electrocution "protocol." The forty to fifty dogs, six to ten calves, and two horses electrocuted did not all die immediately based on differences in their skin and hair.²⁰ According to several persons who witnessed them, the animals "appeared to be suffering horrible agony."²¹ But despite the protocol's rocky start, its supporters and the public seemed to accept its supporter assurance that the problem was not with electrocution itself.²² Despite numerous electrocutions where

Dr. Albert Southwick, was a dentist from Buffalo who witnessed what he perceived as a painless death when an individual accidentally touched an electric generator. Southwick enlisted Thomas Edison to persuade the commission to propose electricity as its new, more humane alternative to hanging. Edison was initially not interested in the project as he was opposed to capital punishment, but he soon saw a business opportunity. Edison was losing the "battle of the currents," as George Westinghouse's alternating current (AC) was proving to be more efficient and less expensive than Edison's direct current (DC). Edison believed that if he could associate Westinghouse's AC with death, then it would diminish consumer's enthusiasm for it and give his DC electricity a leg up in the rapidly developing market for electricity in the United States. So, Edison informed Southwick that AC machines, 'even by the slightest contacts, produce[] instantaneous death.' Given Edison's fame, his opinion carried the day, and electrocution using AC became New York's new method of execution.

Blume, *supra* note 7, at 1810 (citation omitted) (alteration in original).

¹⁹ [O]n August 6, 1890, [William] Kemmler was led into the execution chamber at Auburn prison [in New York] and strapped into the new electric chair. . . . The first seventeen-second jolt of one thousand volts of electricity did not kill Kemmler. A second burst of seven hundred volts eventually did produce the desired death, but witnesses reported that blood-vessels beneath Kemmler's skin burst. His hair and skin were visibly singed, and the stench of burned flesh was horrid. A number of nauseated spectators present to watch the new age of executions tried unsuccessfully to leave the room, and one shouted, "For God's sake kill him and have it over!" A doctor who witnessed the execution said, "I want never again to witness anything like that. You may kill a man—but kill him." According to *The New York Times*, it was an "awful spectacle" and "far worse than hanging."

Blume, *supra* note 7, at 1811 (citations omitted).

²⁰ See BANNER, *supra* note 6, at 183.

²¹ Deborah W. Denno, *Is Electrocution an Unconstitutional Method of Execution? The Engineering of Death over the Century*, 35 WM. & MARY L. REV. 551, 580 (1994).

²² See *id.* at 601–02.

the condemned inmate died a horrible death,²³ electrocution remained the dominant method of execution in the United States until the Supreme Court's decision in 1972 in *Furman v. Georgia* invalidated all then existing death penalty statutes.

Just a year after the death penalty was reinstated by the Supreme Court in 1976, ushering in what is generally referred to in academic circles as the "modern era" of capital punishment, lethal injection emerged as the new and more humane way to execute condemned prisoners. It was developed in Oklahoma and adopted in 1977 with the assurance that it would be an alternative to the "inhumanity, visceral brutality, and cost' of the electric chair."²⁴ Very little thought went into developing a protocol for lethal injection; several Oklahoma lawmakers simply asked a local medical examiner whether it would work. He suggested a three drug "cocktail" consisting of sodium thiopental (a sedative to put the person to sleep); pancuronium bromide (a paralytic to render the person unable to move so it looks like he is peacefully going to sleep); and potassium chloride (to stop the heart and cause cardiac arrest).²⁵ A simpler barbiturate-only lethal-injection protocol was rejected at the time on the basis that the public would not support a method of execution used to euthanize animals. A number

²³ To give just a few examples:

[i]t took eleven minutes and multiple jolts to finish off George Washington in 1930; one observer fainted and another had to leave the room. A witness to Thurmond Harris's 1935 execution commented: "The smell of that burning human flesh, the stiffening of the body of that moronic youth as the 2,300 volts [coursed] through it, and the twisted face when the mask was lifted off it are something that will not be easily erased from the memory." When the switch was thrown at George Winyard's execution in 1939, "his body tensed and banged into the back of the chair," and flames danced on his skin. The "current was turned off and on three times," and his body was allegedly carried away "frozen into a seated position."

Blume, *supra* note 7, at 1815 (citations omitted).

²⁴ SARAT, *supra* note 7, at 117.

²⁵ See *Baze v. Rees*, 553 U.S. 35, 42–45, 72 (2008). The drugs and protocols have changed over the years as manufacturers have quit making some of the drugs, e.g., sodium thiopental, or refused to sell them to states if they intend to use them for execution purposes. While a majority of the Supreme Court has blamed the drug manufacturers' refusal to sell the drugs to states on death-penalty activists' shaming strategy, there is very little evidence supporting that as the actual reason they have been reluctant to do so.

Also, while the use of the three drugs is generally referred to as a "cocktail," that is misleading in a sense as the drugs are not mixed but injected into the person being put to death one at a time seriatim. See Deborah W. Denno, *Lethal Injection*, BRITANNICA, <https://www.britannica.com/topic/lethal-injection> [<https://perma.cc/K49U-8S8E>] (last updated Sept. 18, 2024).

of other states soon embraced the new method of execution, and in 1982 Texas became the first state to execute a death-sentenced inmate using the three-drug cocktail. The adoption of lethal injection accelerated after a series of horribly botched electrocutions, most notably in Florida, in the 1990s.²⁶ It is currently an available method of execution in every state that retains the death penalty.

For many years after the proliferation of lethal injection, its humaneness was more or less a given. It was assumed that persons executed were rendered insensate by the first drug and that the execution was quick and painless. However, observers to some lethal injections noticed signs that the person being executed was gasping for air, making audible noises, or exhibiting other signs they were not insensate. This created the risk of a torturous death because if the individual was conscious, they would not be able to indicate that because of the paralytic second drug used.²⁷ If the person were conscious, they would feel as if they were suffocating due to the paralytic, which prevents breathing, and also extreme pain when the third drug was administered.²⁸ This led to litigation in most states using lethal injection, which will be discussed in more detail later in this Essay. For the most part, it has been unsuccessful. Some states modified their protocols to use the single drug, generally pentobarbital, used in animal euthanasia. The Supreme Court has recently deemed this to be the most “humane” method of execution currently available with, in its opinion, a 0% botch rate.²⁹ However, in recent years many drug manufacturers have refused to sell their products to states for execution purposes. This has led to changes in protocols, obtaining drugs for execution in ways that may not

²⁶ In 1990, Jesse Tafero was executed using the electric chair dubbed “Old Sparky.” The machine malfunctioned: “[w]hen the electricity was turned on, the headset that was bolted onto his bare scalp caught fire[, and] [f]lames blazed from his head[.]” Mick Clifford, *Ellen McGarrah and the Search for Truth Following a Grisly Execution*, IRISH EXAMINER (Feb. 12, 2023), <https://www.irishexaminer.com/news/spotlight/arid-41068589.html> [<https://perma.cc/L5KP-CW9D>] (citations omitted).

²⁷ *Lethal Injections Cause Suffocation and Severe Pain, Autopsies Show*, EQUAL JUST. INITIATIVE (Sept. 22, 2020), <https://eji.org/news/lethal-injections-cause-suffocation-and-severe-pain-autopsies-show/> [<https://perma.cc/D5SY-9QZA>].

²⁸ *Id.*

²⁹ *Barr v. Lee*, 591 U.S. 979, 980 (2020) (stating that “Pentobarbital . . . [h]as been used to carry out over 100 executions, without incident [and has] been repeatedly invoked by prisoners as a less painful and risky alternative to [other] lethal injection protocols . . .”).

comply with federal law or some states compounding their drugs "in-house" or through the use of local pharmacists.

The alleged shortage has resulted in some states adding older, seldom-used methods of execution or creating new methods altogether. South Carolina, for example, amended its execution law to make the default method of execution judicial electrocution if the Director of the Department of Corrections certifies lethal injection is not "available."³⁰ It also added the firing squad to its menu of "options" available for a death-row inmate to select.³¹ Other states, e.g., Alabama, have developed (or are developing) a nitrogen-hypoxia procedure in which an inmate undergoing execution would be required to breathe pure nitrogen and thus would die of oxygen deprivation.³²

B. Animal Slaughter

Animals have been killed for human consumption for thousands (some say millions) of years. Given the nature of early and ancient societies, it began with killing and eating wild animals, and then graduated to the consumption of domesticated animals raised for human use. Practices changed as society changed, but at least by the Middle Ages, slaughterhouses began to emerge in cities and towns to feed local populations. Large animals were killed by a variety of means including blunt force to the head and slitting their throats (or both), while smaller animals might have their necks broken or be decapitated. Most domesticated animals were also killed by those who raised them.

In the United States, large slaughterhouses emerged during the nineteenth century "as part of a larger transition from an agrarian to industrial system."³³ Chicago, referred to by poet Carl Sandburg as "Hog Butcher for the World,"³⁴ had a number of slaughterhouses and meatpacking plants that fueled its economy not long after the end of the Civil War.

³⁰ S.C. CODE ANN. § 24-3-530 (2024).

³¹ While not all states provide an inmate facing execution a choice, many do. Offering choices is also an attempt by states to be able to carry out executions if one or more of their methods of execution are found to be unconstitutional.

³² Kim Chandler, *Alabama Wants to Be the 1st State to Execute a Prisoner by Making Him Breathe Only Nitrogen*, AP NEWS (Aug. 25, 2023), <https://apnews.com/article/alabama-death-penalty-nitrogen-hypoxia-a6f414ff6147cbd38de6a8cd01f96653> [<https://perma.cc/PJ2F-RDRY>].

³³ Amy J. Fitzgerald, *A Social History of the Slaughterhouse: From Inception to Contemporary Implications*, 17 HUM. ECOLOGY REV. 58, 59 (2010).

³⁴ Carl Sandburg, *Chicago*, POETRY FOUND. (1914).

Its soon-to-be infamous Union Stock Yard opened in 1865. The slaughterhouses were largely unregulated, and as a result of that and the significant profit motive, they “were not only deadly for livestock, but also horrific for workers, who had to endure bloody working and poverty-stricken living conditions.”³⁵

The American Society for the Prevention of Cruelty to Animals was established in the 1860s. Initially, it was focused on two practices, vivisection³⁶ and the meat industry.³⁷ There was a growing desire for hygienic, non-violent (humane), and undetectable slaughter. This led to slaughterhouses implementing the practice of stunning animals prior to killing them in order to reduce their pain and suffering. Initially stunning was performed by hitting the animals in the head, but techniques evolved (as will be discussed later in the Essay). The slaughterhouses came under increased scrutiny following the publication of Upton Sinclair’s 1906 novel *The Jungle*, which described the conditions in Chicago’s meatpacking industry. To Sinclair’s dismay, what seemed to shock people the most was not the brutality of the “kill pens,” the greed of the business owners, or even the physical and emotional toll slaughterhouse work had on the employees, but the use of spoiled and contaminated meat in products sold to the American people.³⁸ After the book’s publication, Congress quickly passed the Meat Inspection Act of 1906.

³⁵ Dorothee Brantz, *Recollecting the Slaughterhouse: A History of the Abattoir*, CABINET (2001), <https://www.cabinetmagazine.org/issues/4/brantz.php> [<https://perma.cc/MTU3-LU4T>]. Many readers will be familiar with the *Slaughterhouse Cases*, 83 U.S. 36 (1873), from their first-year Constitutional Law class, in which the Supreme Court rejected a challenge to a Louisiana law effectively creating a monopoly. There were a number of other cases in this era regarding slaughterhouses, but rarely did they have anything to do with the manner in which the animals’ lives were taken.

³⁶ Vivisection involves performing procedures on live animals for medical and other scientific research purposes. *Vivisection*, MERRIAM-WEBSTER, <https://www.merriam-webster.com/dictionary/vivisection> [<https://perma.cc/348P-5YXP>] (last visited Sept. 22, 2023).

³⁷ Shai J. Lavi, *Humane Killing and the Ethics of the Secular: Regulating the Death Penalty, Euthanasia, and Animal Slaughter*, 4 UC IRVINE L. REV. 297, 305 (2014).

³⁸ Sinclair worked undercover for several weeks in a Chicago slaughterhouse doing research for the novel. His goal was to decry capitalism and promote socialism. Thus, the public outrage about the quality of its food and not the exploitation of the workers led him to mark in wry disappointment, “I aimed at the public’s heart, and by accident I hit it in the stomach.” Meredith Francis, *How Upton Sinclair’s ‘The Jungle’ Unintentionally Spurred Food Safety Laws*, WTTW (Jan. 23, 2020), <https://interactive.wttw.com/playlist/2020/01/23/the-jungle-food-safety> [<https://perma.cc/8TY2-3RWF>].

The Humane Slaughter Act of 1958 (HAS) was the first significant legislation regulating the practice of killing animals for human consumption in the United States. It required that the animal's death be "humane," which mandated that designated animals be "rendered insensible to pain by a single blow or gunshot or an electrical, chemical or other means that is rapid and effective" before being killed or processed. It applied to "cattle, calves, horses, mules, sheep, swine, and other livestock."³⁹ The HAS has been amended several times since originally passed, but its requirements are largely still the same.

The American Veterinary Medical Association (AMVA) provides detailed guidelines for what it considers to be humane animal slaughter. The introduction to the most recent edition notes that in recent decades, there has been a "proliferation of the scientific study of animals' welfare to address public concerns regarding the ethical treatment of animals, especially those used in biomedical research and raised and slaughtered for food."⁴⁰ This is spurred on both by "increased interest in food quality, safety, and quantity," and also by "questions about the moral status of animals" that has led to "the public [demonstrating] greater interest in the quality of life provided for animals raised for food" including "how they are handled and managed, and how they are slaughtered and processed for human consumption."⁴¹

The guidelines also state that to be humane a method of slaughter must "bring about rapid loss of consciousness and, ultimately, a complete loss of brain function."⁴² There are currently four acceptable methods of doing so: "1) physical disruption of brain activity (eg, blunt cranial trauma, penetrating captive bolt, gunshot), 2) hypoxia (eg, [nitrous or other gas]), 3) direct depression of neurons necessary for life function (eg, CO₂), or 4) epileptiform brain activity (eg, electric stunning)."⁴³ Professor Temple Grandin, a Professor in Animal

³⁹ 7 U.S.C. § 1902. There was (and still is) a separate section with somewhat different standards for religious, ritual slaughter. *See id.*

⁴⁰ AM. VETERINARY MED. ASS'N (AMVA), AVMA GUIDELINES FOR THE HUMANE SLAUGHTER OF ANIMALS: 2016 EDITION 5 (2016).

⁴¹ *Id.* However, the guidelines explicitly do not "venture into the morality of killing animals for food." *Id.*

⁴² *Id.*

⁴³ *Id.* at 7. The penetrating captive bolt (sometimes called a "cattle gun") is a device created for animal slaughter. A metal rod is contained in what resembles a gun or drill and is propelled by air pressure or a spring into the animal's head, creating catastrophic damage to its brain and (hopefully) rendering it insensate. *See id.* at 28.

Sciences at Colorado State University (whom many are familiar with because of the movie of the same name) serves on the AVMA Guidelines Committee but also publishes (and revises) numerous papers on best practices for animal stunning and slaughter.

II

LEGAL CHALLENGES TO EXECUTION METHODS USING ANIMAL SLAUGHTER AND EUTHANASIA GUIDELINES

A. Lethal Injection

Most of the lethal-injection challenges relying on animal euthanasia guidelines and practices involve the use of paralytics, which are forbidden in animal euthanasia. The U.S. Supreme Court was confronted with this argument in *Baze v. Rees*, when two Kentucky death-row inmates challenged that state's lethal-injection protocol and offered, as an alternative, a barbiturate-only method of execution. They "contend[ed] that Kentucky should omit the second drug[in the 'cocktail,'] pancuronium bromide, because it serve[d] no therapeutic purpose while suppressing muscle movements that could reveal [that the first drug did not work]." ⁴⁴ The Court, however, deferred to the finding of the state trial judge who found that the prevention of movement helped "preserv[e] the dignity of the procedure, especially where convulsions or seizures could be misperceived as signs of consciousness or distress." ⁴⁵

The Court made quick work of the inmates' argument that twenty-three states, including Kentucky, did not allow veterinarians to use "neuromuscular paralytic agent[s]" such as pancuronium bromide when "putting animals to sleep." ⁴⁶

⁴⁴ *Baze v. Rees*, 553 U.S. 35, 57 (2008). According to an Amicus Curiae brief filed on behalf of Critical Care Providers and Clinical Ethicists in *Baze*, pancuronium bromide "is a synthetic derivative of 'curare,' a poison used for centuries by indigenous people in South America to immobilize prey." Brief for Amici Curiae Critical Care Providers & Clinical Ethicists in Support of Petitioners, *Baze v. Rees*, 553 U.S. 35 (2008) (No. 07-5439), 2007 WL 3440945, at *6.

⁴⁵ *Baze*, 553 U.S. at 57. The Court also noted the trial court's finding that pancuronium stops respiration, hastening death. *Id.*

⁴⁶ *Id.* at 58. An amicus brief was filed on the Petitioner's behalf by several veterinarians who made the case that Kentucky's protocol failed to comply with minimum veterinary standards for human euthanasia of animals. See Brief for Drs. Kevin Concannon, Dennis Geiser, Carolyn Kerr, Glenn Pettifer & Sheilah Robertson as Amici Curiae in Support of Petitioners, *Baze v. Rees*, 553 U.S. 35 (2008) (No. 07-5439), 2007 WL 3440946, at *5. The brief asserted that the preferred method for euthanasia by veterinarians involves the use of a solution that contains a single drug, sodium pentobarbital as it "quickly places the patient

Chief Justice Roberts recast the petitioners' position as follows: "[i]f pancuronium bromide is too cruel for animals, the argument goes, then it must be too cruel for the condemned inmate."⁴⁷ Dismissing the comparison to animal euthanasia as more of a "debater's point," the majority opinion stated: "[w]hatever rhetorical force the argument carries . . . , it overlooks the States' legitimate interest in providing for a quick, certain death."⁴⁸ "That concern[,]," the Court noted, "may be less compelling in the veterinary context, and in any event other methods approved by veterinarians—such as stunning the animal or severing its spinal cord . . . —make clear that veterinary practice for animals is not an appropriate guide to humane practices for humans."⁴⁹

But why not? As Justice Stevens noted in his opinion, "[i]t is unseemly—to say the least—that Kentucky may well kill petitioners using a drug that it would not permit to be used on their pets."⁵⁰ But more than unseemly, he referenced the "general understanding among veterinarians that the risk of pain is sufficiently serious that the use of the drug should be proscribed when an animal's life is being terminated."⁵¹ He also rejected the majority's reliance on the "dignity" of the execution deeming it "woefully inadequate." He went on to say

[w]hatever minimal interest there may be in ensuring that a condemned inmate dies a dignified death, and that witnesses to the execution are not made uncomfortable by an

in a deep, surgical plane of anesthesia when injected intravenously" and then "causes the patient to move past a surgical plane of anesthesia to profound brain depression resulting in death." *Id.* at *4. The brief also maintained that two of the three drugs Kentucky uses "cause severe pain and suffering when administered to a patient who is conscious[, which is why] many states, including Kentucky, do not allow pancuronium bromide to be used to euthanize animals, and veterinary standards prohibit the use of potassium chloride unless a patient is unconscious." *Id.* at *5. Finally, the brief informed the Court that "[t]he risk of inappropriate depth of anesthesia [from the short-acting barbiturate] is aggravated by the fact that the Kentucky protocol does not allow for the assessment necessary under veterinary standards to determine whether a surgical plane of anesthesia has been reached[,] which is exacerbated by the use of pancuronium bromide, a neuromuscular blocking agent which is not used in animal euthanasia. *Id.* at 6–7.

⁴⁷ *Baze*, 553 U.S. at 58.

⁴⁸ *Id.*

⁴⁹ *Id.* (internal citations omitted). The Court also observed that in the Netherlands, where physician-assisted suicide is permitted, a muscle relaxant such a pancuronium is recommended. *Id.* However, as Justice Breyer noted in his concurrence, "in the Netherlands, physicians trained in anesthesiology are involved" in bringing an end to the patient's life. *Id.* at 112 (Breyer, J., concurring in the judgment)..

⁵⁰ *Id.* at 72–73 (Stevens, J., concurring in the judgment).

⁵¹ *Id.* at 71.

incorrect belief (which could easily be corrected) that the inmate is in pain, is vastly outweighed by the risk that the inmate is actually experiencing excruciating pain that no one can detect.⁵²

Both prior to and after *Baze*, there were a number of lower federal- and state-court cases comparing lethal injection, and not favorably, to animal euthanasia and slaughter. In *Abdur'Rahman v. Bredesen*, for example, a death-sentenced inmate challenged Tennessee's lethal-injection protocol arguing that it violated that state's animal euthanasia laws, which prohibited the use of a "neuromuscular blocking agent," in his case Pavulon, when euthanizing non-livestock animals.⁵³ The Tennessee Supreme Court rejected the claim based on the plain language of the statute, which, in its view, had no applicability to humans or the Department of Corrections.⁵⁴ In *Workman v. Bredesen*, the U.S. Court of Appeals for the Sixth Circuit rejected another challenge to Tennessee's three-drug protocol based on veterinary practices. In what many readers may find macabre, the Supreme Court requires that a death-sentenced inmate challenging a method of execution must offer an alternative that is acceptable to him/her.⁵⁵ Thus, in *Workman*, the Court rejected the inmate's proposal that Tennessee use a two-drug protocol without the paralyzing drug because doing so might result in "involuntary movement which might be misinterpreted as [seizures]," which "the State understandably wished to avoid out of respect for the dignity of the individual and presumably out of respect for anyone, including the inmate's family, watching the execution."⁵⁶ The Court also refused to accept a proposed one-drug protocol on the rationale that "it takes too long." In euthanizing animals, veterinarians use a barbiturate like sodium thiopental, but the barbiturate used on animals acts more slowly. The multi-drug protocol produced a more rapid death that was more appropriate for judicial executions.⁵⁷ Finally, in *Beardslee v. Woodford*, the Court noted its concern that a large number of states "either mandate the exclusive use of a sedative or expressly prohibit

⁵² *Id.* at 73.

⁵³ 181 S.W.3d 292, 312 (Tenn. 2005).

⁵⁴ *Id.* at 313.

⁵⁵ *Bucklew v. Precythe*, 587 U.S. 119, 134 (2019). In a logical non sequitur, the Court has said that because capital punishment is constitutional, there must be a constitutional method of carrying out the sentence. *Baze*, 535 U.S. at 47.

⁵⁶ 486 F.3d 896, 909 (6th Cir. 2007).

⁵⁷ *Id.*

the use of a neuromuscular blocking agent in the euthanasia of animals" because of the "risk that the animal might not be properly sedated by the barbiturate and therefore would be conscious of the severe pain of asphyxiation while being suffocated by the neuromuscular blocking agent."⁵⁸ However, it concluded that the death-sentenced inmate had not provided sufficient evidence of a significant risk of pain as required by the Eighth Amendment.⁵⁹

B. Judicial Electrocution

In recent challenges to judicial electrocution, attorneys for condemned inmates have also relied upon the research of and standards promulgated by the Animal Slaughter and Veterinary communities. For obvious reasons, it is impossible for researchers to conduct experiments on what happens when high voltage electricity enters the human body. There is some knowledge from industrial accidents, but no scientific research and evidence. Thus, judicial electrocution's basic premise, i.e., that it renders the person immediately insensate and thus brings about a rapid, painless death, is just a theory. And there are reasons to doubt its accuracy based on experiments done on animals.

The basic method of bringing about death during an electrocution execution has not changed significantly since William Kemmler was executed in New York in 1890. An electrode inside a helmet, usually made of or lined with copper and a wet sponge inserted, is attached to the condemned individual's skull. Another electrode, generally a copper cuff, is attached to the person's leg. An electrical conducting jelly is generally applied to the person's shaved head and leg. Then high-voltage electricity is sent into the person's body. According to electrocution's proponents, electricity will enter the brain through the skull inducing what is effectively a grand mal seizure (rendering the person insensate to pain), and then travel through the heart into the leg electrode (and then back and forth between the two electrodes as it is alternating current) causing fibrillation of the heart, bringing about death.⁶⁰

⁵⁸ 395 F.3d 1064, 1073 (9th Cir. 2005).

⁵⁹ *Id.* at 1075–76.

⁶⁰ See *State v. Mata*, 745 N.W.2d 229, 273 (Neb. 2008) ("The State's contention that electrocution does not subject prisoners to unnecessary pain depends on [Dr. Ronald] Wright's theories: the electric current would cause instantaneous and irreversible electroporation of brain neurons or thermal heating of neurons

The rub is the placement of the electrodes. Having one on the head and one on the leg is likely not sufficient, at least in a significant number of cases, to ensure that enough electricity enters the brain to produce the grand mal seizure. Why might this happen? The skull is thick and not nearly as good of an electrical conductor as the muscles of the face and rib cage. Thus, it is possible, if not likely, that much of the electricity will bypass the brain. And, if the person is not rendered insensate, they will experience extreme pain from the electricity, muscle contraction (tetany) brought about by the electrical current, and resulting air hunger because they can't breathe.⁶¹ The electricity will eventually kill them, but primarily by thermal heating as they will be literally cooked to death.

To the reader thinking this is speculation, it is not. Electricity is used both to stun and kill animals. And it can, in theory, be done effectively and painlessly.⁶² However, animal experiments have established that placing an electrode on the head and the leg will not get the job done.⁶³ The AVMA Guidelines for Humane Slaughter endorse the use of electric stunning but explicitly state: "One-step methods that apply electric current from head to tail, head to foot, or head to moistened metal plates on which the animal stands are unacceptable because they often bypass the

would reach the point of causing cell death within 4 to 5 seconds. If correct, either theory would mean instantaneous or near-instantaneous loss of brain function and consciousness."); Order Granting Declaratory and Injunctive Relief, *Owens v. Stirling*, CA No. 2021CP4002306, at *15 (S.C. Ct. Com. Pl. Sept. 6, 2022) ("According to Dr. [Ronald] Wright, when a person is electrocuted with very high voltage current, they are rendered instantaneously unconscious and cannot regain consciousness Dr. Wright could not, however, offer any affirmative proof to support his theory").

⁶¹ See *Mata*, 745 N.W.2d at 277 ("[T]he electric current . . . would excite multiple areas in the brain known to cause pain when electrically stimulated. Also, alternating current, which alternates in polarity [sixty] times per second and is used in electrocutions, is known to repetitively excite nerve tissue. [A] prisoner would experience extreme air hunger because the prisoner cannot breathe while his or her diaphragm is rigidly contracted."); Order Granting Declaratory and Injunctive Relief, *Owens*, CA No. 2021CP4002306, at *26 ("If the inmate is not rendered immediately insensate in the electric chair, they will experience intolerable pain and suffering from electrical burns, thermal heating, oxygen deprivation, muscle tetany, and the experience of high-voltage electrocution.").

⁶² AM. VETERINARY MED. ASS'N (AVMA), AVMA GUIDELINES FOR THE EUTHANASIA OF ANIMALS: 2020 EDITION 45–46 (2020).

⁶³ See TEMPLE GRANDIN, ELECTRIC STUNNING OF PIGS AND SHEEP 1 (2022) ("To produce instantaneous, painless unconsciousness, sufficient amperage (current) must pass through the animal's brain to induce an epileptic seizure. Insufficient amperage or a current path that fails to go through the brain will be painful for the animal. It will feel a large electric shock or heart attack symptoms, even though it may be paralysed and unable to move.") (internal citations omitted).

brain."⁶⁴ This research was relied upon by advocates, including the author of this Essay, in arguing that death in the electric chair was cruel and unusual punishment.⁶⁵ The Nebraska Supreme Court also noted that judicial electrocution had been rejected for killing "non-human animals" in its decision finding death in the electric chair to violate the state constitution in *State v. Mata*.⁶⁶ In this context, the animal guidelines cannot be dismissed as they were in the lethal injection context as a "debater's point."⁶⁷ Rather, the research and animal testing that produced the guidelines is empirical evidence (and the best evidence available) that state protocols for judicial execution are likely to lead to horrific deaths.

C. Nitrogen Hypoxia

Alabama recently released its (heavily redacted) protocol for executing prisoners using nitrogen gas.⁶⁸ No physicians were involved in its development (presumably because of ethical issues/concerns).⁶⁹ It has been criticized for a number of reasons, but the one relevant to this Essay is that it is not an acceptable method of euthanasia for most animals.⁷⁰ The AVMA Guidelines previously discussed reject the use of using nitrogen gas to being about animal death for almost all

⁶⁴ AVMA, *supra* note 40, at 36.

⁶⁵ The argument was relied upon by a state trial judge who found that death by electrocution violated the 8th Amendment corollary of the South Carolina Constitution. Order Granting Declaratory and Injunctive Relief, *Owens*, CA No. 2021CP4002306, at *26. That order is now on appeal and pending in the South Carolina Supreme Court.

⁶⁶ 745 N.W.2d 229 (Neb. 2008).

⁶⁷ As Professor Alper noted: Lethal injection procedures are not the product of any kind of scientific or medical review. There is also not any ongoing review or testing. As a result, lawyers and judges have looked to animal slaughter and euthanasia because it is subject to constant re-examination. Ty Alper, *Anesthetizing the Public Conscience: Lethal Injection and Animal Euthanasia*, 35 *FORDHAM, URB. L. J.* 817, 834 (2008).

⁶⁸ State of Alabama's Motion to set an Execution Date, *Smith v. Alabama*, No. 1000976 (Ala. Aug. 25, 2023) <https://www.alabamaag.gov/wp-content/uploads/2023/08/08.25.23-Kenneth-Smith-Motion-to-set-Execution-Date.pdf> [<https://perma.cc/B3N3-S68M>]; Mike Cason, *Here is How Alabama Plans to Carry Out First Nitrogen Hypoxia Executions in the Nation*, *AL.COM* (Aug. 28, 2023), <https://www.al.com/news/2023/08/here-is-how-alabama-plans-to-carry-out-first-nitrogen-hypoxia-executions-in-the-nation.html> [<https://perma.cc/BKE3-EALC>].

⁶⁹ Kim Chandler, *Alabama Defends Untested Nitrogen Execution Method, But Experts Doubt Claims of Painlessness*, PBS (Jan. 23, 2024), <https://www.pbs.org/newshour/nation/alabama-defends-untested-nitrogen-execution-method-but-experts-doubt-claims-of-painlessness> [<https://perma.cc/JYX9-KTRD>].

⁷⁰ AVMA, *supra* note 62, at 28.

mammals as it creates an environment devoid of oxygen that is “distressing for some species.”⁷¹

III

SOME COMMON THEMES IN THE TWO PRACTICES

In the remaining sections of this Essay, I will explore a number of common themes that emerge from examining the manner in which we execute human and slaughter non-human animals.

A. Protocols/Practices are Primarily for Participants/Observers

It is true, as others have noted with some irony, that animal slaughter is more heavily regulated in the United States than capital punishment.⁷² However, this is not likely a result of greater concern for animals than humans, but rather because it produces food for hundreds of millions of Americans.⁷³ The protocols and practices of both, however, have other, and some would say more important, goals than making death more humane. Many of them are in place for the spectators/observers

⁷¹ *Id.*; see also Kevin M. Morrow, *Execution by Nitrogen Hypoxia: Search for Scientific Consensus*, 59 JURIMETRICS J. 457, 483 (2019) (noting that The World Society for the Protection of Animals has stated that nitrogen gas is unacceptable because “animals may experience distressing side effects prior to loss of consciousness and there are more humane alternatives”).

⁷² Deborah W. Denno, *The Lethal Injection Quandary: How Medicine Has Dismantled the Death Penalty*, 76 FORDHAM L. REV. 49, 76 (2007) (“The methods for euthanizing animals require substantially more medical consultation and concern for humaneness than the techniques used to execute human beings.”); see also Jeff Welty, *Different Endings: Lethal Injection, Animal Euthanasia, Humane Slaughter and Unregulated Slaughter*, 3 GOLDEN GATE UNIV. ENV’T L.J. 61, 64 (2009). Welty and other have also noted that there is a hierarchy of slaughter that is not in fact based on biology/intelligence etc., but rather on their relationship to humans. Pigs for example, are generally thought to be more intelligent than dogs, but we allow pigs to be slaughtered in ways that would never happen with a dog. This seems to be true on the consumer side as well. In recent decades, chicken consumption has exploded with the leading theory being that people feel less bad about eating them. Fitzgerald, *supra* note 33, at 64 (noting explosive growth in chicken consumption because people feel less bad about eating chickens than beef or pork).

⁷³ Although some observers (including Professor Colb) have noted that the animals slaughtered are completely “innocent” while executed prisoners were found guilty of committing murder. It was for this reason that she (and Professor Dorf) endorsed the proposition that the moral case for barring animal slaughter is stronger than the case for ending the death penalty. Colb & Dorf, *supra* note 4, at 8. In the interest of full disclosure, I do not agree with that particular argument, for reasons valuing human life more than that of animals, a proposition with which I know they do not agree.

rather than for the sole purpose of bringing about a more humane death.

The best example is the use of the "neuromuscular blocking agent"/paralytic drug in lethal injection. Its use is redundant in the protocol except for the fact that it helps maintain the façade that the person drifted painlessly off to sleep. Thus, while it may mask significant problems in an actual execution, it does spare the witnesses from being exposed to the twitching and gasping that can accompany even a painless death.⁷⁴ The same is true of other aspects of execution protocols. Executed prisoners in most states, for example, also have their rectum packed and bands placed around their penis (assuming they are men). This is to prevent them from defecating and urinating on themselves during the execution event. While this may be in part for their dignity, that practice too is largely so the witnesses will not have to smell (or see) their waste.⁷⁵

The same can be said of requiring a person undergoing electrocution to wear a hood during a judicial electrocution. Remember that (in theory), the initial surge of high voltage electricity induces a grand mal seizure rendering the person insensate before death is induced by ventricular fibrillation. If the seizure is not induced, then, even electrocution's supporters agree that the person will experience excruciating pain, but not be able to say anything because their muscles, including their vocal chords, will be in tetany due to the current flowing through their body.⁷⁶ When animals are "stunned" with electricity, someone (again in theory) who has been trained to determine by observing the animal's facial, eye and other bodily movements whether the grand mal seizure has occurred gives the go ahead to kill only when it has definitely been induced.⁷⁷ This could easily be done in a judicial electrocution, but it would

⁷⁴ Alper, *supra* note 67, at 823.

⁷⁵ One of my former clients, who was removed from death row and resentenced to life, was required by correctional staff to clean the bodies and the execution chamber after a prisoner was put to death because Department of Corrections employees did not want to do it. He did not complain, and did it willingly, as he said that he would treat their remains with more respect than staff.

⁷⁶ Order Granting Declaratory and Injunctive Relief, *Owens v. Stirling*, CA No. 2021CP4002306, at *15 (S.C. Ct. Com. Pl. Sept. 6, 2022) (The expert for the State of South Carolina "acknowledge[s] that if a person survived and remained sensate after the first two applications of current in [the] electric chair, they would experience considerable pain and suffering.").

⁷⁷ AVMA, *supra* note 40, at 46; see also AMVA, *supra* note 62, at 46 (Must observe animal for signs of consciousness which include "rhythmic breathing, righting reflex, vocalization, eyeblink, and tracking of a moving object").

require not using a hood, and thus the spectators would see the individual's facial contortions during the execution event.

State protocols for the firing squad have similar flaws. When an animal is executed using a firearm it is shot in the brain as that brings about immediate disruption of brain activity rendering the animal insensate.⁷⁸ No American firing squad protocol does so. All propose (and in the few modern-era firing squad executions have used) multiple shots to the heart. For example, South Carolina's new firing squad protocol has three shooters using rifles and fragmenting bullets firing from a distance of fifteen feet.⁷⁹ At the trial challenging the constitutionality of the protocol, the experts on both sides agreed that it would take fifteen to thirty seconds for the person to die and that they would feel excruciating pain when the bullets enter the chest wall, fracturing ribs, etc.⁸⁰ While the efficacy of a single shot to the head versus shots to the chest is clear, it has never been used or proposed presumably due to the manner in which it would disfigure the body and the mere spectacle of having a state executioner fire into another human beings' head at point blank range.⁸¹

On the animal slaughter side, we have the example of using carbon dioxide to stun and slaughter pigs. A very common method of stunning, and in some instances killing pigs is to load a group of them on to a "gondola" (a metal platform) and

⁷⁸ AVMA, *supra* note 40, at 29 ("In applying a gunshot to the head for the purposes of slaughter for captive animals, the firearm should be aimed so that the projectile enters the brain, causing instant loss of consciousness. . . . [T]he goal being penetration and destruction of brain tissue without emergence from the contralateral side of the head.").

⁷⁹ Order Granting Declaratory and Injunctive Relief, *Owens*, CA No. 2012CP4002306 at *6, *23.

⁸⁰ *Id.* at *22 ("[I]t is clear that the firing squad causes death by damaging the inmate's chest, including the heart and surrounding bone and tissue. This is extremely painful unless the inmate is unconscious which, according to Drs. Arden and Alvarez, is unlikely. Rather, the inmate is likely to be conscious for a minimum of ten seconds after impact. . . . During this time, he will feel excruciating pain resulting from the gunshot wounds and broken bones. This pain will be exacerbated by any movement he makes, such as flinching or breathing."). The AVMA Euthanasia Guidelines state that "A properly placed gunshot can cause immediate insensibility and a humane death. . . . In applying gunshot to the head as a method of euthanasia for captive animals, the firearm should be aimed so that the projectile enters the brain, causing instant loss of consciousness." On the other hand, "a gunshot to the heart or neck does not immediately render animals unconscious." AVMA, *supra* note 62, at 42.

⁸¹ The AVMA Euthanasia Guidelines acknowledge this, stating that a gunshot is "aesthetically unpleasant for many" and "should not be used for routine euthanasia of animals in animal control situations, such as municipal pounds or shelters." *Id.* at 44.

lower it (and them) into a chamber of carbon dioxide gas.⁸² One stated reason for doing so is that other forms of stunning require pigs to move into a "kill line" in single file. But this increases stress among the animals at it is not how the normally move (they tend to do so side by side). The use of the gondola is also viewed as cost efficient as it allows groups of animals to be stunned and slaughtered at the same time. On the other side of the ledger, it takes significantly more time for the pigs to lose consciousness (or "loss of posture," which is the animal slaughter term) than do other methods. Also, some pigs have a "stress gene" and react very adversely to the gas.⁸³ However, another benefit, and probably the dominant one, is that using carbon dioxide minimizes the need for "human interaction," which reduces the potential for injury and also the emotional toll on workers of individually executing animals. This point was made clear during my preparation for oral argument in the South Carolina execution methods litigation. As part of the preparation I (and my co-counsel) had a telephone consultation with a professor at a large research university who consults with pork processing plants. He informed us that the workers significantly prefer carbon dioxide slaughter because "they don't have to do it" as opposed to other methods which require that they stun and kill the animals individually in a much more hands-on manner. Both captive bolt and electrical stunning, for example, induce instantaneous unconsciousness.

Additionally, supporters of both capital punishment and animal slaughter have often been in the vanguard seeking more humane death. The Governor of New York who created the commission to find a more humane method of punishment that gave us the electric chair was a staunch proponent of the death penalty. Other states began to embrace electrocution in the late 1800's during a period when some states decided to abolish capital punishment altogether. The brutality inherent in and the number of "botched" hangings was a contributing factor in some of the jurisdictions which did away with the practice altogether. The proliferation of lethal injection as the dominant method of execution increased after a series of horribly botched judicial electrocutions referenced earlier caught the public's attention. The Supreme Court, which had previously shown little interest in determining whether death in

⁸² TEMPLE GRANDIN, CARBON DIOXIDE STUNNING OF PIGS 1 (2022).

⁸³ *Id.* Dr. Grandin recommends using genetic breeding to eliminate the stress gene, making slaughter more "humane" and reducing stress on workers. *Id.*

the electric chair was cruel and unusual punishment, granted certiorari to decide the issue. Because Florida wished to keep executions going, it quickly passed a law authorizing lethal injection as the primary method of execution and informed the Court that it would use that method going forward. The Supreme Court then dismissed the petition as moot.⁸⁴ States continue to tinker with protocols, create commissions to review execution protocols, and search for new even more humane methods of execution—e.g.—Alabama’s development of nitrous gas, especially after a botched one, for the purpose of making the public more comfortable with executions.

As Professor Colb and Dorf discussed in two of their books,⁸⁵ *MIND IF I ORDER THE CHEESEBURGER* and *BEATING HEARTS*, savvy industry leaders have supported humane slaughter laws to increase public acceptance of eating meat and to make people feel better about doing so. The slaughter industry even got a public relations boost for advocating for more humane slaughter in response to consumer outrage over leaked videos from slaughterhouses. They also point out that efforts at reform, both for animal treatment prior to and during slaughter, help promote the acceptance of eating meat.⁸⁶

Another cold reality is that a central reason that “Big Meat” is interested in promoting humane slaughter has to do with meat quality. Professor Grandin’s monograph *ELECTRIC STUNNING OF PIGS AND SHEEP* states in regard to electric stunning that electrode placement is critical to rendering the animal insensate and also notes that “[m]eat damage can be reduced by firm placement of the electrodes and avoiding sliding or intermittent contact.”⁸⁷ Another paper she authored under the auspices of the American Meat Institute, *RECOMMENDED ANIMAL HANDLING GUIDELINES & AUDIT GUIDE: A SYSTEMIC APPROACH TO ANIMAL WELFARE*, notes that “proper handling procedures are not only important for animal well-being,” but there are also “many meat quality benefits” to be gained “through careful,

⁸⁴ *Bryan v. Moore*, 528 U.S. 1133 (2000).

⁸⁵ SHERRY F. COLB, *MIND IF I ORDER THE CHEESEBURGER?* 143 (Lantern Press 2013); SHERRY F. COLB & MICHAEL C. DORF, *BEATING HEARTS: ABORTION AND ANIMAL RIGHTS*, 143–44 (Columbia Univ. Press 2016) [hereinafter *BEATING HEARTS*].

⁸⁶ They also make the argument that animal welfare reform efforts let “good people” off the hook by putting the blame on the industry and making people feel better about supporting efforts to make animal death humane. COLB & DORF, *BEATING HEARTS*, *supra* note 85, at 146.

⁸⁷ GRANDIN, *supra* note 63, at 2.

quiet animal handling.”⁸⁸ The monograph goes on to say that “[c]areful, quiet handling during the last few minutes before slaughter can help improve meat quality. Research shows that excessive use of electric prods in the stunning chute increases toughness in beef and lowers meat quality in pork.”⁸⁹

Professors Colb and Dorf summed it up appropriately: “killing kindly is not even what the law requires or promotes . . . [i]nstead . . . execution and [animal] slaughter aim more for the appearance of humaneness than for humaneness itself.”⁹⁰

B. Speed Kills (Just Not Well or “Humanely”)

A systemic problem with both judicial executions and animal slaughter is the speed at which the proponents of both hope to accomplish death. Starting with lethal injection, remember that the Chief Justice in *Baze* mentioned the state’s interest in a “quick, certain death.” But speed increases the likelihood of botched executions. For example, when the three-drug regimen is used, the chemicals are most often injected immediately one after another without a trained individual checking to make sure that the individual strapped to the gurney is in fact unconscious. This could easily be remedied; it would just take more time. Other types of medications, some oral, could also be used to ensure the individual is insensate, but it takes more time for those drugs to take effect. In *Workman v. Breeden*, discussed previously, a panel of the Sixth Circuit rejected a proposed one drug protocol with the rationale being that “it takes too long.” The court acknowledged that the use of a barbiturate, as is done when putting animals down, could eliminate some of the risks of the three drug “cocktail,” but the “barbiturate used on animals acts more slowly” and the state has a legitimate interest in bringing about a “more rapid death.”⁹¹ And some courts have stated specifically that any modifications would simply “take too long.” Thus, many states persist, with the Supreme Court’s approval, using protocols that have a heightened risk of not bringing about a painless (or as painless as possible) death.

⁸⁸ TEMPLE GRANDIN, RECOMMENDED ANIMAL HANDLING GUIDELINES & AUDIT GUIDE: A SYSTEMIC APPROACH TO ANIMAL WELFARE 5 (2021).

⁸⁹ *Id.* at 8. A more detailed discussion of Professor Colb’s disagreements with Grandin’s efforts on behalf of more humane slaughter can be found in COLB, MIND IF I ORDER THE CHEESEBURGER, *supra* note 85, at 145–48.

⁹⁰ Colb & Dorf, *supra* note 4, at 12.

⁹¹ *Workman v. Breeden*, 486 F. 3d 896, 909 (6th Cir. 2007).

The desire for speed similarly plagues judicial electrocution. When animals are slaughtered using electricity, the electrodes are attached on both sides of the animal's head to insure that enough electric current enters the brain to induce a grand mal seizure which will keep the animal from feeling pain. Once that occurs, the animal is then killed by either moving the electrode to the animal's heart to induce ventricular fibrillation or using another method (e.g., cutting its throat) to bring about death. But that is a two-step process. When a human being is executed, as has previously been discussed, one electrode is attached to the head and the other to the leg so that death can be brought about with one flip of a switch. This creates the very real risk of an excruciating death because electricity follows the path of least resistance and not enough current may enter the brain to induce the necessary grand mal seizure.⁹² And, for that reason, placement of electrodes on the head and foot/hof is strictly forbidden in animal slaughter.

Speed also makes humane slaughter impossible. Given the public demand for meat, the number of animals killed is staggering. As Professor Colb laid out in her 2014 Verdict column, more than fifty-five billion land animals worldwide are killed a year, which comes out to around 150 million animals slaughtered per day. Thus, speed is essential, and, in many slaughterhouses, the goal is to end the life of an animal every twelve seconds.⁹³ It is costly to shut down the "production" line, and as slaughterhouses have increased productivity, accidents and injuries for both workers and animals in the production line have increased. Incidents of food poisoning have also increased.⁹⁴ Again, much of that could be remedied by slowing

⁹² *State v. Mata*, 745 N.W.2d 229, 271 (Neb. 2008) ("The court found that the skull would limit how much current went to the brain [T]he body is a large mass and humans are not predictable conductors."); Order Granting Declaratory and Injunctive Relief, *Owens v. Stirling*, CA No. 2021CP4002306, at *11 (S.C. Ct. Com. Pl. Sept. 6, 2022) ("[B]ecause the human skull is significantly more resistive than the skin, the muscles, and the connective tissue around the head, when current is applied to the top of the head, the vast majority does not enter the brain. Rather, it flows from the head electrode to the leg electrode. It does not cause immediate loss of consciousness but causes severe pain due to tetany, or full contraction, of the body's skeletal muscles.").

⁹³ Colb, *supra* note 3 (referencing a book, TIMOTHY PACHIRAT, EVERY TWELVE SECONDS: INDUSTRIALIZED SLAUGHTER AND THE POLITICS OF SIGHT (2011), that describes the slaughter of cows).

⁹⁴ Fitzgerald, *supra* note 33, at 64. Increasing speed of production in the United States makes the contamination of the meat during the process more likely. *Id.* There has been a sharp increase in food poisoning deaths as speed has increased as well as an increase in the number of worker accidents and animals not dying as quickly and painlessly as possible. *Id.*

things down, but the desire to maximize profits (which requires speed) is the goal at most commercial slaughterhouses.⁹⁵ Thus, in the slaughter context, the AVMA Euthanasia Guidelines are also ignored. Those Guidelines state: "As a general rule, a gentle death that takes longer is preferable to a rapid, but more distressing death."⁹⁶

C. Keeping Killing Hidden from Public View

Up until the latter half of the nineteenth century, executions in the United States were local and public events. The colonies adopted the English tradition of public executions, where a hanging often drew a large, boisterous crowd, sometimes numbering in the thousands.⁹⁷ Publicity was initially considered to be a virtue as it increased (so it was believed) the deterrent function of capital punishment. But, in the 1830s, as the abolitionist movement began to gather some momentum, capital punishment's supporters advocated for making executions private affairs due to a fear that well-publicized botched hangings might further fan the flames of abolition.⁹⁸ Several northeastern states passed statutes which limited the number of witnesses and required local law enforcement to provide an enclosed area for the execution shielded from public view. Many states in the West and Midwest followed suit. But, the southern states were much more reluctant to outlaw public executions because of the widespread belief among white politicians that the citizenry demanded it, especially in rape cases involving white victims and Black defendants.⁹⁹ However, as state department of corrections took over the business of executing citizens, executions moved from county jails to state prisons and were largely hidden from public view.

The last public execution in the United States took place on August 14, 1936, in Owensboro, Kentucky, when Rainey Bethea, a twenty-two year old Black man, was put to death for the rape of a seventy-year old white widow.¹⁰⁰ News reports

⁹⁵ See Jessica A. Chapman, Ingrid Seggerman & Delcianna J. Winders, *Slaughterhouse Deregulation: A View of the Effects on Animals, Workers, Consumers, and the Environment*, 50 BRIEF 44, 44–55 (2021).

⁹⁶ AVMA, *supra* note 40, at 22.

⁹⁷ G. Mark Mamantov, *The Executioner's Song: Is There a Right to Listen?*, 69 VA. L. REV. 373, 375 (1983).

⁹⁸ *Id.*

⁹⁹ Blume, *supra* note 7, at 1825.

¹⁰⁰ *The Last Hanging: There Was a Reason They Outlawed Public Executions*, N.Y. TIMES, (May 6, 2001), <https://www.nytimes.com/2001/05/06/weekinreview/>

described it as a “Roman Holiday carnival” type atmosphere with spectators (many of whom were described as “alcohol marinated”) feasting on hot dogs and lemonade and straining to get a clear view of the gallows.¹⁰¹ According to some news accounts (although disputed by others), bedlam ensued when several hundred observers rushed the gallows after Bethea’s final drop looking for souvenirs and ripped off pieces of the black hood that was placed on Bethea’s head.¹⁰² Not long thereafter, the Governor of Kentucky signed legislation eliminating public executions in the state, and the era of public executions came to a close.¹⁰³

Today, executions take place largely in private, usually inside a prison with a small number of approved witnesses, often including a member (or a few) of the press, law enforcement officers and prosecutors who participated in the investigation and trial, members of the victim’s family, and defense counsel. It is not unusual for there to be conflicting versions of the manner in which the execution was carried out and whether the person put to death died a painless, peaceful death.¹⁰⁴

Animal slaughter followed a similar path. The Chicago slaughterhouses, for example, were in a densely populated area of the city. There were public tours, not only of the areas in which the meat was processed, but also of the areas where animals were killed, exsanguinated, and skinned. Beginning in the late 1800’s, however, animal slaughter and processing plants were moved to more rural areas outside of public view and were no longer open to the public. As other scholars have noted, moving them out of city centers was done to shield animal slaughter from the public and thus reduce its contemplation of the way in which the animals that provide their food are

the-last-hanging-there-was-a-reason-they-outlawed-public.html [https://perma.cc/8DHA-MYZE] [hereinafter *The Last Hanging*].

¹⁰¹ Blume, *supra* note 7, at 1826.

¹⁰² *Id.*

¹⁰³ *The Last Hanging*, *supra* note 100.

¹⁰⁴ William LeCroy was executed with a single lethal injection of pentobarbital on September 22, 2020. *Executioners Say Inmates’ Final Moments Were ‘Comfortable’ But Witnesses Disagree*, ASSOCIATED PRESS (Feb. 18, 2021), <https://www.9news.com.au/world/us-death-row-executions-debate-conflicting-accounts-witnesses-officials/c9526489-7f6b-4199-82f5-f52fa868f8ea> [https://perma.cc/T3TD-9SZ6]. The executioner said, “he took a deep breath and snored, it appeared to me that LeCroy was in a deep, comfortable sleep.” *Id.* Other witness accounts say that LeCroy’s “stomach area heaved uncontrollably” for about a minute. *Id.* Similarly, a spiritual adviser in Corey Johnson’s execution chamber, recounted the moments after the injection: “Corey said his hands and mouth were burning.” *Id.*

killed.¹⁰⁵ As Amy Fitzgerald stated, there is an unwillingness among the public to think about how their meat is produced, and "great pains are taken so that people are not reminded of the origins of their meat while they are eating it."¹⁰⁶

It appears that those responsible for killing human and nonhuman animals prefer that the public, in general, has as little information about what takes place behind the closed doors of the execution "death house" and the "kill box" as possible.¹⁰⁷

D. Killing Takes a Toll on the Killers

There are a number of anecdotal reports, and some academic studies, addressing the effects of participating in executions and working in a slaughterhouse. Let us begin with prison staff and executions. Many correctional officers who have participated in executions describe symptoms of post-traumatic stress disorder (PTSD) similar to those reported by combat veterans.¹⁰⁸ One officer, for example, began crying and shaking uncontrollably when "the eyes of all the inmates he had executed began flashing before him."¹⁰⁹ According to Rachael MacNair, the author of *PERPETRATION-INDUCED TRAUMATIC STRESS: THE PSYCHOLOGICAL CONSEQUENCES OF KILLING*, officers reported

¹⁰⁵ Fitzgerald, *supra* note 33, at 59; see also COLB & DORF, *BEATING HEARTS*, *supra* note 85, at 153.

¹⁰⁶ Fitzgerald, *supra* note 33, at 59.

¹⁰⁷ Another similarity, which I will only note briefly, is the development of jargon to describe various aspects of both practices. For example, the place where prisoners are executed is generally referred to in somewhat neutral terms. In South Carolina, for example, it is designed as the "Capital Punishment Facility." Inmates, however, including those on death row, call it the "death house." The same is true in the animal slaughter industry. The place where the animals are slaughtered is referred to as the "kill box." The two-step process of killing animals has also come to be known as "stun and stick."

¹⁰⁸ As one former Commissioner of the department of Corrections in several death penalty states who was also a combat veteran noted however, there is one major difference; "in my military experience . . . [t]he enemy was an anonymous, armed combatant who was threatening my life. In an execution, the condemned prisoner is a known human being who is totally defenseless when brought into the death chamber." Allen L. Ault, *The Hidden Victims of the Death Penalty: Correctional Staff*, WASH. POST (July 31, 2019), <https://www.washingtonpost.com/opinions/2019/07/31/hidden-victims-death-penalty-correctional-staff/> [<https://perma.cc/TB9N-GS6E>].

¹⁰⁹ Robert T. Muller, *Prison Executioners Face Job-Related Trauma*, PSYCH. TODAY (Oct. 11, 2018), [https://www.psychologytoday.com/us/blog/talking-about-trauma/201810/prison-executioners-face-job-related-trauma#:~:text=Despite%20such%20measures%2C%20guards%20can,traumatic%20stress%20disorder%20\(PTSD\)](https://www.psychologytoday.com/us/blog/talking-about-trauma/201810/prison-executioners-face-job-related-trauma#:~:text=Despite%20such%20measures%2C%20guards%20can,traumatic%20stress%20disorder%20(PTSD)) [<https://perma.cc/MHD9-KU8R>].

depression, inability to sustain relationships, and personality changes.¹¹⁰ Two former Corrections Officers (CO)s from my home state of South Carolina reported developing obsessive compulsive behaviors and experiencing nightmares.¹¹¹ One of the men, Craig Baxley, was required to participate in ten executions due to staffing shortages and in a number of them he pushed the switch that sent lethal injection drugs into the person being executed. Baxley stated: “Every single one of the death certificates says state-assisted homicide And the state was me.”¹¹² Another study referred to the prevalence of moral disengagement in order to perform actions that ran counter to their “individual values and personal moral standards.”¹¹³ Various forms of the following statement were common among the COs who participated in executions: “It’s not an easy task to do. If I had known what I had to go through as an executioner, I wouldn’t have done it. You can’t tell me I can take the life of people and go home and be normal.”¹¹⁴ Many former COs who participated in executions no longer support capital punishment.¹¹⁵

Most Departments of Corrections in states with death rows at least implicitly acknowledge the psychological toll through procedures governing executions. The COs who oversee condemned inmates on a regular basis are not, in most

¹¹⁰ See RACHEL M. MACNAIR, PERPETRATION-INDUCED TRAUMATIC STRESS: THE PSYCHOLOGICAL CONSEQUENCES OF KILLING 31–42 (2005).

¹¹¹ The two men sued the Department of Corrections, maintaining that they were coerced into carrying out executions and were not given any debriefing or counseling to help them deal with the emotional effects of participating in state sponsored homicide. The suit was unsuccessful. Meg Kinnard, *Judge Nixes Executioner’s Suit*, THE POST AND COURIER (Dec. 8, 2016), https://www.postandcourier.com/politics/judge-nixes-executioners-suit/article_d53e37af-0bc0-53a9-b143-71161b8b291b.html [<https://perma.cc/LR3Z-Z7Q3>].

¹¹² Chiara Eisner, *Carrying Out Executions Took a Secret Toll on Workers—Then Changed Their Politics*, NPR (Nov. 16, 2022), <https://www.npr.org/2022/11/16/1136796857/death-penalty-executions-prison> [<https://perma.cc/BR6S-7TH8>].

¹¹³ Tolly Moseley, *The Enforcers of the Death Penalty*, THE ATLANTIC (Oct. 1, 2014), <https://www.theatlantic.com/health/archive/2014/10/the-enforcers-of-the-death-penalty/379901> [<https://perma.cc/DB3Y-YKBG>].

¹¹⁴ Muller, *supra* note 109.

¹¹⁵ See, e.g., Eisner, *supra* note 112. It is important not to overclaim here. In my experience visiting death row, some COs maintain they are not affected at all by participating in executions, feel that the death row inmate deserved the ultimate punishment, and are strong supporters of the death penalty.

jurisdictions, involved in executions. A separate team, often referred to as the "death squad," does that.¹¹⁶

The reports are strikingly similar among slaughterhouse workers. In many cases, workers report symptoms of PTSD (or one researcher refers to it as "Perpetrator-Induced Traumatic Syndrome").¹¹⁷ One former worker stated: "[o]ne skill that you master while working at an abattoir is disassociation. You learn to become numb to death and to suffering."¹¹⁸ Another made a similar observation: "Me, how I compartmentalized it, was: I'm putting food on people's plates . . . [and] I would rather it be me—somebody who's more humane—working with animals than, say, somebody who likes kicking and hitting them."¹¹⁹ One "hog sticker" (a worker that cuts pigs throats) reported "[a]nother thing that happens is that you don't care about people's pain anymore. I used to be very sensitive about people's problems—willing to listen. After a while, you become desensitized."¹²⁰ Emotions are bottled up with most workers believing that it was inappropriate to show weakness.¹²¹

The AVMA Guidelines for the Humane Slaughter of Animals recognize as a separate source of trauma the psychological toll inflicted on workers who are also responsible for providing husbandry to the animals they kill. "Appropriate oversight of the psychological well-being of slaughter employees is paramount to

¹¹⁶ PRISON GUARDS AND THE DEATH PENALTY, PENAL REFORM INTERNATIONAL (2015). In another example from South Carolina, the DOC moved death row from Broad Reiver Correctional Institution where the "capital punishment facility" is located to Lieber Correctional Institution because "it was too hard on the officers" to have to kill inmates they knew.

¹¹⁷ Ashitha Nagesh, *Confessions of a Slaughterhouse Worker*, BBC NEWS, (Jan. 6, 2020), <https://www.bbc.com/news/stories-50986683> [<https://perma.cc/LT4Z-WZRB>]; see also Fitzgerald, *supra* note 33, at 64, 66 (noting that modern slaughterhouses have an exceptionally high employee turnover rate and that slaughterhouse workers, like those involved in executions, have perpetration induced stress).

¹¹⁸ Nagesh, *supra* note 117. The same worker also referenced the smell: "[t]he odour of dying animals surrounds you like a vapour." *Id.*

¹¹⁹ Jamie Lee Taete, *How Do You Sleep at Night? An Interview with a Slaughterhouse Worker*, MIC (Mar. 17, 2022), https://www.mic.com/impact/how-do-you-sleep-at-night-interview-with-a-slaughterhouse-worker#goog_rewarded [<https://perma.cc/CK55-NYH7>].

¹²⁰ Emily Moran Barwick, *The Psychological Toll of Killing Animals: PTSD in Slaughterhouse Workers*, BITE SIZE VEGAN.ORG, <https://bitesizevegan.org/ptsd-in-slaughterhouse-workers/> [<https://perma.cc/QD5L-FND8>] (last modified June 19, 2023); see also COLB & DORF, BEATING HEARTS, *supra* note 85, at 163 (describing "numbness" that develops in slaughterhouse workers).

¹²¹ Barwick, *supra* note 120. This individual, similar to one of the correctional officers mentioned above, described seeing the severed heads of dead animals and feeling like hundreds of pairs of eyes were watching him. Nagesh, *supra* note 117.

mitigate guilt, distress, sadness, fatigue, alienation, anxiety.”¹²² It is referred to as the “caring-killing paradox.”¹²³

COs, like many slaughterhouse workers, often take the jobs because they have few other options. Both sets of workers generally come from poor socio-economic backgrounds. Both are low-paying stressful jobs.¹²⁴ One significant difference, which makes slaughterhouse work more traumatic, is the risk of personal danger. Slaughterhouses have been described as “brutal, dangerous places to work,” and injuries to the workers both from animals or machinery/equipment are common.¹²⁵

CONCLUSION

I am sorry that Professors Colb and Dorf were never able to complete *THE MACHINERY OF DEATH*. I have no doubt that, like their other work, both individually and as a formidable team, it would have been a compelling read. In this Essay, I have used my experience as an attorney representing condemned persons on death row and as a legal academic who studies the death penalty to describe some of the similarities in the two practices from a different perspective than theirs, which viewed the practices more from an animal rights than a capital punishment lens. However, despite the difference in starting points, we each stumbled on a number of the same similarities, and, at the end of the day, we agree that humane slaughter and execution are oxy-morons.

¹²² AVMA, *supra* note 40, at 9

¹²³ *Id.*

¹²⁴ Jeff Welty, *Humane Slaughter Laws*, 70 L. & CONTEMP. PROBS. 175, 193 (2007) (being a slaughterhouse worker in the United States is a low-wage, low-status, high-turnover profession. Employers have little incentive to provide training to employees, who on average, leave after about a year).

¹²⁵ Nagesh, *supra* note 117.