

# Lethality and deterrence in affairs of honor<sup>1</sup>

Tom Ahn<sup>2</sup>

Naval Postgraduate School

Jeremy Sandford<sup>3</sup>

Compass Lexecon

Paul Shea<sup>4</sup>

Bates College

**October 19, 2021**

## **Abstract**

Duels remained an important and surprisingly common means of settling disputes in the American South until after the Civil War. We examine two historical puzzles. First, why did dueling persist as a preferred tool to resolve conflicts in the South? Second, why did duelers use relatively inaccurate weapons when deadlier weapons were available? We find the following results. One, when the public views dueling as an appropriate means of mitigating the effects of libel, then it encourages socially desirable behavior such as reduced libel and more moderate behavior. Two, a sufficiently high mortality rate may deter libel without resulting in many dueling deaths. Third, if mortality rates are too high, dueling is no longer an effective institution.

*JEL Classification:* C72, K40, N41.

*Keywords:* dueling, deterrence, conflict resolution, historical institutions

*Word Count:* 10,014

---

<sup>1</sup> Two online appendices are hosted at [http://www.jasandford.com/dueling\\_appendices.pdf](http://www.jasandford.com/dueling_appendices.pdf). We refer to these throughout as Appendix A and Appendix B. We thank seminar participants at the Naval Postgraduate School, University of Kentucky Law School, University of Kentucky Economics department, University of South Carolina, and the IIOC.

<sup>2</sup> sahn1@nps.gov

<sup>3</sup> jsandford@compasslexecon.com

<sup>4</sup> pshea@bates.edu

# 1 Introduction

Years later, reflecting on the Southern “Code” of dueling, [U.S. senator from Maryland] Charles Gibson maintained that as wicked as the code was, the vulgar public behavior following the demise of the practice was worse still. “The code preserved a dignity, justice and decorum that have since been lost,” he argued, “to the great detriment of the professions, the public and the government. The present generation will think me barbarous but I believe that some lives lost in protecting the tone of the bar and the press, on which the Republic itself so largely depends, are well spent.”

—Team of Rivals, Doris Kearns Goodwin, pg. 65

I do further solemnly swear (or affirm) that [...] I, being a citizen of this States, have not fought a duel with deadly weapons within this State nor out of it, nor have I sent or accepted a challenge to fight a duel with deadly weapons, nor have I acted as second in carrying a challenge, nor aided or assisted any person thus offending, so help me God.

—Kentucky oath of office, as of October 19, 2021

Dueling was a preferred means of conflict resolution among gentlemen in the Antebellum American South. While it is impossible to precisely quantify the number of duels which took place, we have constructed a data set of one interesting subset of elite society, U.S. senators, and have to date found 56 senators who participated in an affair of honor. This is approximately 20% of all senators who represented states in which dueling was tolerated.<sup>5</sup> The true number is surely larger than this estimate. Only three of these fell on the field of honor, likely due to the widespread use of dueling pistols deliberately manufactured to be, even by nineteenth century standards, surprisingly ineffective. The pistols, though exquisitely made, were smooth bore, short barreled, muzzle loaded, flintlock fired guns, instead of more accurate and reliable rifled, long barreled, breech loaded, percussion cap weapons. Indeed, a contemporary estimate puts the probability of dying in a duel at only  $\frac{1}{14}$  (Schwartz, et al., 1984). That dueling was apparently both widespread and relatively safe presents two puzzles. One, what utility did Southern gentlemen derive from the institution, such that it was so common despite the risk of mortal harm? Two, why did participants use inferior weapons when more modern guns were available?

We present potential answers to both puzzles. First, in our view the occasional dueling fatality was tolerated in the South because the institution increased welfare. Specifically, we argue that the threat of a duel had the ability to deter personal attacks in public conflicts, encouraging rivals to instead focus on the merits of their respective causes. Indeed, the benefits of a more civil and reasoned public discourse were almost universally cited by Southern gentlemen as *raisons d’être* for dueling, such as the quote from Charles Gibson above.

Second, we argue that the deterrent effect of dueling depended on the probability of death being neither too high nor too low. The imprecision of dueling pistols implies that approximately the same probability of death applied to the challenger and the challenged, with skill of *de minimis* importance. Were technologically superior weapons – such as revolvers – substituted for dueling pistols, gentlemen would have been more hesitant to issue a challenge, lessening the institution’s potential to check uncouth behavior. Conversely, Southern acceptance of dueling seems to have depended in part on a willingness to

---

<sup>5</sup> See Appendix B for the complete list.

face a non-zero death probability. Were dueling too safe, the institution's public acceptance – and thus its usefulness – may have diminished.

We present historical evidence that duels often grew out of underlying public conflict, such as lawyers arguing a case or prominent citizens disputing a political point in the editorial pages of a newspaper. From time to time, these conflicts turned personal, as participants – in addition to arguing the merits of their own case – worked to undermine their opponent's integrity. A high percentage of duels whose cause is discernable from our present vantage point stemmed from such personal attacks, and not disagreements over substance. In our view, the utility of the institution flowed from its potential to redress such personal attacks, and from its ability to prevent them altogether. We present evidence from the historical record, and from an economic model – discussed verbally in Section 3 and more formally in Appendix A – that dueling was able to fulfill both functions in the Antebellum South. We argue that a duel could redirect attention back to the merits of each contestant's cause and away from personal attacks, thus restoring the honor of its participants. Further, we argue that the threat of a duel discouraged excessive personal attacks in the first place.

Of course, redress was also nominally available via more traditional means, such as the legal system. Southerners invariably expressed a seemingly cultural aversion to courts. For example, Andrew Jackson's mother told her son “the law affords no remedy for such outrage that can satisfy a gentleman. Fight,” a sentiment consistent with Jackson's personal life, and one which he encouraged as President (Holland, 2003). However, a recent literature, beginning with Acemoglu et al. (2016), has argued that there existed substantial heterogeneity in the availability of the courts and other government institutions across the Antebellum United States. Indeed, Jensen and Ramey (2019) find that the South lagged the North in developing government institutions, and that state capacity – as proxied by post office density – is a strong negative predictor of the number of duels. Moreover, the South's seemingly cultural taste for dueling faded quickly following the Civil War and Reconstruction, and their concomitant institutional shocks: the end of slavery, the death of 13.1% of white Confederate males between ages 10 and 44,<sup>6</sup> military and carpetbagger state governments, a federal government newly empowered to protect civil rights throughout the country, and a greatly expanded federal judiciary.<sup>7</sup>

While a want of less sanguinary institutions may have been a necessary condition for dueling to thrive, it does not explain the phenomenon. Dueling seems bizarre from a 21<sup>st</sup> century vantage point, as do its post-hoc rationalizations that extended well into the 20th century, such as that from Sen. Gibson above (see also Stevens, 1940). No one would seriously advocate a return to the practice in our present time. That said, Antebellum duels occurred in a vacuum of state capacity, just as related instances of dueling in Europe thrived under weak legal institutions had previously allowed dueling to fill this vacuum throughout Europe.<sup>8</sup> With alternatives such as resorting to state power prohibitively costly, dueling clearly filled an important function in the lives of Southerners. This paper discusses that role. The paper's main argument – that the value of dueling as a conflict resolution mechanism depended on its limited lethality mirrors arguments made about the value of limits in conflicts resolving interstate disputes (see e.g. Schelling (1957), modelling endogenous limits to war as a form of tacit coordination, or Schram (2021), arguing for an efficiency role of low-level conflicts outside of war).

---

<sup>6</sup> Hacker (2011) provides estimates of Civil War fatalities.

<sup>7</sup> Wiecek (1969) discusses the expansion of the federal judiciary from 1863-1875.

<sup>8</sup> Billacois (1990) describes this phenomenon in early-modern France, McAleer (1990) does so for Germany until the outbreak of the First World War, while Peltonen (2003) details dueling's ability to counter lying in early-modern England.

A related literature studies other nontraditional institutions used in varying contexts to resolve conflicts. Escalante and March (2020) argue that Takanakuy, a custom in the Peruvian highlands of publicly brawling on Christmas Day, was an effective mechanism for conflict resolution, in that its public nature allows the institution to credibly serve as a law enforcement mechanism. Leeson and Coyne (2012) argue that sassywood ordeals, in which specialists administer doses of poison to the accused, are more effective in deterring crime and ascertaining guilt than the formal Liberian justice system due in part to greater public accountability and accessibility of sassywood specialists relative to judges. Leeson (2012) argues that European ordeals in the Middle Ages both deterred undesirable behavior and revealed information about defendants' conduct by exploiting a belief in divine providence. Leeson (2011) views Anglo-Norman trials by battle as an all-pay auction that may have efficiently allocated disputed property in the presence of high transactions costs, and in a way that encouraged less rent seeking than alternate forms of all-pay auctions. Kiernan (1988) describes the evolution of the duel in Europe in the sixteenth century from earlier institutions where participation offered divine judgement on the participants' honor, providing a basis for a seemingly irrational ritual. For an overview of nontraditional, decentralized conflict resolution mechanisms, see Friedman et al. (2019); in particular, they describe the role of feuds in deterring crime and protecting property rights in Saga Age Iceland, northern Somalia, Comanche, and various Romani societies.

Four papers in economics have previously studied dueling. Kingston and Wright (2010) view spurned creditors as the instigators of duels, and delinquent debtors as their targets, with creditors having an eye toward deterring future delinquencies. These authors note that dueling thrived contemporaneously with opaque credit markets, including in the Antebellum South, and view dueling as a predecessor of modern credit scoring. A direct implication of Kingston and Wright (2010) is that duels generally followed credit defaults. While it is possible that duels were indeed fought over financial matters, we find more evidence of affairs of honor arising from political disputes, at least in our research of the U.S. Antebellum South. Further, in the equilibrium of Kingston and Wright's model, a creditor *must* challenge a borrower in default to a duel in order to have future borrowers be willing to accept loans. However, it is unclear why future borrowers would care whether past defaults resulted in a duel, particularly given that in the Kingston and Wright model, some percentage of all projects result in default.

Allen and Reed (2006) view duels as a signal that the combatants have high social capital and are thus worthy of participating in genteel society, and in particular suitable for patronage appointments. These authors construct a separating equilibrium in which individuals with low social capital – either as a result of low birth or youthful shirking – decline duels, thus revealing themselves unsuited for patronage appointments. As Kingston and Wright (2010) point out, this view implies that participation in dueling is both necessary and sufficient for holding public office. Further, Allen and Reed view duels as a screen to separate on an unobservable variable, yet they also argue that social capital comes from readily observable sources such as attending elite schools, clubs, and churches, marrying well, and family history. In our view, neither implication is consistent with the historical record of the U.S. Antebellum South. Further, Allen and Reed do not explain how duels were initiated, or why two gentlemen would both view participation in a duel as utility-maximizing.

Vahabi and Hassani-Mahmooei (2016) endogenize the decline of European dueling as an example of the transition from anarchy to order. In their model, the skill of a dueler varies over time, depending on the number of past dueling “win” that individual has achieved. Individuals with greater skill are more likely to kill their opponents in a duel, and thus less likely to find willing dueling partners. Over time, dueling skill concentrates in fewer individuals, with most individuals eventually optimally choosing the court system to adjudicate disputes. While elegant, the Vahabi and Hassani-Mahmooei model abstracts from

exogenous changes to the viability of the court system. In the U.S. Antebellum South, the cost of using courts appears to have been high, and (exogenously) increased state capacity appears to have resulted in fewer duels. Further, in these authors framework, the benefit to dueling depends only on dueling skill, and each duel has a winner and a loser. However, at least with respect to the U.S. Antebellum South, we provide evidence that the institution was deliberately designed to minimize the importance of skill, and that most duels ended without fatality or injury, so that both duelers were “victorious.”

The fourth paper, O’Neill (2003), describes a war of attrition bargaining game in which a willingness to compromise may indicate a lack of honor, leading to fewer concessions and hence less efficient outcomes. In this context, O’Neill (2003) describes how seconds – appointed representatives of the bargainers – could mediate disputes, lessening the impact of compromise on observed honor, thereby facilitating compromise. The use of seconds to arrange and oversee the duel as well as hopefully resolve the dispute beforehand was a prominent feature of duels in the Antebellum South.

Section 2 examines the historical record on dueling, Section 3 discusses our model and results, while Section 4 concludes. Two online appendices provide formal modeling, comparative statics, and numerical simulations (Appendix A), and additional historical evidence on the nature of Southern dueling (Appendix B).

## 2 Overview of Dueling

In this section, we seek to establish several historical facts about the institution of dueling, while reserving much of the historical record for Appendix B.

### 2.1 Dueling was common among Antebellum Southern Gentlemen

Duels were commonly employed by Antebellum Southern U.S. gentlemen. In addition to the 56 senators mentioned in the introduction, at least 36 governors,<sup>9</sup> 57 U.S. congressman, and 7 cabinet secretaries participated in duels, with almost all coming from the South or the pre-1804 North. Records of duels involving prominent politicians are particularly likely to persist across the years, so Southern gentlemen who never served in high office are surely underrepresented in any census of duelers.

Dueling grounds outside of cities such as Washington DC (Bladensburg), New Orleans (The Dueling Oaks), and Vicksburg TN (Dueling Island) acquired national reputations (Stevens, 1940). For example, a nineteenth century newspaper account claims “between 1834 and 1844 scarcely a day passed without duels being fought at the Oaks” (Times-Democrat, March 13, 1892).<sup>10</sup>

In contrast, almost no duels took place north of New York City (Stevens, 1940), and very few took place in the rest of the North after the Burr-Hamilton duel, which spurred “a crusade against dueling throughout most of the Northern states” (Ellis, 2000, page 39), leading to the practice’s virtual elimination north of

---

<sup>9</sup> See Byron (2008) for a list of governors who participated in duels.

<sup>10</sup> See Appendix B for descriptions of duels mentioned.

Washington DC.<sup>11</sup> A Massachusetts anti-dueling law and a related push by John Adams to ban dueling in the Continental Army are representative of contemporary attitudes towards dueling in New England.

Dueling declined in the American South after the Civil War. The best explanation for this decline is institutional change. Dueling acted as an alternate legal system in the South where the formal legal system was unsophisticated and better suited for an agrarian society than an industrialized one. Scholars have debated whether slavery, or other factors such as climate, caused this lack of industrialization.<sup>12</sup> In the aftermath of the Civil War and Reconstruction, however, the South began to industrialize. Ranney (2002) writes that “Southern states had to decide whether to shape their legal systems to follow suit or to preserve their rural, agricultural pre-war character.” Their legal systems did evolve, rendering the duel as archaic and ineffective. Posner (1996) describes dueling before the war as preventing “disputes from exploding into feuds by formalizing and channeling the means of enforcement.” After the war, however, the “superior efficiency of police and courts” rendered dueling inefficient as an alternate legal system.

## 2.2 Duels arose out of public contests

From 1816-1818, two Transylvania University medical school professors, Dr. Drake and Dr. Dudley, battled for influence over how the department should be run and methods of instruction. As the dispute became more acrimonious, Dr. Dudley charged that Drake “had attempted to destroy the medical school at Transylvania University.” The vitriol increased “with occasional outbreaks in pamphlet,” until August 1818 when a duel erupted (Coleman, 1953).

Henry Clay and Humphrey Marshall, while both serving in the Kentucky General Assembly in 1807, differed as to the propriety of an embargo on British-made products during an undeclared naval war with Great Britain. Arguments for and against the policy soon shifted to personal insults (Clay was a “demagogue” and “liar”), and a duel followed. Clay’s 1826 duel with John Randolph grew out of a dispute regarding a potential U.S. mission to Latin America (Holland, 2003).

Sitting congressmen George Washington Campbell and Barent Gardenier dueled in 1808 following a public dispute over the British embargo. Numerous duels arose from the Yazoo land deal, in which Georgia politicians attempted to sell seized Creek Indian lands at low prices to a company in which many of them held stock. Virginia Senator Armistead Mason’s fatal duel with John McCarty grew out of an amendment Mason introduced to a Senate bill that would allow Quakers and other conscientious objectors to avoid being drafted into military service by providing a substitute.<sup>13</sup> Holland (2003) describes physicians resorting to New Orleans’ Dueling Oaks to settle “differences in opinions on diagnosis and treatment,” for example Drs. Chopin and Foster dueling to settle a dispute about how to best treat a stabbing victim. Newspaper editors, controlling an outlet for political discussion, were frequently subject to challenge (Holland, 2003). Topics which spurred duels included slavery, whether or not to send aid to the Donner party, and tax policy (Holland, 2003).

According to Stevens (1940), “Men shot each other for gambling debts, for a dispute over billiards, an uncomplimentary word in an editorial, a jest at a table, a refusal to take a glass of whiskey, or, most of all, for disagreements in politics.” We take “disagreements in politics” to include any public conflict where

---

<sup>11</sup> Halliday (1999) demonstrates that dueling declined in Canada in much the same way as it did in the American North.

<sup>12</sup> See Bateman and Weiss (1981).

<sup>13</sup> See <https://www.washingtonpost.com/archive/local/2003/02/16/vitriolic-exchanges-led-to-fatal-duel/31da8391-6cc6-4cd8-99d9-d6d436336c8b/>.

gentlemen compete for the esteem of a third party. Of the dueling grounds outside of Washington DC, Holland (2003) said that “Most of Bladensburg’s visitors were more political [...] Unlike the impulsive Old World quarrels over card games and jostling, political duels tended to be long-festering [disputes] that would suddenly flare to the fighting point over a nothing.” An 1859 Harper’s Weekly article stated that “There are parts of the United States where a politician must necessarily be prepared to fight duels... in many states of the Union, a politician who will not fight [...] cannot command the popular suffrage.”<sup>14</sup> In the non-random sample of duels listed in Schwartz et al. (1984), of the 23 duels whose underlying cause is easily inferable, 15 clearly arise from public conflicts such as those described above.

Of course, some duels were fought over quite trivial matters that had nothing to do with any public conflict. The day following a drunken dispute “as to which understood some of the dead languages the best,” future U.S. Senator John Rowan shot and killed his friend Dr. James Chambers in a duel. Our reading is that the minority of duels arising from purely personal disagreements likely co-opted the institution of dueling to legitimize violence that would otherwise be thought unseemly.

### 2.3 Dueling was relatively safe

American duelers used purpose-built dueling pistols, designed for elegance and not accuracy, to settle disputes. These pistols were flintlock, short-barreled, smooth bore, and unsighted (as opposed to percussion cap, long-barreled, rifled, and sighted). The flintlock weapons misfired often, wasting shots and exhausting the dueler’s turn. Holland (2003) states that wearing glasses while firing was frowned upon.

One 1836 writer estimated that 1 in 6 duelers were injured, and 1 in 14 killed (Schwartz et al. 1984). Data collected by Kelly (1995) imply a 5.6% fatality rate in eighteenth century Irish duels when dueling pistols were used.<sup>15</sup> Another estimate puts the conditional probability of a naval officer dying on the field of honor at 20% (Stevens, 1940, pg. 71), while Byron (2008) compiles a selected sample of duels written up in 31 newspapers, finding a 23.9% fatality rate. McAleer (1990) finds that German dueling using pistols, had the highest mortality rate in Europe, around 20%. In our database of dueling senators, 41 received fire in a duel, 3 of whom died. As it is more likely that we failed to find politicians who dueled and lived than those who died, the mortality rate among senators was probably below  $\frac{3}{41}$ .

Deadlier weapons were available. In particular, swords were commonly used in European duels prior to the nineteenth century. The data in Kelly (1995) imply a fatality rate from eighteenth century Irish duels with swords of 37.4%.<sup>16</sup> Holland (2003) states that “perhaps ten thousand” French gentlemen perished in sword duels between 1591 and 1610. However, Kiernan (1988) notes that even before the advent of dueling pistols, weapon choices kept mortality artificially low. Indeed, a 1777 Irish dueling code specified that were swords used, the duel should continue until “one is well bloodied, disabled, or disarmed” or

---

<sup>14</sup> “The Death of Broderick,” Harper’s Weekly, October 22, 1859.

<sup>15</sup> At 73-74, Kelly describes 37 deaths in 61 duels between 1716-1750, with 27% of these duels being fought with pistols (and the remainder with swords). From 1751-1770, Kelly finds 20 deaths in 83 duels, with 81% of these duels being fought with pistols. Solving the resulting 2x2 linear system yields the fatality rates in the text. If accounts of “mortal wounds” are counted as deaths, the implied fatality rates are 43.1% for swords and 11.4% for pistols.

<sup>16</sup> *Id.*

until one party was both bleeding and willing to apologize (Holland, 2003, at 44). In contrast, pistol duels had an obvious and frequently non-lethal stopping point: after each side had fired one shot.

Percussion cap pistols were developed around 1830, while rifling was invented hundreds of years earlier. Holland (2003) describes “alarming results” when rifles, shotguns, or Bowie knives were employed in lieu of dueling pistols. In the preface to an 1878 edition of a treatise on Southern dueling first published in 1848, Barnwell Rhett “deplores the fearful number of street fights, which, he says, are attended with fifty times the mortality and without the moral effect and social amelioration of the code of honor” (Schwartz, 1940 at 135). Chernow (2017) describes an 1875 federal investigation which found 2,141 murders of black Louisianans in the preceding ten years. Domestic terrorists in other Southern states produced similarly grim results, often employing firearms designed for accuracy and not elegance.

The unpredictable behavior of dueling pistols rendered skill relatively unimportant, and subjected both participants to similar risks regardless of experience. In contrast, skill was an important determinant of outcomes in sword duels. Holland (2003) says of such duels “the owner’s skill mattered more than the blade’s tempering, and fencing lessons were an essential part of a gentlemen’s education.... Fencing lessons could save your life.”

Finally, Leeson (2012) finds a higher mortality from a different nontraditional institution designed to resolve disputes. Ordeals in Nagyvarad, Hungary conducted between 1208 and 1235 condemned the defendant in 37.5%, or 78/208 cases, while English ordeals between 1194 and 1219 condemned only 11%, or 2/19 defendants.

## 2.4 Dueling was afforded widespread legitimacy in the South. Successful duels publicly ended conflicts.

Written records exist for hundreds, if not thousands, of Southern duels; see Byron (2008) which catalogs accounts of 734 duels scraped from contemporary newspaper records. Such newspaper accounts were often especially concerned with the particulars of the affair (i.e. at how many paces was it fought, how many shots were fired), the nature of the underlying public conflict which led to the duel, and whether or not the affair was conducted honorably and a mutually satisfactory arrangement reached. The following excerpt from the *Greenville Mountaineer* (1/24/1845), found on the front page below a story about a local expedition to search for sunken treasure off the coast of Margarita, is typical:

Affair of Honor. — A hostile meeting was had between Mr. Thomas Butler Kind and Mr. Charles Spalding, on Monday, the 6th inst. at Amelia Island. Weapons, pistols — distance, ten paces. Two shots were passed without effect, when, on the intervention of friends, the affair was adjusted and the parties exchanged friendly salutations.

The difficulty originated from some circumstances connected with the recent canvass of the two gentlemen while candidates for Congress before the people of this District. We refrain from comments, and only mention this satisfactory settlement of the matter because there has been considerable excitement in regard to it in the public mind, and because we feel assured that the announcement will cause much real pleasure among the friends of both the gentlemen.

Some announcements were terser, merely stating that a duel had taken place and the conflict ended honorably, such as the following announcement from a duel’s seconds appearing in the *Columbia Telescope* (9/20/1834):



The affair of Honor pending between Mr. William L. Allston and Mr. William M. Armstrong, having been referred to us, was Honorably adjusted.

Lancasterville Sep. 10th 1834

JAMES H. WITHERSPOON

JAMES J.B. WHITE

JOHN M. STARKE

Reporting standards varied across newspapers; for example, an October 27, 1830 article in the *Arkansas Gazette*, upon reporting “an honorable adjustment of the dispute, to the mutual satisfaction of both parties,” left it to “Madame Rumor, ‘with her hundred tongues,’ to communicate the names of the parties.” Examples of similar reports abound, in which Southern newspapers presented, without irony, the basic facts of a duel, what was known about the underlying dispute, and whether or not the affair was conducted honorably.<sup>17</sup> The widespread uncritical reporting of particular duels suggests two things: one, dueling was accepted as common practice by Southerners. Two, duels were not private affairs, but were conducted at least partly for public consumption, and Southern gentlemen were likely to be well aware of how the parties acquitted themselves in any affair of honor. In addition to the press’ reporting of affair of honor, Southern duels were often attended by scores of people. For example, the *Camden Confederate* (11/6/1863) reports “there were about seventy-five spectators at the scene” of a “fair stand up fight (with) both parties evincing great coolness” resulting in the death of a Mr. Copeland of Maryland.

Dueling appears to have been preferred to the legal system for the settling of disputes among Southern gentlemen, who disdained civil trials in which they would be judged by a jury they felt were socially inferior. Williams (1980) describes the duel as “clear evidence of the disinclination of Southerners to use the courts in connection with personal matters.” While a court may have been able to give pecuniary remuneration for an insult, they could not remedy the damage to a gentleman’s honor. As General Oglethorpe put it, a meeting on the field of honor was “essentially self-defense... a man has a right to defend his honor” (Stevens, 1940, pg 14). Schwartz et al. (1984) posit that contemporary courts’ reluctance to accept “truth of the matter asserted” as a viable defense may have rendered a jury award ineffective at restoring honor. According to Wells and Harwell (2001), “honor was not a quality that could be repaired through the legal system... a libel suit carried the message that the plaintiff was one who thought his honor could be repaired by monetary damages... [and was] an admission of both weakness and cowardice.”<sup>18</sup>

Southern gentlemen returning from the field of honor enjoyed near-complete legal immunity; even in the exceedingly rare instances in which a dueler was put in front of a (socially inferior) jury, the near-universal outcome was acquittal. There is only one record of an execution resulting from a duel, in Illinois, and even this was more for dishonorable conduct than murder.<sup>19</sup> A contemporary account claims “sometimes two or three hundred people hurried from the city to witness these human baitings,” suggesting that the probability of future legal trouble was quite low (*New Orleans Times-Democrat*,

---

<sup>17</sup> See Appendix B for a selection of nineteenth century U.S. newspaper articles about specific duels.

<sup>18</sup> Posner (1996) proposes dueling may have been an efficient institution “when societies are not sufficiently wealthy or organized to support powerful, centralized governments.” Lessig (1995) states that “the duel was like a lawsuit.”

<sup>19</sup> The duel’s seconds intended to stage a mock duel to test the challenged man’s courage, so they gave the principals unloaded weapons. The man in question learned of this plot and loaded his weapon with his own bullet, allowing him to slay his adversary. For this he was executed (Stevens, 1940, pg. 93).

March 13, 1892). Similarly, participation in a duel seemed to help, rather than hinder, a politician's path to high office (see section 2.2, *supra*).

Greenberg (1990) describes dueling in South as an "elite response to insult," especially accusations of lying. While the duel appears to have remedied such an insult in the South, he writes that Northerners, including Benjamin Franklin, simply didn't understand why participation would have such an effect. Northern newspapers reported duels only with derision. The facts of the dispute leading to a duel were brought up only in an attempt to illustrate their perceived absurdity, and the particulars of how a given duel was fought were not important, as all duels were dishonorable to Northern eyes. This treatment of affairs of honor in the press reflects Northern attitudes towards dueling, but it also greatly reduced the effectiveness of an affair of honor at achieving any end whatsoever — as duels were fought for public consumption, the fact that they would not be generally accepted by the press by itself ensured Northerners would pursue other methods of resolving conflicts, such as jury trials.

Duels were looked upon with scorn and derision of increasing intensity the farther north one traveled. The sarcasm in a 2/15/1872 New York Times article, describing three duels that occurred in New Orleans, is typical:

Now it is not often that New Orleans has so great a treat as three duels at once. And so the (visiting) Grand Duke has very opportunity arrived there, we trust it may occur to some of the gentlemen concerned in these various little difficulties, that they have an admirable chance to make the demands of honor serve the duties of hospitality. Let the three combats be fought in public, and the Grand Duke be invited to attend. So novel an exposition of New Orleans habits would undoubtedly gratify the illustrious visitor, and the duelists might find access of satisfaction in dying at his princely feet. A little ingenuity would make of the affair a most attractive and imposing spectacle. Capt. Scott, for example, might engage one of his adversaries with his shot-gun, while he kept the other in play with his sword. In the meantime, Messrs. Carter and Badger could be keeping up a lively fusillade on the outskirts. Better still, the combatants could throw their various honors into "pot", and join a general battle. Or each might take turns in standing the assault of the other four. If all the gentlemen should be unhappily killed, sorrow would be assuaged in the reflection that honor was quite appeased, and that each had obtained all the satisfaction he could possibly desire. If New Orleans gentlemen will insist on this prerogative (of dueling), they ought not to be selfish in their enjoyment, especially with a Grand Duke to be exceptionally honored.

The Hamilton-Burr duel, involving a founding father and the sitting vice president, naturally attracted national attention, with views of the affair predictably fracturing upon regional lines. James Robertson of Tennessee, generally an opponent of dueling, wrote that "I suppose that if dueling could be justifiable, it must have been in his case" (Brands, 2005). Indeed, Brands writes that when passing through Nashville, Burr "was feted as a celebrity and a minor hero. No one in Nashville held his killing of Hamilton against him. Honor was honor, and, besides, to most Tennesseans, the fewer Federalists the better." The duel, however, destroyed Burr's reputation in the North. Brands writes that Burr was "politically ruined" and that his fellow Republicans considered him "an embarrassment and a liability."

Perhaps because of the legitimacy of the institution, duels appeared to rehabilitate the reputations of both participants. As Parker (2001) notes, "the restoration of honor did not depend on the outcome of the confrontation. Ideally, a well-fought duel reconciled the two adversaries, reestablished mutual respect, and 'cleansed' the stain caused by the original insult." Allen and Reed (2006) provide evidence that "the subsequent renewal of friendship among adversaries" was common, with duels refocusing the public's

attention away from the libelous behavior that led to the duel. Appendix B contains various accounts of duels that ended amicably, with any libel ostensibly withdrawn.

### 3 Dueling as an efficient social institution

What should we make of the frequency with which Southern gentlemen used relatively harmless dueling pistols to settle public contests? This section employs an economic model to make the paper's main argument: given weak state institutions in the Antebellum South, Southern dueling may have been an efficient social institution, and its availability may well have increased combatants' expected utility, *ceteris paribus*. The parameters of Southern dueling — in particular its acceptance among elites and the use of dueling pistols as weapons — likely contributed to its efficiency, and lower social acceptance or deadlier weapons would likely have tilted the scales towards inefficiency. The model uses the facts developed in section 2 as inputs. In section 3.1, we rely on verbal descriptions of the incentives faced by Southern gentlemen, while section 3.2 presents our results in a non-technical format. Appendix A fully describes the technical details to the model and results of this section, as well as comparative statics and numerical simulations following from functional form assumptions.

#### 3.1 A model of dueling

We model a duel as one possible outcome in the final stage of a two-stage game. In the first stage, two randomly-matched agents interact in a contest for public esteem (such as an election, letter-writing campaign, or gossip campaign). We assume the contest has one winner and one loser,<sup>20</sup> and each agent would like to win the contest. The agents have different types that render them more or less likely to win. An agent's type might encompass his political positions on one or more issues, or his past reputation. To the extent an agent's type is more in line with the preferences of the typical member of the group he is trying to impress, he is more likely to win the contest. To consider the concrete examples from section 2.2, perhaps the contest is for influence in choosing methods of instruction at a university, or in choosing trade policy towards foreign countries. In these examples, type might represent each agent's position on the policy question. Victory in the contest could be adoption of an agent's preferred policy, or simply having relatively greater influence in crafting the policy. Each agent's type is immutable and is publicly observable.

While type is predictive of victory in the contest, it is not determinative; agents with positions farther from the group they seek to influence can and do win contests, due to (unmodelled) factors such as charisma or luck. In other words, the agents' types determine only the *ex ante* probability that each agent wins the contest. We abstract from more complicated type structures by assuming that each agent's type can be summarized by a one-dimensional variable (as opposed to, say, having varied positions on different issues related to the public contest). Were contests decided only on type, each agent's probability of winning would be determined by the distance from his type and his opponent's type to the public's most preferred type. Two rivals with the same type would each win the contest with fifty percent probability, while an agent with a type closer to the public's preferred type might win with (for example) seventy percent probability.

---

<sup>20</sup> Allowing for a continuum of outcomes, such as partial victories, or different degrees of influence with the public, would not change the workings of the model or our results.

Agents may attempt to improve their chance at winning the contest in various ways. For example, they might work to clearly state their own views, or to convince members of the group they aim to influence of the merits of their views (i.e., they might use constructive communications). Further, they might seek to discredit their opponent, such as by undermining his credibility, attacking his motives, distorting his views, or suggesting he is generally untrustworthy and undeserving of public esteem (i.e., destructive methods). We abstract from the former because in our reading contests were usually for the esteem of a small group of high-information observers (e.g., a university faculty, a legislature) who would likely have well-formed views and be able to clearly understand each agent's views. We summarize the latter, destructive communications in one variable, which we call libel. Libel distorts the public's perception of the its subject's positions. For example, even if the public is more closely aligned with the type of one agent, libel directed at that agent indicating that he is a poltroon, coward, or otherwise of low moral character may dampen the public's appetite for that particular agent, lowering his chance of winning the contest. Thus, we model the probability of an agent winning the contest as increasing in the closeness of his type to the public's preferred type, and decreasing in the amount of libel his opponent spreads.

Leveling libel at a rival is costly to an agent. Costs may be pecuniary (e.g., printing libelous pamphlets) or non-pecuniary (e.g., the time cost of preparing editorial material regarding a rival's moral fitness). We model these costs as convex, so that additional libel becomes costlier as more has been thrown (or, equivalently, that libel has diminishing effectiveness). The benefit of libel is an increased probability of winning the contest. Agents decide how much libel to mete out by comparing the costs and benefits of additional libel and stopping when the benefit of additional libel no longer exceeds the cost.

In a static game, this would be the whole story. Agents would choose libel levels to equate the marginal benefit of additional libel with the marginal cost. Instead, we consider a dynamic game with a second stage, in which agents may be able to partially counteract their rivals' libel by challenging them to duels. The linchpin of our model is that dueling had some benefit to participants. Based on the material in section 2, we view this benefit as decreasing the effectiveness of libel. As seen in section 2.4, a successful outcome of a duel was for the combatants to exchange shots, and then to "exchange[] friendly salutations," and contemporary reports describe such resolutions without reference to the underlying contest.

Thus, we view Southern duels as eliminating at least some of the effects of both agent s' libel, with the contest then decided post-duel as if that fraction of both agents' libel was never dispensed. This is both because the friendly salutations that follow presumably constitute a withdrawal of previous libel, and because a duel was widely acknowledge as a way for a dueler to "defend his honor."<sup>21</sup>

Of course, dueling is costly to both agents to the extent it carries a risk of death or injury, each of which lowers an agent's utility. We assume that agents engage in standard cost/benefit analysis in deciding whether or not to challenge their rival to a duel. Thus, an agent would weigh the probability of death or injury against the benefit to his reputation from cleansing his reputation on the field of honor. While a duel's reduction of libel applies to both agents, an agent who received relatively more libel may have more to gain from a duel. It follows that the more libel leveled against an agent, the greater the benefit to his dueling, all else equal. While either agent could refuse the duel, the cost of turning down the challenge was high enough that such rare incidents were noted in newspapers in the Antebellum South. Indeed, declining a challenge gave the aggrieved party license to 'post' his antagonist, publicly declaring him a

---

<sup>21</sup> *Supra*, section 2.2.

poltroon (Holland, 2003). Thus, we assume that the cost of refusing a challenge was prohibitively high for most challenged parties.<sup>22</sup>

Two parameters inform an agent's choice of whether or not to issue a challenge. First, the "effectiveness" of a duel in reducing libel (specifically, the fraction of libel that is eliminated by a duel) determines the potential benefit to a duel. Evidence presented in section 2.4 suggests that this fraction was non-zero, and may have been large, in the Antebellum South. In contrast, this fraction was likely at or below zero in the North, at least following the Burr-Hamilton duel.

Second, the probability of dying in a duel affects the cost of dueling. We assume for simplicity that all duels carry the same probability of death; this is consistent with the widespread use of inaccurate dueling pistols (see section 2.3), and widely adopted conventions that specified how gentlemen should behave during interviews. We further assume away (again, for simplicity) the probability of sustaining non-fatal injuries in a duel. Thus, a duel results in the death of zero, one, or both agents. We assume that both agents have the same disutility of death.

We solve the game via backward induction. That is, we start in stage 2, and determine what libel levels would lead either agent to issue a challenge. Then, we go back to stage 1 and solve for each agent's optimal libel level, accounting for the possibility that a sufficiently high libel choice may lead to a duel. Three types of equilibria are possible. In an *unconstrained equilibrium*, the level of libel chosen by agents in the first stage is insufficient to trigger a challenge to a duel by either agent in the second stage. In this type of equilibrium, the game's second stage does not alter agents' decision making in the first stage. Second, in a *dueling equilibrium*, a duel takes place in the second stage. In such an equilibrium, one agent is libeled so much in the first stage that he finds it optimal to issue a challenge in the second stage. Of course, agents will anticipate a challenge in such equilibria, which diminishes the expected return to libel in the first stage. Finally, in a *deterrence equilibrium*, at least one agent chooses to libel his rival less than he otherwise would in order to avoid a second stage duel. No duel takes place in these equilibria, but the threat of a duel results in less libel in the first stage.

In summary, the primitives of our model are: the cost of libel, the effectiveness of libel in influencing the contest, the probability of dying in a duel, the effectiveness of a duel in reducing effective libel, and the disutility of death. Our results map these primitives into various outcomes. We rank outcomes in terms of social welfare and derive our main results in the following section. Two results are of particular importance. First, if dueling is effective at reducing libel, the legalization of dueling may be welfare enhancing. Second, the probability of dying in a duel affects social welfare non-monotonically, and welfare is maximized by an intermediate value, neither too high nor too low.

## 3.2 Results

Appendix A leverages functional form assumptions to formally solve the model via backward induction. We provide an intuitive description of major findings here.

First, at most one agent would prefer to issue a challenge to a duel in the game's second stage. This is because the contest is zero sum: one agent will win and the other will lose.<sup>23</sup> A duel may change the

---

<sup>22</sup> See Appendix B for historical examples of the high cost of refusing a challenge.

<sup>23</sup> As modeled, an agent's utility from winning the contest is unaffected by his having died in a duel. This is an appropriate assumption if the dueler cared about the policy issue for reasons above and beyond his being able to live under his preferred policy. This assumption is easily relaxed with no meaningful impact on our results.

probabilities of each agent winning, but it cannot do so in a way that would make both agents more likely to win the contest. Of course, it is possible that it does not increase the probability of either agent winning by enough to offset the possibility of dying in a duel, in which case no agent will choose to issue a challenge in the second stage.

Second, we use the standard Nash equilibrium concept to solve for optimal libel levels in the first stage of the game. This means that each agent chooses the level at which he libels his rival to equate the marginal benefit and marginal cost of libel, accounting for the possibility that a duel may occur in the second stage, which both lowers the return to libel (as a duel partially eliminates the effect of libel) and makes death a possibility. In an unconstrained equilibrium, each agent simply equates the marginal benefit and marginal costs of libel. In a dueling equilibrium, each agent does the same, but accounts for the diminished return to libel. Finally, in a deterrence equilibrium, the agent who is deterred plays the maximum libel level that will not induce a challenge from his rival.<sup>24</sup>

Third, which type of equilibrium occurs depends on the model's underlying parameters, such as the probability of dying in a duel, the effectiveness of a duel in reducing libel, and the difference in type between the two agents. In particular, duels occur when the probability of dying in a duel is low, the effectiveness of a duel in reducing libel is neither too high nor too low, and the difference in type between the two agents is large. The intuition is as follows. If duels are too deadly, no agent will want to partake, regardless of effectiveness in reducing libel. If duels are ineffective at reducing libel (e.g., because more traditional institutions provide greater value in resolving disputes), there is no point in risking death to duel. On the other hand, if duels are very effective at reducing libel, they provide an effective deterrent to excess libel, and neither agent will choose to libel his opponent enough to induce a duel in the game's second stage. Finally, the difference in type between the two agents matters because a more extreme agent has a greater return to libeling his opponent, and thus, all else equal, duels are more likely to occur in contests involving one agent with views that are extreme relative to those of the public, and one with views aligned with those of the public.

Fourth, deterrence equilibria occur for intermediate levels of the probability of death from a duel. If a duel is somewhat likely, but not overwhelmingly likely, to result in the death of one or both agents, it becomes a more credible threat, and in the game's first stage each agent will believe that his rival may well challenge him to a duel if he were to excessively libel the rival. This threat evaporates if duels are overly deadly, as an agent will know that even egregious libel is unlikely to result in a challenge, as his rival would not find it optimal to incur such a high risk of death to restore his honor. The balance between deterrence and acceptance is not unique to duels. Leeson and Coyne (2012) argue that a superstitious belief that sassywood ordeals are reasonably safe for the innocent but deadly for the guilty – supported by manipulation of the ordeals by sassywood specialists – underlies broad Liberian public support for the institution. Leeson (2012) argues that priests manipulated the outcomes of ordeals to ensure they harmed participants often enough to be credible, but not so often that innocents refused to participate.

Fifth, we posit that total social welfare is decreasing in both the number of duels (because duels result in at least occasional deaths) and the amount of libel (because libel distorts political and other processes, resulting in suboptimal outcomes). If so, it follows (from the previous paragraph) that an intermediate level of deadliness of dueling weapons generates the greatest social surplus, as such weapons can deter bad behavior (libel) without excessive deaths. Indeed, in the context of our model, the deadliness of dueling weapons can even be chosen so as to result in no duels in equilibrium, but to still deter excessive libel. In the absence of strong institutions allowing aggrieved parties to seek redress for damages caused

---

<sup>24</sup> It follows from the previous paragraph that at most one agent can be deterred in a deterrence equilibrium.

by libelous speech (as in the modern era), this level of deterrence is arguably superior to a regime that outlaws dueling, as both regimes produce zero dueling deaths, but allowing for the possibility of a duel deters libel.

This result is the most important point we make in the paper, so it is worth unpacking further. Figure 1 plots, for a numerical example, the equilibrium number of deaths per public contest (as opposed to per duel), and the units of libel chosen, for various levels of the probability of dying in a duel, ranging from 0 (duels are perfectly safe) to 10.4% (i.e., higher than the mortality rate observed in the Antebellum South, per section 2.3). As the mortality rate increases from 0, duels become more of a deterrent, reducing libel (albeit at the expense of some deaths). As the mortality rate increases further still, agents are more hesitant to issue challenges. Thus, the deterrent effect begins to evaporate, and the level of libel observed in equilibrium increases (while the number of deaths/contest decreases).<sup>25</sup>

While we are agnostic how society should trade off deaths from dueling against lower libel levels, the optimality of an intermediate level of deadliness from dueling holds regardless of how this tradeoff is resolved. In figure 1, mortality rates corresponding to the shaded region, labeled “Optimal Mortality,” Pareto dominate points outside of the shaded region. This is because for any point not in the shaded region, the same level of dueling deaths can be obtained in the shaded region, with lower libel. To be clear, figure 1 represents a particular numerical example, but the same intuition would hold even for different model parameters.

Sixth, and finally, the effectiveness of a duel in reducing libel is a key determinant of the frequency of duels and the level of libel. If dueling is ineffective at reducing libel, then a duel is not a credible threat capable of deterring libel. As seen in section 2.4, dueling was widely mocked in the North, and thus was unavailing as a method of restoring one’s honor, even in the face of vicious libel. On the other hand, as seen in section 2.4, in the absence of credible legal institutions, Southerners saw dueling as a legitimate means of honorably ending conflicts, which thus established a duel as a credible threat, capable of deterring libelous behavior.

---

<sup>25</sup> The functional form and numerical simulations used to generate Figure 1 is described in detail in Appendix A.

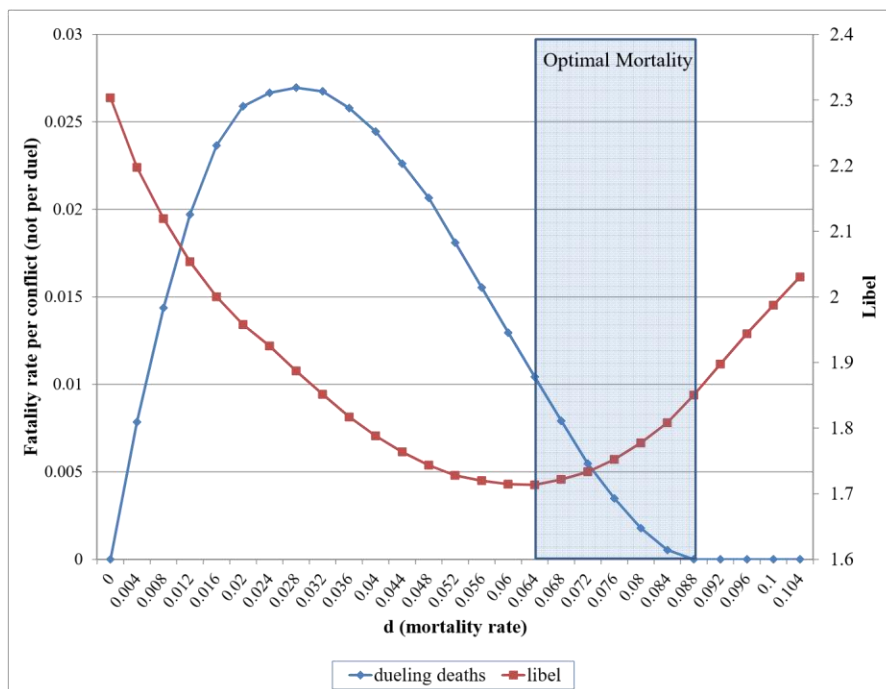


Figure 1: Average libel and deaths per contest

## 4 Conclusion

It is easy to argue that dueling was an undesirable and barbarous aspect of Antebellum Southern society. The costs were evident. Duels resulted in the deaths of hundreds of Southern politicians, soldiers, editors, physicians, attorneys, and other respected figures in society. That this system was able to last for such a long period of time, was endorsed and found enthusiastic participants among the political and social elite, and served as a means of restoring or defending personal reputation is a historical puzzle that has attracted the attention of legal scholars and economists.

Our model offers explanations for two important phenomena related to dueling. First, dueling had to be relatively safe to be an effective deterrent to libel, and so the seemingly irrational choice of archaic and inaccurate (but still occasionally deadly) dueling pistols may have been an efficient social choice that both lowered libel and ensured that duels would occasionally take place. Second, we offer a more nuanced explanation for the value Antebellum Southerners derived from dueling in the absence of more traditional institutions than is available in the literature. In particular, we incorporate available historical evidence into an economic model which implies that agents rationally chose to engage in dueling in order to lessen the effects of libel, and the threat of a duel likely deterred libel to some extent, relative to what would have existed with a less effective method of conflict resolution.



## References

- [1] Acemoglu, D., J. Moscona, and J. Robinson, 2016. "State Capacity and American Technology: Evidence from the Nineteenth Century," *American Economic Review*, 106: 61-67
- [2] Allen, D. and C. Reed, 2006. "The duel of honor: screening for unobservable social capital." *American Law and Economics Review*, 8: 81-115
- [3] Bateman, F. and T. Weiss, 1981. *A Deplorable Scarcity: A Failure of Industrialization in the Slave Economy*. University of North Carolina Press.
- [4] Billacois, F., 1990. *The Duel, Its Rise and Fall in Early Modern France*, Edited and translated by Trista Selous, New Haven and London, Yale University Press.
- [5] Brands, H.W., 2006. *Andrew Jackson: His Life and Times*, Anchor
- [6] Byron, M., 2008. *Crime and Punishment: The Impotency of Dueling Laws in the United States*, University of Arkansas dissertation
- [7] Chernow, R., 2017. *Grant*, Penguin Press
- [8] Coleman, J., 1953. *Famous Kentucky duels*, Roberts Printing Company
- [9] Ellis, J., 2000. *Founding brothers*, Vintage Books
- [10] Escalante, E., and R. March, 2020. "Fighting on Christmas: brawling as self-governance in rural Peru." *Journal of Institutional Economics*, 16: 355-368.
- [11] Friedman, D., P. Leeson, and D. Skarbek, *Legal Systems Very Different From Ours*, self-published
- [12] Gilbert, A., 1976. "Law and Honour among Eighteenth-Century British Army Officers," *The Historical Journal*, 19(1): 75-87.
- [13] Greenberg, K., 1990. "The Nose, The Lie, and the Duel in the Antebellum South." *The American Historical Review*, Vol. 95(1): 57-74.
- [14] Hacker, J.D., 2011. "A Census-Based Count of the Civil War Dead," *Civil War History*, 57: 307-348
- [15] Halliday, H., 1999. *Murder Among Gentlemen: A History of Dueling in Canada*, Toronto. Robin Brass Studio.
- [16] Holland, B., 2003. *Gentlemen's Blood*, Bloomsbury
- [17] Jensen, J. and A. Ramey, 2020. "Going Postal: State Capacity and Violent Dispute Resolution," *Journal of Comparative Economics*, 48: 779-796
- [18] Kelly, J., 1995. *That Damn'd Thin Called "Honour": Dueling in Ireland, 1570-1860*, Cork University Press

- [19] Kiernan, V., 1988. *The Duel In European History, Honor and the Reign of Aristocracy*, Oxford, Oxford University Press.
- [20] Kingston, C. and R. Wright, 2010. "The deadliest of games: the institution of dueling." *Southern Economic Journal*, 76: 1094-1106.
- [21] Leeson, P., 2011. "Trial by battle," *Journal of Legal Analysis*, 3: 341-375
- [22] Leeson, P., 2012. "Ordeals," *Journal of Law and Economics*, 55: 691-714
- [23] Leeson, P. and C. Coyne, 2012. "Sassywood," *Journal of Comparative Economics*, 40: 608-620
- [24] Lessig, L., 1995. "The regulation of social meaning" *University of Chicago Law Review*, 9431045
- [25] McAleer, K., 1990. *The Last Teutonic Knights: The German Duel in Comparative Perspective: 1871-1918*, PhD Thesis in History, San Diego, University of California.
- [26] O'Neill, B., 2003. "Mediating national honour: lessons from the era of dueling." *Journal of Institutional and Theoretical Economics*, 159: 1-19.
- [27] Parker, D., 2001. "Law, Honor, and Impunity in Spanish America: The Debate over Dueling," *Law and History Review* 19: 311-342
- [28] Peltonen, M., 2003 . *The Duel in Early Modern England: Civility, Politeness, and Honor*, Cambridge, Cambridge University Press.
- [29] Posner, E., 1996. "Law, economics, and inefficient norms." *University of Pennsylvania Law Review*, 144: 1697-1744
- [30] Ranney, F., 2002. "A Fool's Errand - Legal Legacies of Reconstruction in Two Southern States." 9 *Texas Wesleyan Law Review*, 1.
- [31] Schwartz, W., K. Baxter, and D. Ryan, 1984. "The duel: can these gentlemen be acting efficiently?" *The Journal of Legal Studies*, 13: 321-355
- [32] Schelling, T., 1957. "Bargaining, communication, and limited war." *Conflict Resolution*, 1(1): 19-36
- [33] Schram, P., 2021. "Hassling: How States Prevent a Preventative War." *American Journal of Political Science*, 65(2): 294-308
- [34] Stevens, W., 1940. *Pistols at ten paces: The story of the code of honor in America*, Houghton Mifflin Company
- [35] Vahabi, M. and B. Hassani-Mahmooei, 2016. "The role of identity and authority from anarchy to order: Insights from modeling the trajectory of dueling in Europe," *Economic Modelling*, 55: 57-72
- [36] Wells, C. and A. Harwell, 2001. "The end of the affair? Anti-dueling laws and social norms in Antebellum America" *Vanderbilt Law Review*, 54: 1805-1847
- [37] Wiecek, W., 1969, *The Reconstruction of Federal Judicial Power, 1863-1875*, *American Journal of Legal History*, 13: 333-359

[38] Williams, J., 1980. *Dueling in the Old South: Vignettes of Social History*, Texas A&M University Press.