

11-1-2019

## The “Weaponization” of Corpus Linguistics: Testing Heller’s Linguistic Claims

Josh Jones

Follow this and additional works at: <https://digitalcommons.law.byu.edu/jpl>



Part of the [Law Commons](#)

---

### Recommended Citation

Josh Jones, *The “Weaponization” of Corpus Linguistics: Testing Heller’s Linguistic Claims*, 34 BYU J. Pub. L. 135 (2019).

Available at: <https://digitalcommons.law.byu.edu/jpl/vol34/iss1/6>

This Comment is brought to you for free and open access by BYU Law Digital Commons. It has been accepted for inclusion in Brigham Young University Journal of Public Law by an authorized editor of BYU Law Digital Commons. For more information, please contact [hunterlawlibrary@byu.edu](mailto:hunterlawlibrary@byu.edu).

# The “Weaponization” of Corpus Linguistics: Testing *Heller*’s Linguistic Claims

## I. INTRODUCTION

In its controversial landmark decision of *District of Columbia v. Heller*,<sup>1</sup> the United States Supreme Court ruled that the Second Amendment of the United States Constitution protects an individual right to carry operational firearms in the home for the purpose of self-defense.<sup>2</sup> To do so, the Court relied on the assumption that the right to *bear arms* was originally understood to encompass the actual carrying of personal weapons (in case of confrontation).<sup>3</sup> But the Court acknowledged that at the time of the Founding, the phrase *bear arms* also had “an idiomatic meaning that was significantly different than its natural meaning: ‘to serve as a soldier, do military service, fight,’ or ‘to wage war.’”<sup>4</sup> Justice John Paul Stevens adopted this so-called idiomatic sense of *bear arms* in his dissent, and concluded that the Second Amendment protects the narrower right of the people to maintain well-regulated state militias.<sup>5</sup>

This Note introduces new corpus linguistics research that suggests both Justice Antonin Scalia’s majority opinion and Justice Stevens’s dissenting opinion relied on inaccurate historical linguistic claims.

First, this Note finds that contrary to Justice Stevens’s assertion, there is currently no evidence to support the claim that *keep and bear arms* was a legal term of art or that the Second Amendment established a “unitary right.” Rather, it is more likely that the Second Amendment protects both a right of the people to “keep arms” and a separate right of the people to “bear arms.”

Second, because most corpus linguistics scholars that have analyzed the Second Amendment have focused on whether *bear arms* was

---

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

2. *Id.* at 635.

3. *Id.* at 584, 589.

4. *Id.* at 586.

5. *Id.* at 637 (Stevens, J., dissenting).

used more often in “military” or “collective” contexts than “individual” contexts, most of the available evidence has been skewed in favor of the conclusion that the Amendment protects a more limited collective militia right rather than a more expansive individual right. By contrast, this Note focuses on dividing the recorded uses of *bear arms* into the two camps delineated by the Court: the more literal “carrying” sense (what Justice Scalia referred to as the “natural” sense) and the specialized military sense (what both the majority and dissenting opinions referred to as the “idiomatic” sense). While this Note’s results finding that the phrase *bear arms* was recorded more often in its specialized sense than its carrying sense in the latter half of the eighteenth century arguably still support the conclusions of this past research, they also suggest that the *Heller* Court’s individual rights interpretation of the Amendment is more defensible than these researchers have suggested. Specifically, this Note’s research shows that the carrying sense of *bear arms* made up approximately one-fifth to two-fifths of recorded uses of the term in Founding Era American texts.<sup>6</sup>

Third and finally, this Note confirms that it is emphatically not true that *bear arms* bore its specialized sense (“idiomatic meaning”) in the Founding Era only when followed by the preposition *against*.

Part I discusses popular theories of the Second Amendment and explains which reading the U.S. Supreme Court adopted in *District of Columbia v. Heller*. Part II explains how original ordinary meaning is important to the Court’s continued interpretation of the Amendment and how corpus linguistics can help scholars and judges uncover that original ordinary meaning. Part III describes recent corpus linguistics research on the Second Amendment. Part IV identifies a few of *Heller*’s linguistic claims and explains how this Note used corpus linguistics to test those claims. Part V discusses the results of those tests. Part VI acknowledges the limits of this Note’s conclusions and suggests areas for future research. The Note then concludes.

---

6. The searches for this Note were conducted near the end of 2018. For details on which texts were considered, see Part II.D.

## II. RULES OF ENGAGEMENT: COMPETING THEORIES OF THE SECOND AMENDMENT

### *A. The Collective Rights, Individual Rights, and Insurrectionist Theories of the Second Amendment*

The Second Amendment to the U.S. Constitution provides that, “[a] well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.”<sup>7</sup> Broadly speaking, there are three popular theories of what the Second Amendment was designed to do and what it protects today.

The first theory is sometimes referred to as the “collective rights” theory and posits that the Amendment was meant to protect state militias (which the U.S. Constitution subjugated to the federal government in several clauses) from the new national government. As a consequence, individual citizens under this theory have—at most—a right to possess weapons in connection with service in those state militias. Prior to *Heller*, the collective rights theory had the support of the Supreme Court (three times over),<sup>8</sup> as well as the scholarly consensus before the late 1980s.

The second theory is the “individual rights” theory, which argues that “the right of the people to keep and bear arms” protects the individual right to possess and carry weapons for the purposes of self-defense. This theory has been championed by conservative scholars like Joyce Lee Malcolm<sup>9</sup> and liberals such as the Pulitzer Prize-winning historian Leonard Levy<sup>10</sup> and Harvard Law Professor Laurence Tribe.<sup>11</sup>

The third theory is something of a hybrid and is sometimes called the “insurrectionist theory.” Like the individual rights theory, the in-

---

7. U.S. CONST. amend. II.

8. *United States v. Miller*, 307 U.S. 174 (1939); *Presser v. Illinois*, 116 U.S. 252 (1886); *United States v. Cruikshank*, 92 U.S. 542 (1876).

9. See JOYCE LEE MALCOLM, *TO KEEP AND BEAR ARMS: THE ORIGINS OF AN ANGLO-AMERICAN RIGHT* (1994).

10. See LEONARD W. LEVY, *ORIGINS OF THE BILL OF RIGHTS* 133–49 (1999).

11. See 1 LAURENCE H. TRIBE, *AMERICAN CONSTITUTIONAL LAW* 898, 901–02 (3d ed. 2000).

surrectionist theory favors private gun ownership. But like the collective rights theory, it posits that the right has little to do with individual self-defense. The insurrectionist theory argues that the Amendment protects the right of the people collectively to bear arms, but for the much more serious purpose of keeping a tyrannical government in check. This camp is the domain of conservative scholars like Stephen Halbrook<sup>12</sup> and prominent liberal law professors such as Sanford Levinson of the University of Texas<sup>13</sup> and Akhil Reed Amar of Yale.<sup>14</sup> At a high level, these insurrectionist theorists could be regarded as cousins of the individual rights theorists.

When the Supreme Court reentered the Second Amendment fray in *Heller*, the United States Courts of Appeals were split on the correct theory of the Second Amendment, with three circuits adopting an individual rights reading and ten circuits adopting one version or another of the collective rights reading.<sup>15</sup>

---

12. See STEPHEN P. HALBROOK, *THAT EVERY MAN BE ARMED: THE EVOLUTION OF A CONSTITUTIONAL RIGHT* 77 (1984).

13. While Professor Levinson's first foray might have been less definitive, see Sanford Levinson, *The Embarrassing Second Amendment*, 99 *YALE L.J.* 637 (1989), he has since clarified that he believes more specifically in the "insurrectionist" view of the Second Amendment, see Sanford Levinson, *The NRA Didn't Help*, *N.Y. REV. BOOKS* (2016) ("I have been publicly critical of Justice Scalia's majority argument in the *Heller* case precisely because, like most lawyers, whether conservative or liberal, he preferred to ignore the 'insurrectionist' origins of the amendment in favor of a tendentious and I think insupportable rewriting of American legal history turning the amendment, as understood in 1791, into the protection of an individual right to defend oneself against criminals trying to break into one's home.").

14. See Akhil Reed Amar, *Second Thoughts*, *THE NEW REPUBLIC* (July 11, 1999) <https://newrepublic.com/article/73718/second-thoughts> ("A modern translation of the amendment might thus be: 'An armed and militarily trained citizenry being conducive to freedom, the right of the electorate to organize itself militarily shall not be infringed.' Call this the communitarian reading as opposed to the statist and libertarian readings that dominate modern discourse. Statists anachronistically read the 'militia' to mean the government (the paid professional officialdom) rather than the people (the ordinary citizenry). Equally anachronistically, libertarians read 'the people' to mean atomized private persons, each hunting in his own private Idaho, rather than the citizenry acting collectively. But, when the Constitution speaks of 'the people' rather than 'persons,' the collective connotation is primary.").

15. PATRICK J. CHARLES, *THE SECOND AMENDMENT: THE INTENT AND ITS INTERPRETATION BY THE STATES AND THE SUPREME COURT* 6 (2009).

*B. Self-Defense or State Militias? The Debate in District of Columbia v. Heller*

By the mid-2000s, the District of Columbia had effectively banned handgun possession by first criminalizing the carrying of unregistered firearms and then completely prohibiting handgun registration.<sup>16</sup> The District also required a license to carry handguns and mandated that residents keep all firearms “unloaded and disassembled or bound by a trigger lock or similar device” unless they were kept at a place of business or being immediately used for recreational purposes.<sup>17</sup>

Challenger Dick Heller was a D.C. special police officer who legally carried a handgun while he was on duty in the District.<sup>18</sup> After the city rejected his request to register a handgun he wished to keep in his home, Heller sued the District in federal district court, claiming that the Second Amendment protected his right to carry a functional firearm in the home without a license.<sup>19</sup> Heller sought to enjoin the city’s ban on handgun registration, as well as the licensing and trigger-lock requirements “insofar as [they] prohibit[ed] the use of ‘functional firearms within the home.’”<sup>20</sup> The United States District Court dismissed Heller’s claim,<sup>21</sup> but a panel of the U.S. Court of Appeals for the District of Columbia Circuit reversed, holding that the Second Amendment protects an individual right to possess functional firearms in the home for the purposes of self-defense.<sup>22</sup>

The Supreme Court affirmed the panel’s decision.<sup>23</sup> Justice Scalia, writing for the majority, described the introductory portion of the Second Amendment (“A well regulated Militia, being necessary to the security of a free State”) as the “prefatory clause” and the second portion of the Amendment (“the right of the people to keep and bear Arms,

---

16. *District of Columbia v. Heller*, 554 U.S. 570, 574–75 (2008).

17. *Id.* at 575.

18. *Id.*

19. *Id.* at 575–76.

20. *Id.* at 576.

21. *Parker v. District of Columbia*, 311 F. Supp. 2d 103, 109 (D.D.C. 2004).

22. *Parker v. District of Columbia*, 478 F.3d 370, 395, 399–401 (D.C. Cir. 2007).

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

shall not be infringed”) as the “operative clause.”<sup>24</sup> Relying on the operative clause’s text and history, he found that the phrase *to keep and bear arms* works with the Amendment’s prefatory clause to “guarantee the individual right to possess and carry weapons in case of confrontation.”<sup>25</sup> While the Court declined to outline the exact contours of this right, Justice Scalia concluded that, “whatever else it leaves to future evaluation, it surely elevates above all other interests the right of law-abiding, responsible citizens to use arms in defense of hearth and home.”<sup>26</sup>

Justice Stevens disagreed. In a dissenting opinion joined by three other Justices, he argued that because “[t]he Second Amendment was adopted to protect the right of the people of each of the several States to maintain a well-regulated militia[,]” it protects only “the right to keep and bear arms *for certain military purposes*,”—i.e., it does not protect “the nonmilitary use and ownership of weapons.”<sup>27</sup>

So in *Heller* the Supreme Court lent support to two of the main camps in the Second Amendment debate—the collective rights theory and the individual rights theory. Post-*Heller*, the battle for the correct history and interpretation of the Second Amendment has continued, with scholars and pundits casting and recasting arguments in support of either the individual rights and insurrectionist theories<sup>28</sup> or the collective rights theory.<sup>29</sup>

---

24. *Id.* at 577.

25. *Id.* at 592.

26. *Id.* at 635.

27. *Id.* at 637 (Stevens, J., dissenting) (emphasis added).

28. See David French, *Of Course the Second Amendment Protects an Individual Right to Keep and Bear Arms*, NAT’L REV. (Apr. 13, 2016 8:00 AM) <https://www.nationalreview.com/2016/04/second-amendment-protects-individual-right-keep-bear-arms/>; David Harsanyi, *The Second Amendment Has Always Been an Individual Right*, THE FEDERALIST (Nov. 29, 2018) <https://thefederalist.com/2018/11/29/second-amendment-always-individual-right/>.

29. CHARLES, *supra* note 15.

### III. CORPUS LINGUISTICS: A CLUE TO ORIGINAL, ORDINARY MEANING

#### A. *The Importance of Original, Ordinary Meaning in Constitutional Interpretation*

As the *Heller* Court put it, “[t]he Constitution was written to be understood by the voters; its words and phrases were used in their normal and ordinary . . . meaning.”<sup>30</sup> Judges, including the Justices of the Supreme Court, have increasingly purported to be guided by the original, ordinary meaning of the text of the Constitution. *Heller* is a good example of this—even the four dissenting Justices relied in part on what they understood to be the original understanding of “the right to keep and bear arms.”<sup>31</sup>

If it is true that most judges would not align themselves with a strong Justice Clarence Thomas-style originalism or even a more precedent-fearing Justice Scalia-style originalism, it is also true that to a certain extent, “[w]e are all originalists”<sup>32</sup> now.<sup>33</sup> Most judges seem to believe that the starting point of any constitutional inquiry is “the original communicative content of the words of the Constitution.”<sup>34</sup> Most

30. *Heller*, 554 U.S. at 576 (quoting *United States v. Sprague*, 282 U.S. 716, 731 (1931)). Of course, what “ordinary meaning” actually means is not always clear, as Utah Supreme Court Associate Chief Justice Thomas R. Lee and Stephen Mouritsen have pointed out. Thomas R. Lee & Stephen C. Mouritsen, *Judging Ordinary Meaning*, 127 *YALE L.J.* 788, 798–800 (2018) (giving examples of how judges have used “ordinary meaning” to refer to possible meaning, common meaning, most frequent meaning, exclusive meaning, and prototypical meaning).

31. *Heller*, 554 U.S. at 637–38 (Stevens, J., dissenting) (“The view of the Amendment we took in *Miller*—that it protects the right to keep and bear arms for certain military purposes, but that it does not curtail the Legislature’s power to regulate the nonmilitary use and ownership of weapons—is both the most natural reading of the Amendment’s text and the interpretation most faithful to the history of its adoption.”).

32. Jonathan H. Adler, *The Judiciary Committee Grills Elena Kagan*, *WASH. POST*, (June 29, 2010, 1:18PM), <http://www.washingtonpost.com/wp-dyn/content/article/2010/062010/o6/29/AR2010062902652AR210062902652.html> (quoting Justice Elena Kagan as saying, “We are all originalists,” in her 2010 confirmation hearing).

33. This is not an attempt to broaden the traditional formal or colloquial definitions of “originalism” to the point of meaninglessness—rather, it is an attempt to show that even many of those who would normally not consider themselves “originalists” are still interested in discovering and considering original communicative content.

34. Thomas R. Lee & James C. Phillips, *Data-Driven Originalism*, 167 *U. PA. L. REV.* 261, 270 (2019). Of course, Justice Lee and Professor Phillips are making the more modest claim that all originalists (including original intentions originalists and original methods originalists)



even seem to agree that this original communicative content is the ending point of constitutional interpretation where such content is “clearly established.”<sup>35</sup>

To be sure, there may be a great deal of dispute among “originalists” (again, speaking broadly) about whether the original understanding of a Constitutional text in a given case is constraining—or even determinable. But there seem to be just as few judges willing to say that the original understanding of the Constitution is not fixed (and therefore, irrelevant) as there are judges willing to say that the text of a statute is not fixed (and therefore, irrelevant).<sup>36</sup> So the original understanding or communicative content of a text is of interest to anyone called upon to interpret a Constitutional provision—however large a role that interpreter deems that linguistic determination should ultimately play. Truly, then, “[a]ll the action in . . . constitutional interpretation is . . . *after* the threshold inquiry into original communicative content.”<sup>37</sup>

Assuming judges can discover what the original communicative content of a Constitutional provision is, how should they go about it? One particularly promising and powerful tool is corpus linguistics.

---

are in some degree original public meaning originalists, not that all constitutional interpreters are originalists.

35. *Id.*

36. See Lawrence B. Solum, *The Fixation Thesis: The Role of Historical Fact in Original Meaning*, 91 NOTRE DAME L. REV. 1, 2 (2015) (contrasting the “Fixation Thesis” with the “Constraint Principle” and arguing that perhaps a better definition of a living constitutionalist is one who either (1) “accept[s] that the linguistic meaning (or more precisely, *communicative content*) of the constitutional text is fixed” but that the “legal meaning (or more precisely *legal content*) of the Constitution . . . changes over time,” or (2) “accept[s] both fixation and constraint, but believe[s] that the actual meaning of specific provisions of the constitutional text is underdeterminate . . .”). Even the late Judge Harry Pregerson, who infamously declared in his confirmation hearing that, “[I]f I had to follow my conscience or the law, I would follow my conscience,” never actually declared the original communicative content of words irrelevant—he just thought it wasn’t determinative in all cases. Emily Langer, *Henry Pregerson, Federal Judge Who Placed Conscience Before Law, Dies at 94*, WASH. POST (November 30, 2017), [https://www.washingtonpost.com/local/obituaries/harry-pregerson-federal-judge-who-placed-conscience-before-law-dies-at-94/2017/11/30/03ee252a-d5e1-11e7-95bf-df7c19270879\\_story.html?utm\\_term=.f17ab5b033b5](https://www.washingtonpost.com/local/obituaries/harry-pregerson-federal-judge-who-placed-conscience-before-law-dies-at-94/2017/11/30/03ee252a-d5e1-11e7-95bf-df7c19270879_story.html?utm_term=.f17ab5b033b5).

37. Lee & Phillips, *supra* note 34, at 266 (emphasis added).

*B. Corpus Linguistics: A Way to Original, Ordinary Meaning*

In simplest terms, corpus linguistics is the empirical analysis of how a given group of people (a “speech community”) used a given word or phrase at a given time. Corpus linguists use large databases of words called corpora (singular: corpus) that are comprised of the text of newspapers, books, speeches, television and movie transcripts, etc., from the desired time period to see how a speech community actually used words—how often, and in what context.<sup>38</sup> The legal application is obvious—by looking at how words naturally occurred in a speech community’s past communications, judges can more objectively approximate how that speech community would (or should) have understood those words if and when they became the subject of a heated legal dispute.<sup>39</sup> Thus, a corpus linguistics analysis enhances the objectivity of legal interpretation’s search for original, “ordinary meaning”<sup>40</sup> in at least two interrelated ways.

First, a corpus linguistics analysis increases accuracy and determinacy because judges can see how words are used in hundreds, thousands, or even millions of different contexts; they don’t have to base linguistic claims on a few isolated literary examples or dictionary definitions (or worse, their own naked intuition). Without corpus data, judges are not just operating with limited—and therefore less reliable

38. See James Heilpern, *Dialects of Art: A Corpus-Based Approach to Technical Term of Art Determinations in Statutes*, 58 JURIMETRICS 377, 389 (2018).

39. In this way, corpus linguistics analysis avoids a common criticism of relying on legislative history—namely, that it is susceptible to individuals “salting the record,” or underhandedly dictating the meaning of a word or phrase by preemptively utilizing it in a new and creative way. Whatever the prevalence of this “salting the record” problem actually is when it comes to legislative history, it is impossible to imagine that enough members of a speech community would (or could) correctly anticipate a discrete linguistic legal controversy enough to systematically change their use of that language *just* to alter the outcome of that particular case. In fact, because corpus linguistics looks at how words were used in specific moments in time, it specifically guards against “linguistic drift” (the phenomenon that words can and do change their meanings over time). See Lee & Phillips, *supra* note 34 at 265.

40. Again, what “ordinary meaning” actually means is not always clear. See Lee & Mouritsen, *supra* note 30, at 798–800. But whatever we mean by “ordinary meaning” in any given case or context, any time we invoke it we are making some claim about the frequency with which the word or phrase is used. *Id.* at 831–32 (“[C]orpora can be used to measure the statistical *frequency* of words and word senses in a given speech community and over a given time period. Whether we regard the ordinary meaning of a given word to be the *possible*, *common*, or the *most common* sense of that word in a given context, linguistic corpora allows us to determine empirically where a contested sense of a term falls on that continuum.”).

and representative—information, they are leaving themselves more susceptible to motivated reasoning and confirmation bias.<sup>41</sup> It is a lot easier to skew data (innocently or otherwise) when your analysis is based on texts of your own choosing.

Second, corpus linguistics analysis improves the transparency of the original, ordinary meaning inquiry because it is a replicable and therefore falsifiable enterprise.<sup>42</sup> Citing corpus linguistics as the basis for a claim regarding the frequency or ordinariness of a term is the equivalent of showing one's work. When a court claims that a word had a given meaning at a given time because of a corpus search, experts, higher courts, and other third-party observers can look at the court's methodology and data and perform their own corpus linguistics analysis to verify the court's results and conclusions.<sup>43</sup> (Unfortunately, this also means that when a recent law school graduate performs a corpus search and makes certain claims about the Second Amendment, much more qualified academics can review and critique his work.)

In short, corpus linguistics can enhance the accuracy of judges' linguistic determinations and help constrain their natural biases.

### *C. Corpus Linguistics: A Tool as Old as Time*

"Corpus linguistics" might sound strange and intimidating—not unlike a *Harry Potter* incantation<sup>44</sup>—but the reality is that each of us performs a kind of corpus linguistics in his or her head every day. Every time someone speaks to us, we are taking those spoken words and giving them meaning based on—among other things<sup>45</sup>—how we have

---

41. See *id.* at 867–68 (“Without [corpus linguistics], judges will tap into their linguistic memory to make assessments about the frequency or prototypicality of a given sense of a statutory term. Such recourse to memory and judicial intuition is neither transparent nor replicable. Nothing is statistically worse than one data point—especially a biased one. The potential for motivated reasoning is evident.”).

42. See *id.* at 829.

43. See Lee & Phillips, *supra* note 34, at 292–93 (“With traditional originalist tools, there’s a take-my-word-for-it element. But corpus analysis democratizes the inquiry, opening up the data and the conclusions drawn from it to everyone. No one has to take the originalist’s word for it. Anyone can look at the same data and try to replicate or falsify the conclusions.”).

44. See, e.g., J.K. ROWLING, *HARRY POTTER AND THE HALF-BLOOD PRINCE* 238 (2005) (“There were many crossings-out and alterations, but finally, crammed into a corner of a page, the scribe: *Levicorpus (nvbl)*.”).

45. See Lee & Mouritsen, *supra* note 30, at 815–16 (“Whenever we engage in the act of

heard and used those words in dozens, hundreds, or thousands of contexts. In this sense, all formal or computerized corpus linguistics aims to do is make that root database or corpus more representative of the relevant population. In other words, when we perform a corpus search based on texts from a targeted speech community, we are estimating what those words mean based on the shared experiences of—ideally—all the people in the relevant speech community, rather than the linguistic experiences of just one person. You could say corpus linguistics is an attempt to crowdsource linguistic intuition.

Even when it comes to corpus linguistics' application to particular cases and controversies, this “new” field is simply a more robust and technologically advanced version of what judges and legal scholars have been trying to accomplish for decades: determine the meaning of words by looking at how they are used in other relevant contexts.

For example, in *Muscarello v. United States*, Justice Stephen Breyer “surveyed modern press usage . . . by searching computerized newspaper databases—both the New York Times data base in Lexis/Nexis, and the ‘U.S. News’ data base in Westlaw” to confirm the Court’s interpretation of *carry* as it pertained to guns.<sup>46</sup> Likewise, in *Taniguchi v. Kan Pacific Saipan, Ltd.*, Justice Samuel Alito conducted an extensive “survey of . . . relevant dictionaries” to determine that the “ordinary or common meaning” of *interpreter* did not include translators of written texts.<sup>47</sup>

And Supreme Court Justices are not alone. Judge Richard Posner conducted a Google search in *United States v. Costello*—“based on the supposition that the number of hits per term is a rough index of the frequency of its use”—to conclude that “allowing your boyfriend

---

communication—whenever a speaker speaks and a hearer hears—our minds take in the relevant interpretative information at once. We take account of the formal aspects of an utterance (its lexical, syntactic, and semantic content), as well as the pragmatic (in the linguistic sense of the term) aspects of the utterance (for example, the physical or social setting in which it is uttered). We interpret an utterance as part of a community of speakers of a language (with shared linguistic conventions and a shared understanding of different linguistic registers), and we necessarily interpret the utterance according to the shared linguistic conventions that exist at the time of the utterance.”).

46. *Muscarello v. United States*, 524 U.S. 125, 129 (1998).

47. *Taniguchi v. Kan Pacific Saipan, Ltd.*, 556 U.S. 560, 569 (2012).

to live with you may not be harboring, even if you know he shouldn't be in the United States.”<sup>48</sup>

Indeed, some judges have begun to rely on corpus linguistics as the key to resolving cases dealing with linguistic ambiguity. Associate Chief Justice Thomas Lee of the Utah Supreme Court, for example, has relied on corpus linguistics in a variety of contexts.<sup>49</sup> In 2016, the Michigan Supreme Court used corpus linguistics to determine that *information* as used by the Michigan State Legislature included false as well as true information.<sup>50</sup> And just a few terms ago, Justice Thomas cited corpus linguistics data in his *United States v. Carpenter*<sup>51</sup> dissent and an article relying on corpus linguistics data in his *Lucia v. SEC*<sup>52</sup> concurrence (the latter was joined by Justice Neil Gorsuch).

#### D. The Corpora

Today, two of the most relevant and popular corpora for research on the original meaning of the Constitution are Brigham Young University's Corpus of Founding Era American English (COFEA) and the Corpus of Early Modern English (COEME). COFEA is a database currently comprised of over 154 million words from American documents “including letters, diaries, newspapers, non-fiction books, fiction, sermons, speeches, debates, legal cases, and other legal materials” from the beginning of the reign of King George III in 1760 to the

---

48. *United States v. Costello*, 666 F.3d 1040, 1044–45 (7th Cir. 2012).

49. See, e.g., *State v. Rasabout*, 356 P.3d 1258, 1275–82 (Utah 2015) (Lee, J., concurring) (using corpus linguistics to confirm that “*discharge* of a weapon is used overwhelmingly in the single shot sense”); *State v. J.M.S. (In re Interest of J.M.S.)*, 280 P.3d 410, 418–19 (Utah 2011) (Lee, J., concurring) (using corpus linguistics to confirm that the “ordinary and accepted meaning of the term ‘procedure’ is limited to medical methods”); *In re Adoption of Baby E.Z. v. T.I.Z.*, 266 P.3d 702, 724 n.21 (Utah 2011) (Lee, J., concurring) (using corpus linguistics to confirm that the federal Parental Kidnapping Prevention Act’s use of “custody determination” does not reach adoption proceedings).

50. *People v. Harris*, 885 N.W.2d 832, 838–42 (Mich. 2016).

51. *Carpenter v. United States*, 138 S. Ct. 2206, 2238 n.4 (2018) (Thomas, J., dissenting).

52. *Lucia v. SEC*, 138 S. Ct. 2044, 2056–57 (2018) (Thomas, J., concurring).

death of George Washington in 1799.<sup>53</sup> By contrast, COEME is a collection of English books and documents comprised of 40,300 texts from the years 1475 to 1800.<sup>54</sup>

### *E. Two Tools of Corpus Linguistics*

There are several corpus tools that can help shed light on ordinary meaning, but some of the most popular are concordance lines and frequency data. These will be briefly explained so that the reader is better equipped to understand the research discussed in this Note.

#### *1. Concordance lines*

The concordance function (also known as the *key word in context* or “KWIC” function) has been aptly described as “the meat-and-potatoes of determining meaning from corpus analysis,”<sup>55</sup> because it “allows . . . users to review a particular word or phrase in hundreds of contexts, all on the same page of running text.”<sup>56</sup> Put simply, concordance lines are the strings of text a searchable corpus returns in response to a query; they provide the crucial context in which different instantiations of the searched term have occurred. By coding or categorizing a simple random sample of concordance lines, researchers can survey the sense-distribution of the searched term and extrapolate conclusions about how the term is used in the full corpus.<sup>57</sup> Again, this is something judges have been doing for quite some time, albeit on a much smaller and more rudimentary scale—take, for example, the *Muscarello* Court’s analysis of certain text samples from the *King James Bible*, *Robinson Crusoe*, and *Moby Dick*.<sup>58</sup>

---

53. BYU LAW: LAW & CORPUS LINGUISTICS, <https://lawcorpus.byu.edu/> (last visited on Oct. 23, 2019). “The majority of texts have been pulled from the following six sources: the National Archive Founders Online; William S. Hein & Co., HeinOnline; Text Creation Partnership (TCP) Evans Bibliography (University of Michigan); Elliot’s Debates; Farrand’s Records; and the U.S. Statutes-at-Large from the first five Congresses.” *Id.*

54. *Id.*

55. Lee & Phillips, *supra* note 34, at 308–09.

56. Lee & Mouritsen, *supra* note 30, at 832.

57. Of course, ideally one would code all the concordance lines a search returns—but unless the number of concordance lines is relatively small, this is usually a daunting task.

58. *Muscarello v. United States*, 524 U.S. 125, 129 (1998).

## 2. Frequency data

Frequency data allow us to see how often a word is used, as well as how often that word is used in a particular “genre” or register of documents (e.g., legal texts, colloquial texts),<sup>59</sup> which in turn may provide us valuable insights into a word’s meaning.<sup>60</sup> In the context of COFEA, for example, if a phrase appears more frequently in Hein Online documents (a collection of legal texts) than in Evans Early American Imprints documents (a collection of early American books, pamphlets, and broadsides), we might have reason to believe that the phrase is a legal term of art, or that at least one sense of the phrase bears a technical or specialized legal meaning.<sup>61</sup>

### IV. THE “WEAPONIZATION” OF CORPUS LINGUISTICS

#### A. Applications for the Second Amendment

Scholars have long recognized corpus linguistics’ potential in the Second Amendment debate. In *Heller*, several linguists submitted an amicus brief that drew conclusions about the meaning of *bear arms* from 115 Founding Era documents.<sup>62</sup>

This scholarship has continued because the Supreme Court relied heavily on historical linguistic claims in *Heller*. While the Court has never settled on one sense of “ordinary meaning”<sup>63</sup> or decided that the

---

59. See Lee & Phillips, *supra* note 34, at 290.

60. Note that coding is also required to gain this latter insight regarding in which “genres” a certain sense of a word appears. See *id.* at 291.

61. See *id.* at 293–94; see also James Cleith Phillips & Sara White, *The Meaning of the Three Emoluments Clauses in the U.S. Constitution: A Corpus Linguistics Analysis of American English from 1760–1799*, 59 S. TEX. L. REV. 181, 208 (2017).

62. Brief for Professors of Linguistics and English Dennis E. Baron et al. in Support of Petitioners, District of Columbia v. Heller, 552 U.S. 1229 (2008) (No. 07-290) [hereinafter Linguists’ Brief].

63. Sometimes the Court has relied on a word’s most common meaning. See, e.g., *Taniguchi v. Kan Pacific Saipan, Ltd.*, 556 U.S. 560, 568 (2012) (“That a definition is broad enough to encompass one sense of a word does not establish that the word is *ordinarily* understood in that sense.”); *FCC v. AT&T Inc.*, 562 U.S. 397, 403 (2011) (“‘Personal’ ordinarily refers to individuals. We do not usually speak of personal characteristics, personal effects, personal correspondence, personal influence, or personal tragedy as referring to corporations or other artificial entities.”). At other times, members have seemed to adopt a possible meaning as ordinary meaning. See, e.g., *Muscarello v. United States* 524 U.S. 125, 140 (1998) (Ginsburg, J., dissenting).

*original* ordinary meaning is always the proper basis for a decision,<sup>64</sup> the *Heller* Court explicitly claimed to be guided by the principle that, “[t]he Constitution was written to be understood by the voters; its words and phrases were used in their normal and ordinary . . . meaning.”<sup>65</sup>

Specifically, *Heller* wrestled with the linguistic ambiguity surrounding several phrases—the *right of the people, keep arms, bear arms*, and *keep and bear arms* as a whole. Even if the Court would have reached the same conclusion based on other grammatical or historical claims or policy considerations, how the Founding generation understood the words of the Second Amendment was held up as a key reason for the outcome in *Heller*. As such, several scholars have attempted to use corpus linguistics to test whether the historical linguistic claims made by Justice Scalia and Justice Stevens are true.

### *B. Corpus Linguistics Research on the Second Amendment to Date*

#### *1. Bear arms*

By far the most analyzed portion of the Second Amendment is the phrase *bear arms*. This was the focus of the Linguists’ Brief in *Heller*, which surveyed 115 instances of *bear arms* from “books, pamphlets, broadsides and newspapers from the period between the Declaration of Independence and the adoption of the Second Amendment.”<sup>66</sup> Relying in part on the fact that 110 of these instances “were used in a clearly military context,” the brief concluded that “the right that is protected is the right of the people to serve in the military and keep military weaponry for such service.”<sup>67</sup>

---

64. The Court has not always been so disciplined. See, e.g., *Trop v. Dulles*, 356 U.S. 86, 100-01 (1958) (“The Court [has] recognized . . . that the words of the Amendment are not precise, and that their scope is not static. The Amendment must draw its meaning from the evolving standards of decency that mark the progress of a maturing society.”).

65. *District of Columbia v. Heller*, 554 U.S. 570, 576 (2008) (quoting *United States v. Sprague*, 282 U.S. 716, 731 (1931)).

66. Linguists’ Brief at 24.

67. *Id.* at 3, 24.



One of these linguists, Professor Dennis Baron, has since performed searches using both COFEA and COEME.<sup>68</sup> His searches for *bear arms* returned 310 hits in COFEA and 1578 hits in COEME.<sup>69</sup> After evaluating an impressive 1300 of these concordance lines and removing duplicates, he concluded that 900 instances “refer[red] to war, soldiering, or other forms of armed action by a group rather than an individual” while only seven were “ambiguous or carried no military connotation.”<sup>70</sup> Professor Baron argues that this means that “the natural meaning of *bear arms* in the framers’ day was military or quasi-military.”<sup>71</sup>

Using a slightly different collective sense versus individual sense framework, University of Chicago professors Alison LaCroix and Jason Merchant analyzed 181 references of *bear arms* from a 1760 to 1795 *Google Books* search and concluded that 67.4% were used “in a collective sense,” while just 18.2% were used “in an individual sense.”<sup>72</sup>

In response to Professor Baron’s preliminary findings<sup>73</sup> and Professor LaCroix’s research, Professor Josh Blackman and James Phillips sampled 50 COFEA concordance lines from 1760 to 1799 and also concluded that “the overwhelming majority of instances of ‘bear arms’ was in the military context.”<sup>74</sup> Notably, Blackman and Phillips searched COFEA not just for *bear arms*, but rather for any instance of

---

68. Dennis Baron, *Corpus Evidence Illuminates the Meaning of Bear Arms*, 46 HASTINGS CONST. L.Q. 509 (2019).

69. *Id.* at 510.

70. *Id.* at 510–11. It is doubtful that searching for the phrase *bear arms* (rather than searching for any form of *bear* within a certain span of *arms*) is the most comprehensive way to conduct this research. It is also unclear why all the years of data from 1475 to 1800 would be relevant for an inquiry into how the framers and ratifiers of the Second Amendment would have understood the phrase. But since Professor Baron’s framework is based on the military versus nonmilitary distinction and he found only a handful of examples of nonmilitary uses, having too wide a timeframe does not seem to have altered the analysis much.

71. *Id.* at 511.

72. Allison L. LaCroix, *Historical Semantics and the Meaning of the Second Amendment*, PANORAMA (August 3, 2018), <http://thepanorama.shear.org/2018/08/03/historical-semantics-and-the-meaning-of-the-second-amendment/>.

73. Dennis Baron, *Antonin Scalia Was Wrong About the Meaning of ‘Bear Arms’*, WASH. POST (May 21, 2018), [https://www.washingtonpost.com/opinions/antonin-scalia-was-wrong-about-the-meaning-of-bear-arms/2018/05/21/9243ac66-5d11-11e8-b2b8-08a538d9dbd6\\_story.html](https://www.washingtonpost.com/opinions/antonin-scalia-was-wrong-about-the-meaning-of-bear-arms/2018/05/21/9243ac66-5d11-11e8-b2b8-08a538d9dbd6_story.html).

74. Josh Blackman & James C. Phillips, *Corpus Linguistics and the Second Amendment*, HARV. L. REV. BLOG (Aug. 7, 2018), <https://blog.harvardlawreview.org/corpus-linguistics-and-the-second-amendment/>.

the words *arm* or *arms* within four words of any form of the verb *to bear*.

Lawyer and linguist Neal Goldfarb, who began publishing extensive Second Amendment corpus linguistics research as I wrote this Note,<sup>75</sup> has taken a different approach. In fact, he uses a framework similar to the one I use in Parts IV and V. Instead of jumping straight to a conclusion on whether the Second Amendment protects a collective right to serve in the militia or an individual right to own and carry firearms, Goldfarb decided to take the *Heller* opinion at its word and discern whether *bear arms* actually meant to literally carry weapons.<sup>76</sup>

First, Goldfarb performed preliminary collocation and concordance line analyses on *bear* and *carry* and concluded that, “at the time of the framing of the Constitution, *bear* was in general not synonymous with *carry*.”<sup>77</sup> More specifically, Goldfarb interpreted this data to mean that by the time of the Founding, *carry* was being used more to discuss the wearing or moving of tangible objects, while *bear* was being used more to refer to figurative weights and burdens.<sup>78</sup>

Second, Goldfarb performed a concordance line analysis on *arms* to determine whether its ordinary meaning was synonymous with *weapons*.<sup>79</sup> After some preliminary research, he concluded that while *arms* often did literally mean *weapons*, there were many senses of *arms* that he believed were parts of more figurative or specialized military phrases (e.g., *to arms*, *force of arms*).<sup>80</sup> He then performed several corpus searches and concluded that of the 706 concordance lines from COFEA’s Evans Early American Imprint Series, the ratio of weapons senses to military senses was 75 (20.5%) to 290 (79.5%), meaning a

75. Neal Goldfarb, *Corpora and the Second Amendment*, LAWLINGUISTICS, <https://lawlinguistics.com/corpora-and-the-second-amendment/> (last updated Aug. 8, 2018) (listing all Goldfarb’s blog posts on the subject).

76. Goldfarb ultimately tested whether *bear arms* meant *to carry weapons in case of confrontation*, holding the *Heller* Court to its most specific claim.

77. Neal Goldfarb, *Corpora and the Second Amendment: “Bear”*, LAWLINGUISTICS (Dec. 16, 2018, 3:45 PM), <https://lawlinguistics.com/2018/12/16/corpora-and-the-second-amendment-bear/>. Notably, Goldfarb restricted his COEME data to the same years available in COFEA, 1760–1799.

78. *Id.*

79. Neal Goldfarb, *Corpora and the Second Amendment: “Arms”*, LAWLINGUISTICS (Feb. 20, 2019, 3:01 PM), <https://lawlinguistics.com/2019/02/20/corpora-and-the-second-amendment-arms/>.

80. *Id.*

military sense was 3.8 times as common as a weapons sense.<sup>81</sup> Similarly, of the 685 COEME concordance lines, the ratio was 112 (30%) to 262 (70%), meaning a military sense was 2.3 times as common as a weapons sense.<sup>82</sup> On the other hand, of the 707 concordance lines from COFEA's Hein Online and Founders Papers Online, the pattern was just the opposite—there were 413 weapons senses (66%) to 213 military senses (34%), or nearly 2 times as many weapons senses.<sup>83</sup> Goldfarb attributes this discrepancy to the fact that the Founders Papers Online contained significant correspondence relating to the Revolutionary War.<sup>84</sup>

Finally, Goldfarb searched COFEA and COEME for all iterations of *arms* that occurred within four words of any form of the verb *bear* between 1760 and 1799 and found 756 concordance lines.<sup>85</sup> Crucially, he excluded 221 lines—not just those that were patently irrelevant (e.g., *bearing arms* as in *bearing a coat of arms*), but also all proposed or ratified constitutional amendments referring to the right to bear arms (a total of 22 lines).<sup>86</sup> Goldfarb reasoned that “[g]iven that the issue to be decided is how *the right to keep and bear arms* as used in the Second Amendment was likely to have be[en] understood, there [is] nothing to be learned from considering uses of that very phrase or of closely related variants, in a similar context.”<sup>87</sup>

Goldfarb concluded that of his 535 remaining concordance lines, only 11 (2%) “unambiguously” used *bear arms* to mean *carry weapons*.<sup>88</sup> He did, however, admit that he “couldn’t point to a specific factor ruling out the possibility” that an additional 15 lines (2.8%) “would have been understood to express the ‘natural meaning’ that was declared by *Heller*.”<sup>89</sup> In short, Goldfarb concluded that at least 95% of

---

81. *Id.*

82. *Id.*

83. *Id.*

84. *Id.* Of course, it is likely that the Second Amendment was also written with the events of the then-recent Revolutionary War in mind.

85. Neal Goldfarb, *Corpora and the Second Amendment: “Bear Arms” (Part 2)*, LAWNLINGUISTICS (Apr. 30, 2019, 11:18 PM), <https://lawlinguistics.com/2019/04/30/corpora-and-the-second-amendment-bear-arms-part-2/>.

86. *Id.*

87. *Id.*

88. *Id.*

89. *Id.*

all instances of *bear arms* were used in a more “figurative” military sense.<sup>90</sup>

## 2. *Keep arms*

Less research has been done on *keep arms*.<sup>91</sup> Blackman and Phillips searched COFEA for all instances of *arm* or *arms* within four words of any form of the verb *to keep*, but ultimately they were able to code only 18 of their sample size of 50 concordance lines.<sup>92</sup> Of that limited sample, they found around half related to keeping arms “in the military context,” a quarter related to a “private sense,” and the remaining quarter were ambiguous.<sup>93</sup>

## 3. *Keep and bear arms*

As of this writing, there has been little commentary on the fact that the phrase *keep and bear arms* is virtually nonexistent outside the context of the Second Amendment. As this Note reveals, this has significant ramifications for Justice Stevens’s suggestion that the Second Amendment protects a “unitary right.”

## 4. *The right of the people*

Neal Goldfarb has been responsible for virtually all the corpus linguistics commentary on *the right of the people*. Goldfarb takes issue

90. *Id.*

91. Neal Goldfarb did make some interesting observations about the nature of the verb *keep* and raised doubts about whether it doesn’t also have its own touch of idiomaticity, Neal Goldfarb, *Corpora and the Second Amendment: “Keep” (Part 2)*, LAWNLINGUISTICS (Oct. 21, 2018, 11:13 AM), <https://lawlinguistics.com/2018/10/21/corpora-and-the-second-amendment-keep-part-2/>, but he ultimately concluded that he did not see any value in conducting a specific *keep arms* analysis. Neal Goldfarb, *Corpora and the Second Amendment: Changing My Mind About a Change of Mind*, LAWNLINGUISTICS (Feb. 29, 2019, 5:25 PM), <https://lawlinguistics.com/2019/02/26/corpora-and-the-second-amendment-changing-my-mind-about-a-change-of-mind/> (“After initially declaring that I wouldn’t be posting about the phrase *keep arms* because I had nothing interesting to say about it, and then declaring that upon further reflection I did have something interesting to say, I’ve realized after drafting a post discussing the phrase that I was right the first time.”).

92. Blackman & Phillips, *supra* note 74. Blackman and Phillips excluded the other 32 as either duplicates or quotations of the Second Amendment.

93. *Id.*

with the Court's assumption that those state constitutions that discussed "the people's right" to defend themselves or that declared "the people have a right" to bear arms for the defense of themselves "unambiguously" protected an individual rather than a collective right.<sup>94</sup> He argues that unless these clauses included additional language such as "each" or "every citizen," it is unclear whether they were meant to protect collective or individual action.<sup>95</sup> Searching for both *the people's right* and *the people have a right* in COFEA and COEME, Goldfarb concluded that of 105 relevant concordance lines, 63 (60%) were clearly discussing collective rights (e.g., "the right to alter the Constitution," "the right to set up a civil government"), 24 (22.8%) were "both collective and at least arguably distributive [individual]," one was ambiguous, and just 17 (16.2%) clearly protected an individual right.<sup>96</sup>

Goldfarb then performed a separate analysis on the Second Amendment's phrase *the right of the people* and came to similar conclusions. Of 118 relevant hits, he coded 75 (63.6%) as collective, 29 (24.6%) as collective and arguably individual, 7 (6%) as ambiguous, and only 7 (6%) as clearly individual.<sup>97</sup>

Goldfarb argues his research "lends weight to the argument that the right of self-defense protected by [some of] the state constitutional provisions . . . should be understood as a right of *collective* self-defense, and therefore as a right associated with service in a militia."<sup>98</sup> This would not only suggest that some lines that could otherwise be coded as uses of the carrying sense are actually examples of the specialized sense,<sup>99</sup> but also that the ultimate "military right" conclusion drawn by the *Heller* dissenters was correct. Of course, this finding would also be consistent with the insurrectionist theory of the Second Amendment.

---

94. Neal Goldfarb, *Corpora and the Second Amendment: "Bear Arms" (Part 1), Plus a Look at "The People"*, LAWNLINGUISTICS (Apr. 29, 2019, 2:19 PM), <https://lawlinguistics.com/2019/04/29/corpora-and-the-second-amendment-bear-arms-part-1-plus-a-look-at-the-people/>.

95. *Id.*

96. *Id.* Goldfarb excluded any concordance line referencing a right to "bear arms."

97. *Id.*

98. *Id.*

99. Since Goldfarb excluded these state constitutional amendments from his analysis, this point is only relevant for this Note's coding.

## V. METHODOLOGY

There are many linguistic claims in *Heller*, but this Note addresses just three: (A) whether the Second Amendment protects a “unitary right” to “keep and bear arms,” (B) whether at the time of the Founding the more natural meaning of *bear arms* was *carry weapons*, and (C) whether at the time of the Founding the idiomatic sense of *bear arms* was always followed by the preposition *against*.

*A. Testing Whether the Second Amendment Protects a “Unitary Right”*

After analyzing the Second Amendment’s prefatory clause and determining that the “people” referenced in the operative clause is limited to those serving in the state militia, Justice Stevens asserted that the Second Amendment’s protection of the right of the people to “keep and bear arms” protects a “single right” (or “a duty and a right”) “to have arms available and ready for military service, and to use them for military purposes when necessary.”<sup>100</sup>

This Note tested this claim by searching COFEA for instances of *to keep and bear arms* in the decades leading up to the passage of the Second Amendment. The theory was that if the corpus search returned many results of this precise phrase, it would be likely that the phrase was in fact a term of art—particularly if those results tended to be comprised of legal texts. If the search did not produce such results, it would be much less likely that the phrase was a term of art before the passage of the Second Amendment.

Likewise, if the corpus data showed that the phrase was used extensively after the writing of the Second Amendment, it would suggest that the Amendment gave birth to or established *keep and bear arms* as a term of art.

*B. Testing Whether “Bear Arms” Meant “Carry Weapons”*

As the research in Part III shows, corpus linguistics can shed a lot of light on the phrase *bear arms*. Most of this research has coded instances of *bear arms* using either a military sense versus nonmilitary

---

100. *District of Columbia v. Heller*, 554 U.S. 570, 651 (2008) (Stevens, J., dissenting).

sense framework or a collective sense versus individual sense framework. But this Note argues that neither of these frameworks is the best way to determine what *bear arms* meant in the context of the Second Amendment—at least not if we want to critique Justice Scalia’s analysis on its own terms.

That’s because both the military sense versus nonmilitary sense framework and the collective sense versus individual sense framework fail to directly address *Heller’s* central linguistic claim—that *bear arms* literally meant *carry weapons*.<sup>101</sup> Instead, these frameworks place a thumb on the scale in favor of a more limited militia right. Even if *bear arms* did exclusively mean *carry weapons* at the time of the Founding, it would presumably still be used overwhelmingly in military contexts. After all, the relevant texts were all written during or near the time of the Revolutionary War, and weapons are primarily used for combat.<sup>102</sup> For these same reasons, the finding that *bear arms* appeared more often in collective rather than individual contexts seems to prove little. Blackman and Phillips explained why we cannot simply place corpus results in “context” buckets as opposed to strict “sense” buckets: “If we search a corpus for ‘to read,’ we will find more instances of people reading a newspaper than reading a street sign, even though both instances draw on the same meaning of ‘to read.’”<sup>103</sup>

So the more relevant inquiry regarding the scope of the right to keep and bear arms, at least as the Supreme Court sees it, is how often Founding Era Americans used *bear arms* in a so-called specialized sense (i.e. to serve in the military or engage in combat) versus how often they used *bear arms* in the carrying sense (i.e. to literally wear, hold, or wield weapons)—not how often *bear arms* was used in collective or military contexts versus individual ones.

This Note used this specialized sense versus carrying sense framework even though Justice Scalia ultimately concluded that the Second

---

101. See, e.g., *Heller*, 554 U.S. at 584 (“At the time of the founding, as now, to ‘bear’ meant to ‘carry.’”); *id.* at 589 (“If ‘bear arms’ means, as we think, simply the carrying of arms. . .”).

102. Justice Scalia made this point about the smaller sample used in the Linguists’ Brief: “It is especially unremarkable that the phrase was often used in a military context in the federal legal sources (such as records of congressional debate) that have been the focus of petitioners’ inquiry. Those sources would have had little occasion to use it *except* in discussions about the standing army and the militia.” *Id.* at 587.

103. Blackman & Phillips, *supra* note 74.

Amendment “guarantee[s] the individual right to possess and carry weapons *in case of confrontation*.”<sup>104</sup> As Justice Stevens noted, “No party or *amicus* urged this interpretation; the Court appears to have fashioned it out of whole cloth.”<sup>105</sup> Because it is not obvious to me that the “in case of confrontation” language was necessary to the Court’s self-defense individual rights reading of the Second Amendment, I believed there was little to be gained by holding the Court to this more specific linguistic claim. After all, if citizens have an individual right to carry weapons, that right necessarily includes the right to carry weapons “in case[s] of confrontation”<sup>106</sup> or for the purposes of “offensive or defensive action.”<sup>107</sup>

We already have an idea of how this specialized sense versus carrying sense framework would work because Goldfarb used it in his Second Amendment corpus linguistics research. But this Note’s research is still valuable because it disagrees with Goldfarb’s coding in several respects.

For example, there are several uses of *bear arms* that Goldfarb automatically coded as “figurative”—e.g., *refuse to bear arms*, *exempted/excused/released from bearing arms*, *able to bear arms*, *capable of bearing arms*, *fit to bear arms*, *bear arms in defence of*, etc.—that I did not. While I interpreted many of these instances of *bear arms* to be using the figurative or specialized sense, the context seemed to suggest that others were invoking the carrying sense, and I coded them accordingly.

Goldfarb also decided to exclude from his analysis all proposed and final drafts of the Second Amendment and its variants. While Goldfarb raises valid concerns about the wisdom of assuming that state constitutions *unambiguously* protected an individual right, that is not the

104. *Heller*, 554 U.S. at 592 (emphasis added).

105. *Id.* at 646 (Stevens, J., dissenting). Justice Scalia may have limited himself in an effort to claim he was simply applying Justice Ginsburg’s (modern) definition of “carry” from *Muscarello* and make a jab at the dissent: “In *Muscarello* . . . Justice [Ginsburg] wrote that ‘[s]urely a most familiar meaning is, as the Constitution’s Second Amendment . . . indicate[s]: wear, bear, or carry [ . . . ] for the purpose . . . of being armed and ready for offensive or defensive action in a case of conflict with another person.’ We think that Justice [Ginsburg] accurately captured the natural meaning of ‘bear arms.’” *Id.* at 584 (majority opinion) (emphasis added) (internal quotations and citations omitted). Neal Goldfarb has commented extensively on the *Heller* Court’s faulty incorporation of Justice Ginsburg’s dissent in *Muscarello*. Goldfarb, *supra* note 94.

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

107. *Id.* at 584.



relevant question. All the specialized sense versus carrying sense framework cares about is whether these state Second Amendments employed *bear arms* in the specialized sense or the carrying sense. As such, I included and coded Second Amendment variants if they appeared in my random sample.

This Note also departed from past research's tendency to search only for the exact term *bear arms* because, like Blackman and Phillips and Goldfarb, I believed that a wider and more flexible search query—i.e., one that identified all instances of *arm* or *arms* within a certain range of any form of the verb *bear*—was necessary to capture other variations of the phrase that are just as relevant to determining the phrase's meaning. But while this Note's analysis expanded on past research by searching for all instances of *arm* or *arms* within six words of *bear* (as opposed to just searching for *bear arms* or for *arm* or *arms* within four words of *bear*) and by coding a larger sample than Blackman and Phillips, Goldfarb deserves credit for searching COEME in addition to COFEA and for coding *all* the concordance lines his searches returned. Still, this Note's methodological differences with past researchers constitutes a significant contribution to the literature on this topic.

### C. Testing Whether the Idiom “Bear Arms” Requires the Preposition “Against”

This Note also used corpus linguistics to test whether Justice Scalia was correct when he claimed that the phrase *bear arms* bore its figurative meaning only when followed by the preposition *against*. The hypothesis was simple: if a corpus search revealed instances of the idiom being used without *against*, it would undermine the majority's conclusion that the preposition was always required.

## VI. RESULTS

This Note's corpus data revealed that while both the majority and main dissenting opinions in *Heller* purported to rely on the original understanding of the Second Amendment, they each made erroneous historical linguistic claims. Because the Supreme Court only considered a limited number of sources before making broad generalizations about the historical meaning of *bear arms*, neither camp accurately

portrayed the complex and nuanced reality of how the phrase was used at the time the Second Amendment was ratified.

While several scholars have begun applying corpus linguistics to the debate over the original meaning of the Second Amendment, this Note's most novel contribution is its evidence that the Second Amendment protects both a right of the people to "keep arms" and a separate right to "bear arms." Furthermore, while the specialized sense of *bear arms* (i.e., serving in the military or engaging in collective armed conflict) appears to have been used significantly more often than the carrying sense of *bear arms*, the latter still appears to have been used more often than past research may have suggested. Finally, the data confirm past research suggesting that Justice Scalia was wrong when he asserted that the more "idiomatic" sense of *bear arms* bore this meaning only when followed by the preposition *against*.

A. *"Keep and Bear Arms" Was Likely Not a Legal Term of Art or "Unitary Right" at the Time of the Founding.*

After analyzing the Second Amendment's prefatory clause and determining that the "people" referenced in the operative clause is limited to those serving in the state militia, Justice Stevens asserted that the Second Amendment's protection of the right of the people to "keep and bear arms" protects a "single right" (or "a duty and a right") "to have arms available and ready for military service, and to use them for military purposes when necessary."<sup>108</sup> But corpus linguistics data suggest just the opposite.

A COFEA search for all instances in which any variant of *keep* (e.g., *kept*, *keeping*) appeared within six words of any variant of *bear* (e.g., *bore*, *bearing*) resulted in 105 hits. Of these, fully 80 were irrelevant because they discussed other senses of *keep* (e.g., "keep . . . as near the coast as possible"), *bear* (e.g., "bear good fruit"), or both (e.g., "I cannot bear to keep anything that is comfortable from you"). Another 19 were duplicates of the Second Amendment, its proposed and rejected drafts, or state equivalents (the originals were included).<sup>109</sup>

---

108. *Id.* at 651 (Stevens, J., dissenting).

109. Goldfarb's concluded that all the results from his search for *keep and bear arms* were from drafts and proposals related to the Second Amendment itself. Neal Goldfarb, *Corpora and*

Of the remaining six hits, only two could plausibly be interpreted as contemplating a “unitary right.”<sup>110</sup> One is Virginia’s 1788 proposal for the Second Amendment. The other is a newspaper article by Samuel Adams, in which he claimed that Massachusetts’ Declaration of Rights protects “a right to keep and bear arms for the common defence.”

But in actuality, the Massachusetts Declaration of Rights provides that, “[t]he people have a right to keep and *to* bear arms for the common defence.”<sup>111</sup> While one could place more weight on the singular article *a* in “a right,” I followed Justice Stevens’s lead and gave more weight to the additional “to” before “bear.”<sup>112</sup> In any case, since the article *the* in *the right of the people to keep and bear arms* is just as singular as the article *a* in *a right to keep and to bear arms*, saying *a* definitively describes a unitary right and therefore the Second Amendment enshrines a unitary right would seem to assume the conclusion.

Three of the remaining six hits supported the idea that *to keep and bear arms* contemplates two distinct rights. Two hits were rejected draft versions of the Second Amendment, which protected the right “to keep and bear arms” but immediately exempted those “religiously scrupulous of bearing arms” from doing so—in other words, religious objectors were not exempt from both bearing *and* keeping arms, just from bearing arms. The third hit was Tennessee’s 1796 Constitution, which reads: “That the freemen of this State have a right to Keep and *to* bear Arms for their common defence.”<sup>113</sup> For reasons just discussed, this extra *to* suggests that the phrase protected two separate rights.

Simply put, the frequency data and concordance line analysis showed that, as Justice Scalia predicted,<sup>114</sup> *keep and bear arms* as a complete phrase was not a common phrase at the time of the Founding, let alone a legal term of art for a “unitary right.”

---

*the Second Amendment, “Keep and Bear Arms” (Part 1) (updated)*, LAWNLINGUISTICS (July 29, 2019, 8:18 PM) <https://lawlinguistics.com/2019/07/29/corpora-and-the-second-amendment-keep-and-bear-arms-part-1/>.

110. *Heller*, 554 U.S. at 646.

111. MASS. CONST., art. 17 (emphasis added).

112. See *Heller*, 554 U.S. at 646 (Stevens, J., dissenting) (“[T]he Court’s discussion of these words treats them as two ‘phrases’—as if they read ‘to keep’ and ‘to bear.’”).

113. TENN. CONST. § 26 (1796) (emphasis added).

114. *Heller*, 554 U.S. at 591 (majority opinion).

*B. “Bear Arms” Was Used More Often in the Specialized Sense than the Literal Carrying Sense at the Time of the Founding*

While past corpus linguistics research has shown that *bear arms* was used primarily in “military” or “collective” contexts, this Note makes the more nuanced finding that *bear arms* was used more often in the “figurative” specialized sense than the “literal” carrying sense at the time of the Founding.

A COFEA search for all the instances in which any variant of *bear* was found within six words<sup>115</sup> of *arm* or *arms* resulted in 727 results. To get a simple random sample, 329 concordance lines were selected at random for analysis.<sup>116</sup> Of these, 105 were either duplicates or irrelevant to the present inquiry (e.g., “we bore him in our arms”). Of the remaining 224 hits, the specialized sense of *bear arms* occurred an impressive 147 times, or in 65.6% of the (remaining) relevant sample. The carrying sense, by contrast, occurred a respectable 47 times, or in 21% of the relevant sample. I judged the remaining 30 hits (13.4% of the sample) too ambiguous to place in one camp or the other.

As predicted, many instances of *bear arms* in the literal carrying sense still occurred in military contexts. For example, in a 1778 letter to George Washington, Alexander Hamilton proposed a regulation to disarm those officers and supporting staffers of the Continental Army that did not actually use their arms in combat:

Great quantities of arms and ammunition have been destroyed, *by being in the possession of men who do not use them in time of action*. To prevent this, for the future, no arms, accoutrements, or ammunition, is to be delivered to those under the following description, viz: General and staff officers, waiters, waggoners, camp colour men, *and all those who do not bear arms in time of action*.<sup>117</sup>

---

115. This is the widest possible search range on COFEA, and more than enough to capture relevant iterations of *bear arms*.

116. This sample is large enough to achieve a 95% confidence level with a margin of error of  $\pm 4\%$ .

117. Letter from Alexander Hamilton to George Washington (before Jan. 29, 1778), NAT'L ARCHIVES: FOUNDERS ONLINE, <https://founders.archives.gov/documents/Hamilton/01-01-02-0353> (last visited Oct. 24, 2019) (emphasis added).

This was not an isolated instance; many sources discussed those “able to bear arms” as a subset of the militia, indicating that not all those who served in the militia were considered to be “bearing arms”:

- I prevailed upon the Baron to permit their return, both because several of the boys had been and *might be enlisted for the war, and serve very well for music till they grow big enough to bear arms*; and because we wanted them for the purpose of guarding stores here, in the room of better men who might be sent to the army.<sup>118</sup>
- [I]t is strongly and earnestly enjoined, upon the commanding officers of corps to make *all their men who are able to bear arms* (except the necessary guards) march in the ranks . . . .<sup>119</sup>

Other notable examples of the carrying sense being used in military contexts are those letters, statutes, and general orders that spoke of bearing arms as a subset of militia duties:

- They received from the enemy bounty money, pay, clothing and subsistence, *bore arms, did guard duty, and often were in action against us*.<sup>120</sup>
- That in case any person liable to *appear and bear arms* at muster as aforesaid, shall neglect or refuse to appear *completely armed and furnished* as aforesaid . . . shall forfeit and pay a sum not exceeding twenty shillings . . . .<sup>121</sup>

---

118. Letter from William Davies to Thomas Jefferson (Mar. 21, 1781), NAT'L ARCHIVES: FOUNDERS ONLINE, <https://founders.archives.gov/documents/Jefferson/01-05-02-0260> (last visited Oct. 24, 2019) (emphasis added).

119. Letter from George Washington on General Orders (Aug. 23, 1777), NAT'L ARCHIVES: FOUNDERS ONLINE, <https://founders.archives.gov/documents/Washington/03-11-02-0047> (last visited Oct. 24, 2019) (emphasis added).

120. Letter from Thomas Jefferson to Philip Turpin (July 29, 1783), NAT'L ARCHIVES: FOUNDERS ONLINE, <https://founders.archives.gov/documents/Jefferson/01-06-02-0260> (last visited Oct. 24, 2019) (emphasis added).

121. Georgia Acts and Resolutions 1735-1786 (emphasis added).

- [A]ll male persons from sixteen years of age to sixty, to train . . . shall bear arms, *and duly attend all musters, and military exercises*, of the respective troops and companies where they are listed or belong . . . .<sup>122</sup>

It is possible but awkward to say that men must show up for musters *and* serve in the militia—after all, wouldn’t showing up for musters and military exercises be part of “serving in the militia”? And it seems even more redundant to say that men should serve in the militia *and* participate in the militia’s activities. But it is eminently reasonable to clarify that men should appear with their weapons to participate in military exercises, or carry weapons while participating in military exercises. After all, Georgia actually fined those who reported for duty without being “completely armed and furnished.”<sup>123</sup>

Goldfarb argues that:

Although militia service involved physically carrying weapons, that wasn’t all that it involved. There were other obligations as well, such as attending musters; providing one’s own firearm, powder, and ammunition; and most importantly, fighting, as needed, in military actions. It seems more likely to me that when *bear arms* was used in connection with the duty to bear arms, it was intended and understood to denote the whole constellation of activities comprising bearing arms, and not just the action of carrying weapons.<sup>124</sup>

But this hardly resolves the redundancy problem highlighted above—if *bear arms* denoted “the whole constellation” of the militia’s activities, why was it necessary to say that men should bear arms *and* participate in those other activities? One possible answer is that these

---

122. New Hampshire Temporary Law, Acts and Laws 1759-1776 (emphasis added).

123. See *supra* note 121 and accompanying text.

124. Neal Goldfarb, *Corpora and the Second Amendment, “Bear Arms” (Part 3) [UPDATED]*, LAWNLINGUISTICS (July 10, 2019, 3:38 PM), <https://lawnlinguistics.com/2019/07/10/corpora-and-the-second-amendment-bear-arms-part-3/>.

sources were simply using “and” in the exemplary rather than the conjunctive sense (e.g., “John should be a good boy and do his homework.”). But that cannot be the whole answer because there are sources explicitly distinguishing between bearing arms and other militia activities.<sup>125</sup>

Unsurprisingly, the literal carrying sense of *bear arms* was also used in individual and civilian contexts:

- A soldier . . . sold an old rusty musket to a countryman for three dollars, who brought vegetables to market. This could be no crime in the market-man, who had an undoubted right to purchase, and bear arms.<sup>126</sup>
- I fervently hoped that no new exigence would occur, compelling me to use the arms that I bore in my own defence.<sup>127</sup>

Of course, by definition, examples of the specialized sense of *bear arms* were limited to instances of military service or combat. They were also almost exclusively limited to “collective” contexts.<sup>128</sup>

In sum, this preliminary corpus data raises doubts about whether one can dismiss the *Heller* Court’s adoption of the literal reading of *bear arms* (even if it ultimately only makes up 21% of this Note’s sample). As discussed in Part VI, ideally additional corpus linguistics research and other tools of constitutional interpretation will be used to

125. See, e.g., Letter from Thomas Jefferson to Philip Turpin (July 29, 1783), NAT’L ARCHIVES: FOUNDERS ONLINE, <https://founders.archives.gov/documents/Jefferson/01-06-02-0260> (last visited Oct. 24, 2019) (“They received from the enemy bounty money, pay, clothing and subsistence, *bore arms, did guard duty, and often were in action against us.*”) (emphasis added).

126. JOHN TRUMBALL, M’FINGAL: A MODERN EPIC POEM, IN FOUR CANTOS 114 n.37 (1839). Relatedly, this also suggests the “right to bear arms” means the “right to carry weapons.”

127. CHARLES BROCKDEN BROWN, EDGAR HUNTLY; OR, MEMOIRS OF A SLEEPWALKER 180 (1799).

128. *But see* Letter to George Washington from Benjamin Neilly (Apr. 22, 1781), NAT’L ARCHIVES: FOUNDERS ONLINE, <https://founders.archives.gov/?q=%20Author%3A%22Neilly%2C%20Benjamin%22&s=1111311121&r=1> (last visited Oct. 25, 2019) (“I therefore find myself under the disagreeable Necessity of applying to your Excellency in support of an Injured and traduced reputation; and while I have the Honor of bearing Arms *in defence of my own Rights*, and that of my fellow Creatures, I hope I shall not be allowed to remain long under the imputation of Arrogant and wanton Columny. . . .”) (emphasis added).

shed further light on the original understanding of *the right to keep and bear arms*.

*C. The Specialized Sense of “Bear Arms” Did Not Require the Preposition “Against”*

Contrary to Justice Scalia’s assertion that *bear arms* “*unequivocally bore [its] idiomatic meaning only when followed by the preposition ‘against,’*”<sup>129</sup> only 36 hits, or 24.5% of all 147 specialized sense hits in the sample, used the preposition *against*. So, not only did this “idiom” appear without the preposition *against*, but the specialized sense of *bear arms* was three times more likely to be recorded without it. While Justice Scalia’s other claims and ultimate conclusion regarding the Second Amendment may still be correct (or at least subject to further research and debate), it is emphatically not true that the preposition *against* was necessary to convey the specialized sense of *bear arms* at the time of the Founding.

## VII. CAVEATS AND FUTURE RESEARCH

The research laid out in Part V supports the conclusion that by far the most commonly recorded use of *bear arms* at the time of the Founding was the specialized sense of serving in the military or engaging in combat. This comports with Goldfarb’s research using the same framework and is arguably consistent with the conclusions of other scholars suggesting that the Second Amendment’s guarantee of a right to “bear arms” is limited to military service. But this Note’s research also reveals that over one-fifth of recorded uses of *bear arms* in COFEA employed the phrase in the carrying sense. While the literal carrying sense should still be recognized as a minority sense, it is not an all-but-nonexistent sense like Goldfarb and others suggest. In fact, the percentage of *bear arms* uses that invoke the literal sense may actually be larger.<sup>130</sup>

All these findings should be taken together with the following caveats:

---

129. *District of Columbia v. Heller*, 554 U.S. 570, 586 (2008).

130. As I will explain, it is also possible (but less likely) that the number might be smaller.



### A. Methodological Issues

#### 1. Coding religious objectors

One potential problem with this Note's coding is that many of the references to *bear arms*—22.8% of the relevant sample—were used in discussions about religious groups (Quakers, Jews, and early Christians) that were morally opposed to “bearing arms.” In over 75% of these instances, *bear arms* still seemed to clearly refer to the specialized sense, and these lines were coded as such. However, in nearly 20% of the concordance lines in this subset, the phrase seemed to refer to religious opposition to carrying weapons *in addition* to mustering or engaging in military activities. These instances, some of which are provided below, were coded as carrying sense iterations:

- Do you maintain a faithful Testimony against Oaths, an hireling Ministry, *bearing Arms, Training, or Military Services*, being concerned in any fraudulent or clandestine Trade[?]<sup>131</sup>
- Whereas there are in divers Parts of this Province several of the People called Quakers . . . and from a religious Principle, are conscientiously [sic] scrupulous of bearing Arms, *or appearing or answering to their Names in Muster Fields. . .*<sup>132</sup>
- [T]he Jews, being tied up by the religion, laws, and constitutions of their country, not to bear arms, travel, or so much as provide themselves necessaries for life, upon the day of their sabbath, are *thereby rendered incapable of attending the duties and services of the war. . .*<sup>133</sup>

---

131. PHILADELPHIA YEARLY MEETING OF THE RELIGIOUS SOCIETY OF FRIENDS, RULES OF DISCIPLINE AND CHRISTIAN ADVICES OF THE YEARLY MEETING OF FRIENDS FOR PENNSYLVANIA AND NEW JERSEY, FIRST HELD AT BURLINGTON IN THE YEAR 1681, AND FROM 1685 TO 1760, INCLUSIVE, ALTERNATELY IN BURLINGTON AND PHILADELPHIA: AND SINCE AT PHILADELPHIA. : ALPHABETICALLY DIGESTED AND PRINTED BY DIRECTION OF THE SAID MEETING 110 (1797) (emphasis added).

132. Laws of North Carolina (1770) (emphasis added).

133. THOMAS BRADSHAW, THE WHOLE GENUINE AND COMPLETE WORKS OF FLAVIUS JOSEPHUS, THE LEADER AND AUTHENTIC JEWISH HISTORIAN AND CELEBRATED WARRIOR (1792) (emphasis added).

- Celsus . . . had charged the christians with refusing to bear arms, *and* to enter into military employment.<sup>134</sup>

In short, depending on what historical research reveals about the relevant beliefs and practices of Quakers, Jews, and early Christians, the composition of the sample might change substantially. True, I only coded two concordance lines respecting religious objectors as “unclear,” so tipping both of these to the carrying sense column would only increase that sense’s share of the sample to 21.9%. But if historical research demonstrated that all *bear arms* references involving religious objectors should be coded as carrying instances, the relevant sample’s share of specialized to carrying would be a much closer 48.2% to 39.3%.<sup>135</sup>

The *Heller* dissenters argued, not unreasonably, that religious exemptions supported a specialized sense reading of *bear arms*.<sup>136</sup> But as the *Heller* majority countered, surely these exemptions were not meant “to exempt from military service those who objected to going to war but had no scruples about personal gunfights.”<sup>137</sup>

## 2. Coding those capable, able, and fit to bear arms

This Note also struggled with the question of what exactly was meant by phrases such as *able to bear arms*, *capable of bearing arms*, and *big* or *fit enough to bear arms*. These phrases, which can plausibly

134. ANTHONY BENEZET, SERIOUS CONSIDERATIONS ON SEVERAL IMPORTANT SUBJECTS; VIZ. ON WAR AND ITS INCONSISTENCY WITH THE GOSPEL. OBSERVATIONS ON SLAVERY. AND REMARKS ON THE NATURE AND BAD EFFECTS OF SPIRITUOUS LIQUORS (1778) (emphasis added). Admittedly, it is possible that the use of *and* in this line was not conjunctive.

135. Admittedly, this is extremely unlikely—not just because it seems more likely that religious objectors were opposed to war rather than the carrying of weapons, but because even if these objectors’ beliefs did include an aversion to carrying weapons, believers and nonbelievers alike could still have been referring *only* to the objectors’ opposition to military service. Still, this is an interesting question that could flip a non-trivial number of less clear-cut specialized sense uses to carrying sense uses (and vice versa).

136. *District of Columbia v. Heller*, 554 U.S. 570, 660–61 (2008) (Stevens, J., dissenting). Goldfarb also argues that religious exemptions point toward a non-literal reading of *bear arms*. Goldfarb, *supra* note 124.

137. *Heller*, 554 U.S. at 590. I acknowledge that this might be one instance in which it matters whether *bear arms* is interpreted to mean *carry weapons in case of confrontation* rather than *carry weapons*.

refer either to individuals' ability or eligibility to serve in the military or their ability to carry (and possibly handle) weapons, occurred 51 times, making up 22.8% of the entire relevant *bear arms* sample. Of those, 20 hits (39.2%) were coded as specialized sense uses, 8 hits (15.7%) were coded as carrying sense uses, and a significant 23 hits (45.1%) were deemed too ambiguous to code.

As in the case of the religious objectors, there were some examples that seemed to invoke the specialized (military service) sense:

- The established rule of computing the number of men, capable of bearing arms in any nation, is by taking a fifth part of the whole people.<sup>138</sup>
- What is the number of men in America able to bear arms, *or of disciplined militia?*<sup>139</sup>

In other instances, the texts describing those able/capable/fit to bear arms seemed to use the carrying sense. I made this inference whenever the specialized sense would have created a redundancy (such as when texts referred to those able to bear arms as a subset of a military unit), or when texts went on to emphasize that those unable to bear arms were *also* unable to endure the rigors of military service:

- [I]t is strongly and earnestly enjoined, upon the commanding officers of corps to make *all their men who are able to bear arms* (except the necessary guards) march in the ranks. . . .<sup>140</sup>
- Next to these, the body of warriors, which comprehends all that are able to bear arms, hold their rank.<sup>141</sup>

---

138. ALEXANDER HAMILTON, *THE FARMER REFUTED: OR, A MORE IMPARTIAL AND COMPREHENSIVE VIEW OF THE DISPUTE BETWEEN GREAT-BRITAIN AND THE COLONIES, INTENDED AS A FURTHER VINDICATION OF THE CONGRESS* 72 (1775).

139. *THE HISTORY OF THE WAR IN AMERICA, BETWEEN GREAT BRITAIN AND HER COLONIES* (1779) (emphasis added).

140. General Orders (Aug. 23, 1777), NAT'L ARCHIVES: FOUNDERS ONLINE, <https://founders.archives.gov/documents/Washington/03-11-02-0047> (last visited Oct. 25, 2019) (emphasis added).

141. JONATHAN CARVER, *TRAVELS THROUGH THE INTERIOR PARTS OF NORTH-AMERICA, IN THE YEARS 1766, 1767, AND 1768* 260 (1778).

- Neither Negroes (being Slaves) old Men, or Boys, *unable to bear Arms, & to endure the fatigues of the Campaign*, nor Persons labouring under *any bodily infirmity whatsoever* are to be allowed to pass Muster, of which you are to take due Notice.<sup>142</sup>
- [T]o protect, or to avenge women, orphans, and ecclesiastics, who could not bear arms in their own defence . . . .<sup>143</sup>

Some may disagree with these categorizations, as Neal Goldfarb has,<sup>144</sup> but it is difficult to code phrases like *able/capable/fit to bear arms* because they may very well represent a separate, second specialized sense of *bear arms* (or what the Court might call a separate *bear arms* idiom)—a shorthand for people of a certain age and physicality.<sup>145</sup> If that is true, it is somewhat nonsensical to try to categorize *able/capable/fit to bear arms* phrases within this Note’s specialized sense versus carrying sense framework (at least if we limit the specialized sense to mean only those serving in the military or waging war). In the end, I deemed many of these hits (45.1%) too ambiguous to code. More research is needed to determine whether these phrases tell us anything at all about the frequency with which Founding Era Americans used *bear arms* in the literal sense.

---

142. Commission to Robert Breck (Jan. 24, 1776), NAT’L ARCHIVES: FOUNDERS ONLINE, <https://founders.archives.gov/documents/Washington/03-03-02-0126> (last visited Oct. 25, 2019).

143. WILLIAM ROBERTSON, THE HISTORY OF THE REIGN OF CHARLES THE FIFTH, EMPEROR OF GERMANY 60 (1771) (emphasis added).

144. See Goldfarb, *supra* note 124 (“[T]he relevance of the military context is that it makes it likely that *bear arms* was used (and understood) to convey the idiomatic military meaning that the majority in *Heller* rejected. The salient issue in these examples was the overall ability of people to perform military service, not merely their ability to carry weapons (for whatever purpose). And that would presumably have been reflected in the meaning that the authors meant to convey and that readers understood.”).

145. Goldfarb argues this would also point to an idiomatic military sense of *bear arms*: “Whereas the duty to serve in the militia applied only to those above a given age, I haven’t seen any indication that there were any minimum age requirements for being allowed to carry weapons. On the contrary, it appears that children learned to use firearms at a young age, and the fact that males were required to do militia service starting in their teenage years suggests that by that stage in life, they already knew how to use weapons. Unless I’m mistaken about the history, therefore, *bear arms* as used in [“big enough to bear arms” or “of age to bear arms”] meant ‘perform military service’ or ‘act as a warrior.’” *Id.*

Once again, this determination could change the results of Part V rather dramatically. If it were determined that all instances of *able/capable/fit to bear arms* currently coded as ambiguous would be better assigned to the carrying sense category, the carrying sense use of *bear arms* would increase its share of the relevant sample from 21% to 31.3%. And if it were determined that all instances of *able/capable/fit to bear arms* currently coded as examples of the specialized sense were also better assigned to the carrying sense category, the specialized sense to carrying sense breakdown of the original relevant sample would go from a decisive 65.6% to 21% to a muddled 56.7% to 40.2%.<sup>146</sup>

### 3. *The specialized sense versus carrying sense framework generally, and “keep arms” as a clue*

This last observation segues into the most important caveat of all—the proposed specialized sense versus carrying sense framework, while perhaps better suited to testing the *Heller* Court’s claims than the military sense versus nonmilitary sense framework or the collective sense versus individual sense framework, may still be incomplete and in need of refinement. It is not entirely clear that the specialized sense of *bear arms* is all that separated from the carrying sense of *bear arms*.<sup>147</sup> For example, in most instances, when Founding Era Americans served in the military or went to war, they not only “bore arms” in the sense that they served in the military or waged war—they also “bore arms” in the sense that they carried weapons. So, in theory, even the most “literal” use of *bear arms*—not just the *able/capable/fit to bear arms* use—could

---

146. It is more likely that all instances of *able/capable/fit to bear arms* were used in the carrying sense than it is that all instances of religious objectors refusing to *bear arms* were used in the carrying sense. Many of those *able/capable/fit to bear arms* concordance lines ultimately categorized as examples of the specialized or carrying senses were not obviously at home in those buckets. Of course, this also means that the specialized sense to carrying sense breakdown might be even more starkly in favor of the specialized sense (79.5% to 17.4% if all *able/capable/fit to bear arms* uses currently categorized as examples of “carrying” or “unclear” were recategorized as “specialized”).

147. See Goldfarb, *supra* note 85 (“Earlier in this post, when talking about the sense of *bear arms* as meaning ‘carry weapons,’ I used a hedge when I referred to that sense as ‘*what would generally be thought of as its literal sense.*’ I did that partly because the distinction between ‘literal’ and ‘figurative’ language is more complicated than you might think, but more importantly because the distinction is especially problematic in the case of *bear arms*.”).

be indistinguishable from the so-called idiomatic (or rather “less literal”) use of *bear arms*. At least, there may not be enough context for modern-day linguists to determine *exactly* which sense was being used in military-related documents.

If this is true, the literal carrying of weapons may have been frequently—perhaps even overwhelmingly—lost as a subset of the specialized or “idiomatic” sense of *bear arms*. This idea is consistent with Justice Scalia’s theory that the prefatory clause of the Second Amendment simply announced the main impetus or purpose behind the provision; that is, the clause merely expressed the most prototypical exercise of the broader individual right to own and carry weapons.<sup>148</sup> In short, the right guaranteed by the Second Amendment may actually be more expansive (i.e. individual) than the research in Part V suggests.

Because the carrying sense of *bear arms* was still common at the time of the Founding (and the aforementioned caveats suggest that it may have been even more common than this Note’s principal findings suggest), the Court may need to continue to rely on other textual and historical tools (such as the grammar cannon,<sup>149</sup> states’ Second Amendment equivalents, early American firearm regulations and practices, the Second Amendment’s connection to the English Bill of Rights, etc.) to determine the original understanding and current legal scope of the Second Amendment. Corpus linguistics data are most reliable when they are harmonized with other tools of interpretation.<sup>150</sup>

In the case of the Second Amendment, a syntactic analysis confirmed by additional corpus linguistics research could do much to resolve the question in favor of an individual rights interpretation. Specifically, since it is clear that *to keep and bear arms* was not a term of art, much could be gleaned from a corpus linguistics analysis on the right to “keep arms.” No one has yet suggested that *keep arms* has (or

148. *District of Columbia v. Heller*, 554 U.S. 570, 577–78 (2008).

149. See ANTONIN SCALIA & BRYAN A. GARNER, *READING LAW: THE INTERPRETATION OF LEGAL TEXTS* 140 (2012) (“Words are to be given the meaning that proper grammar and usage would assign them.”).

150. Professor Larry Solum has argued that we may only be “reasonably confident that we have recovered the original public meaning of the constitutional text” through a sort of “triangulation” of corpus linguistics, immersion in the conceptual and linguistic world of the members of the Founding Era, and a study of the constitutional record. Lawrence B. Solum, *Triangulating Public Meaning: Corpus Linguistics, Immersion, and the Constitutional Record*, 2017 BYU L. REV. 1621, 1681–82.

had) an “idiomatic meaning” quite like *bear arms* did and does—although Neal Goldfarb has made some interesting findings regarding how *keep* in general may have idiomaticity.<sup>151</sup> For now, however, it seems likely that *keeping arms* simply described the private possession (and possibly maintenance) of weapons. Confirmation that *keep arms* was used more “literally” in the Founding Era would strongly imply that *bear arms* was also meant to be taken more “literally” (i.e. in the carrying sense) in the context of the Second Amendment, where it appears in conjunction with *keep*. As Justice Scalia noted, the phrase *keep and bear arms* would be extremely incoherent if *keep arms* were interpreted literally and *bear arms* were interpreted figuratively: “The word ‘Arms’ would have two different meanings at once: ‘weapons’ (as the object of ‘keep’) and (as the object of ‘bear’) one-half of an idiom. It would be rather like saying ‘He filled and kicked the bucket’ to mean ‘He filled the bucket and died.’ Grotesque.”<sup>152</sup> It is hard to imagine this “one-half of an idiom” reading surviving if *keep arms* were confirmed to be purely literal.<sup>153</sup>

#### 4. *Limitations of COFEA*

The database itself also has limitations. First, it would be beneficial to confirm this Note’s research with another corpus, such as COEME. As previously noted, Neal Goldfarb has already performed such a search. However, that search only looked for iterations of *arms* within four words of any form of the word *bear*—and technology currently allows us to search up to six words on either side of a word. He also eliminated any concordance lines with language that tracked too

---

151. Neal Goldfarb, *Corpora and the Second Amendment: “Keep” (Part 2)*, LAWNLINGUISTICS (Oct. 21, 2018), <https://lawlinguistics.com/2018/10/21/corpora-and-the-second-amendment-keep-part-2/>.

152. *Heller*, 554 U.S. at 587.

153. For an argument that it is possible to have *arms* be idiomatic for *bear arms* but literal for *keep arms* in *to keep and bear arms*, see Goldfarb, *supra* note 109; Neal Goldfarb, *Corpora and the Second Amendment: “Keep and Bear Arms” (Part 2)*, LAWNLINGUISTICS (Aug. 23, 2019, 10:01 PM) <https://lawlinguistics.com/2019/08/23/corpora-and-the-second-amendment-part-2/> (“The uses of bear arms that I’ve discussed provide evidence supporting the conclusion that the phrase could have been used idiomatically in the Second Amendment, even though that would entail that arms mean two things at once.”).

closely to the Second Amendment. For reasons given earlier, I disagree with that decision.

Second, COFEA is itself a moving target—you cannot rely on your data for too long. COFEA is constantly growing as BYU adds documents in an effort to make the corpus more representative. This means that the searches I did when I started this Note at the end of 2018 will not be as comprehensive as the searches I can do when this Note is published. COFEA is also imperfect because it largely represents the language of elite white males,<sup>154</sup> and lacks sources from Founding Era newspapers and the state ratification debates.<sup>155</sup>

### 5. *Author bias*

The last caveat I would add is that this Note’s concordance line coding was obviously the product of my own intuition and biases. Ideally, coding decisions are reviewed by multiple people and decisions are subject to quality control.<sup>156</sup> Again, it is precisely the replicability and falsifiability of corpus linguistics that makes it such a refreshingly transparent enterprise.

## B. *Areas for Further Research*

### 1. *The right of the people*

There is also much to be gained from supplemental corpus linguistics research on the phrase *the right of the people*,<sup>157</sup> as the main *Heller* opinions disagreed on whether the phrase was used more often to refer to individual rights or collective rights.<sup>158</sup>

154. See Lee & Phillips, *supra* note 34, at 294–95. On the other hand, it was essentially all elite white males who were writing and ratifying the Second Amendment.

155. *Id.* at 295. The lack of newspapers, at least, is a “less serious” problem because founding-era newspapers tended to be “a collection of articles, letters, essays, etc., rather than news articles written in a distinctive style.” *Id.*

156. See, e.g., Stephanie H. Barclay et al., *Original Meaning and the Establishment Clause: A Corpus Linguistics Analysis*, 61 ARIZ. L. REV. 505, 537 (2019).

157. Of course, if the specific phrase *right of the people* is determined not to be a term of art, a broader search (such as searching for all instances in which *people* comes within six words of *right* or *rights*) would be a more thorough inquiry.

158. *District of Columbia v. Heller*, 554 U.S. 570, 579–81 (2008).



Goldfarb gives us reason to believe that the *right of the people* was most frequently used in conjunction with rights exercised as a group.<sup>159</sup> He argues that *the people* referred to in the Second Amendment should therefore be read as limited to those that were of the militia, not the people generally.<sup>160</sup> This would contrast sharply with our current understanding of *the people* in the Fourth Amendment, which has been interpreted to protect individual rights.<sup>161</sup>

Professor Akhil Reed Amar also argues that *the people* in the Second Amendment should be synonymous with *militia*, focusing on an early draft of the Second Amendment's reference to "a well regulated militia, composed of the body of the people."<sup>162</sup> But saying the militia

---

159. See Goldfarb, *supra* note 91.

160. Neal Goldfarb, *Corpora and the Second Amendment, "The Right (of the People) to . . . Bear Arms"*, LAWNLINGUISTICS (July 16, 2019, 2:54PM), <https://lawlinguistics.com/2019/07/16/corpora-and-the-second-amendment-the-right-of-the-people-to-bear-arms/>.

161. *But see* Amar, *supra* note 14 ("The rest of the Bill of Rights confirms this communitarian reading. The core of the First Amendment's assembly clause, which textually abuts the Second Amendment, is the right of 'the people'—in essence, voters—to 'assemble' in constitutional conventions and other political conclaves. So, too, the core rights retained and reserved to 'the people' in the Ninth and Tenth Amendments were rights of the people collectively to govern themselves democratically. The Fourth Amendment is trickier: 'The right of the people to be secure in their persons, houses, papers, and effects against unreasonable searches and seizures, shall not be violated.' Here, the collective 'people' wording is paired with more individualistic language of 'persons.' And these words obviously focus on the private domain, protecting individuals in their private homes more than in the public square. Why, then, did the Fourth use the words 'the people' at all? Probably to highlight the role that jurors—acting collectively and representing the electorate—would play in deciding which searches were reasonable and how much to punish government officials who searched or seized improperly. An early draft of James Madison's amendment protecting jury rights helps make this linkage obvious and also resonates with the language of the Second Amendment: '[T]he trial by jury, as one of the best securities to the rights of the people, ought to remain inviolate.' Note the obvious echoes here—'security' (Second Amendment), 'secure' (Fourth Amendment), and 'securities' (draft amendment); 'shall not be infringed,' 'shall not be violated,' and 'ought to remain inviolate'; and, of course, 'the right of the people' in all three places.").

162. See Akhil Reed Amar, Heller, HLR, and *Holistic Legal Reasoning*, 146 HARV. L. REV. 145, 166 (2008) ("[T]he otherwise stilted syntax of the Amendment, with its reference to the 'militia' in the opening and the 'people' in the closing, makes the most sense and becomes the least stilted when we read these two key nouns, 'militia' and 'people,' as synonyms. Here is the key linkage between the Amendment's two parts. In eighteenth-century republican ideology, the (general) militia *were* the people. Indeed, an earlier version of the Amendment made this implicit syntactical equation textually explicit by referring to 'a well regulated militia, composed of the body of the people.' Although this extra verbiage clarified the Amendment's substance, it clunked up the style of an already grammatically complicated sentence and eventually got dropped. Even so, the equation of the militia with the people is implicit in the very syntax and flow of the final Amendment as a whole when read against its background of eighteenth century republican ideology.").

is composed of “the body *of* the people” seems to suggest that the militia is a subset or part of “the people,” not synonymous with “the people.” In other words, the Second Amendment could simply be explaining that since the militia (a subset of the people) is necessary to the security of a free state, the right of the people (more generally) to have and carry weapons shall not be infringed.

If research shows that *the people* of the Second Amendment are the same as *the people* in the Fourth Amendment, then it seems much more likely that the Second Amendment protects an individual right to own and carry weapons, just as the Fourth Amendment protects an individual right to be free of unreasonable searches and seizures. Of course, it is theoretically possible to protect an individual right to serve in the militia, but it is unclear if this would have been considered a preexisting, negative, natural right at the time of the Founding, let alone one deemed worthy of inclusion in the Bill of Rights.

## 2. *Keep arms*

As noted in Part V, further analysis on the phrase *keep arms* could provide insight into which sense of *bear arms* the Second Amendment employs. If *keep arms* is confirmed to be literal, it becomes much more likely that *bear arms* was used literally as well.

### C. *The Limitations of Corpus Linguistics*

It is important to remember that corpus linguistics is just one tool of constitutional interpretation. Professor Larry Solum has argued that corpus linguistics should be “triangulated” with an immersion in the texts of the relevant time period and community, as well as a deep understanding of the constitutional record.<sup>163</sup> This seems especially prudent in the *Heller* debate because Justice Scalia relied on many important historical claims that corpus linguistics can do very little to confirm or deny. If, for example, we accept that the Second Amendment is simply the more expansive offspring of the English Bill of Rights,<sup>164</sup> our frequency data and concordance line analysis should arguably carry less weight in the calculus.

---

163. Solum, *supra* note 150, at 1681–82.

164. *District of Columbia v. Heller*, 554 U.S. 570, 592–95 (2008).

## VIII. CONCLUSION

Much more corpus linguistics research can and should be done to help shed light on *Heller's* linguistic claims, just as more historical research can and should be done to shed light on *Heller's* historical claims.

For now, we can have greater confidence that (1) the Second Amendment protects two distinct rights; (2) at the time of the Founding, the literal “carrying” sense of *bear arms* was somewhat common but not overwhelmingly so; and (3) that at the time of the Founding the more “idiomatic” or specialized sense of *bear arms* did not require the preposition *against*. Of course, these findings represent something of a mixed bag for both those who argue that the Second Amendment protects an individual right and those who argue that it protects the more limited right to bear arms in connection with a state militia.

But it is better to have a mixed bag than a bag of wish fulfillment. If we are serious about originalism and the original ordinary meaning inquiry in particular, we must be willing to consider and grapple with all of the available data. In this day and age, that means engaging with the data made available through corpus linguistics.

*Josh Jones*

## APPENDIX 1

**Possible Percentages\* for the “Literal Sense” of “Bear Arms”**

	Initial Raw No. of Hits	Initial % of Relevant Sample	% If All Unclear “Religious” Literal	% If All “Religious” Literal	% If All Unclear “Able” Literal	% If All “Able” Literal
Sample Size	329	--	--	--	--	--
Total Relevant	224	--	--	--	--	--
Figurative	147	65.6%	65.6%	48.2%	65.6%	56.7%
Literal	47	21.0%	21.9%	39.3%	31.3%	40.2%
Unclear	30	13.4%	12.5%	12.5%	3.1%	3.1%
“Religious” <sup>o</sup>	51	22.8%	--	--	--	--
“Able” <sup>ç</sup>	51	22.8%	--	--	--	--
Duplicates	43	--	--	--	--	--
Irrelevant	62	--	--	--	--	--

\*This sample size (329 total hits) is large enough to achieve a 95% confidence interval with a margin of error of  $\pm 4\%$

<sup>o</sup>Hits that have to do with religious objectors

<sup>ç</sup>Hits dealing with those described as “fit/capable/able” to bear arms

## APPENDIX 2

**Possible Percentages\* for the “Figurative Sense” of “Bear Arms”**

	Initial Raw No. of Hits	Initial % of Relevant Sample	% If All Unclear “Religious” Figurative	% If All “Religious” Figurative	% If All Unclear “Able” Figurative	% If All “Able” Figurative
Sample Size		--	--	--	--	--
Total Relevant	224	--	--	--	--	--
Figurative	147	65.26%	66.5%	70.5%	75.9%	79.5%
Literal	47	21.0%	21.0%	17.4%	21.0%	17.4%
Unclear	30	13.4%	12.5%	12.1%	3.0%	3.1%
“Religious” <sup>o</sup>	51	22.8%	--	--	--	--
“Able” <sup>ç</sup>	51	22.8%	--	--	--	--
Duplicates	43	--	--	--	--	--
Irrelevant	62	--	--	--	--	--

\*This sample size (329 total hits) is large enough to achieve a 95% confidence interval with a margin of error of  $\pm 4\%$

<sup>o</sup>Hits that have to do with religious objectors

<sup>ç</sup>Hits dealing with those described as “fit/capable/able” to bear arms

