BIG DATA COMES FOR TEXTUALISM: THE USE AND ABUSE OF CORPUS LINGUISTICS IN SECOND AMENDMENT LITIGATION

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ABSTRACT

In District of Columbia v. Heller, decided in 2008, the Supreme Court held for the first time that the Second Amendment confirmed an individual, enforceable right to keep and bear arms—repudiating the opposing view that the Second Amendment protected only a collective, militia right. In so holding, the Court emphatically rejected the argument, advanced in an amicus brief by linguists and professors of English, that whether the Second Amendment protected an individual right or a collective right could be determined by examining texts from around the Founding Era and counting the number of times the term "bear arms" appeared in a military context as opposed to a non-military context. If military uses heavily outnumbered the non-military uses, the linguists' brief argued, the Second Amendment only protected a collective right, which is no right at all.

Although the Supreme Court squarely rejected that approach, in later amicus briefs filed in Second Amendment cases, the briefs presented similar arguments based on the newly fashionable field of corpus linguistics. In corpus linguistics, large databases called "corpora" are subjected to computerized searches that count the uses of words or phrases in one context or another in order to purportedly determine their meaning. Proponents of corpus linguistics claim that it is a "scientific" and "objective" way of determining meaning. Although the numbers of documents that can be searched is larger today than in the past,

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fundamental problems at the core of corpus linguistics vitiate its use in constitutional and often other contexts. That is likely why the majority in the Supreme Court's most recent foray into Second Amendment jurisprudence—New York State Rifle & Pistol Association v. Bruen—did not even deem the argument worthy of discussion, even though it was advanced by several amicus briefs and was noted by Justice Stephen Breyer's dissenting opinion.

The problems with the corpus linguistics approach are many. In determining the original understanding of a constitutional provision, the voice of the "common man" will, contrary to proponents of corpus linguistics, often not be heard, but rather the voices of elites. The corpora are often incomplete and do not include key texts that scholars have long relied upon to determine constitutional meaning. Corpora will often be biased in favor of newsworthy events, such as wars, and will not record important traditions. Bias may also result from historical and temporal circumstances, which may disproportionately reflect "what people are talking about at the time" rather than ordinary meaning.

More fundamentally, the "frequency hypothesis," on which the entire legal corpus linguistics endeavor relies, is unsound. Just because one meaning of "bear arms" more frequently appears in an assortment of documents does not mean that that is the meaning in a particular instance, such as the use of "bear arms" in the Constitution. Culling a large number of irrelevant results and categorizing the remaining results according to their assumed meaning is often purely subjective, irreproducible, and far from scientific.

To date, corpus linguistics arguments have most often been presented on appeal by amicus briefs, which from a procedural standpoint often does not give the opposing party an effective opportunity to respond. Lawyers and judges are not trained in corpus linguistics so, if the tool is to be relied upon at all, expert testimony after appropriate discovery should be required to meet the standards of admissibility under the Federal Rules of Evidence and Daubert v. Merrell Dow Pharmaceuticals and its state analogues.

In the end, merely counting the number of "hits" cannot displace the proper focus in constitutional interpretation, which is the text, history, and tradition of the relevant provision. There was very little legal regulation of private ownership and use of firearms for lawful purposes in the Colonial and Founding Eras, and there was a rich, widespread, unbroken tradition of such use by private individuals. The ideas prevailing at the time of the Founding were that the right to defend one's life with arms was a natural, God-given right, as well as part of the common law right to self-defense.

Specific dangers also exist, now and in the future, that corpora based on current recorded language may be subject to manipulation and political and

cultural bias. For all of these reasons, courts should be extraordinarily wary of embracing word counts in lieu of sound legal and historical analysis in determining the meaning and scope of constitutional texts.

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I. INTRODUCTION[1]

In *District of Columbia v. Heller*, the Supreme Court soundly rejected the argument raised by professors of linguistics in an amicus brief[2] that word frequency counts could limit the Second Amendment's phrase "bear arms"[3] to a solely military meaning as opposed to also including an individual right to carry arms for private purposes.[4] A decade later, that argument has been resurrected in the form of "corpus linguistics," which involves computerized searches of large databases of texts called "corpora" to arrive at word frequency counts.[5] Because the phrase "bear arms" appears most frequently in a military context in these searches, certain proponents of this method

1. The information presented here has been prepared for general information and scholarly research purposes only. It does not constitute legal or other advice, is not to be acted on as such, may not be current, and is subject to change without notice.

2. *See* Brief for Professors of Linguistics and English Dennis E. Baron, Ph.D. et al. in Support of Petitioners at 18–27, District of Columbia v. Heller, 554 U.S. 570 (2008) (No. 07-290) [hereinafter *Heller* Linguists' Brief].

3. U.S. CONST. amend. II.

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

5. *See* discussion *infra* Part I.B.

claim that the Second Amendment does not protect an individual right to carry arms but rather applies only to militia or military uses, and *Heller* should be overruled.[6]

This Article seeks to examine those claims. In *Heller*, the Supreme Court emphatically rejected the concept, advanced in the *Heller* Linguists' Brief, that counting the number of times that "bear arms" appeared in a military context and finding that the military context usages outnumbered those referring to individual carrying of arms was sufficient to exclude a private, individual right to carry arms from the protection of the Second Amendment.[7]

In the past several years, in a new round of amicus briefs, certain corpus linguistics advocates have attempted to resuscitate this already-rejected approach by making the same argument but on a larger scale using computerized searches.[8] These proponents, however, have not cured any of the fatal flaws of that argument since Justice Antonin Scalia's opinion in *Heller* refuted it and made it clear that the Second Amendment protects an individual right separate from militia service.[9]

Because corpus linguistics relies on computerized searches of large bodies of texts in an attempt to determine the meaning of a disputed word or phrase, it has been touted as a way of discovering the "original public meaning" of constitutional terminology by searching historical corpora that contain texts from around the time of the Founding.[10] Thus, it has sometimes attracted attention from scholars and judges who favor originalism in constitutional interpretation.[11]

But the use of corpus linguistics in legal analysis is neither "scientific" nor "objective" as its proponents claim. As we demonstrate below, corpus linguistics fails as a scientific tool at every step of the process.[12] Even if corpus linguistics were scientific and objective, it also suffers from practical and procedural flaws. Claims that corpus linguistics is an objective scientific analysis are further undercut by the retroactive manipulation of corpora in

6. *See* discussion *infra* Part III.
7. *Heller*, 554 U.S. at 589.
8. *See* discussion *infra* Part I.B.
9. *See Heller*, 554 U.S. at 588 (rejecting the linguists' amicus arguments).
10. *See* discussion *infra* Part I.B.
11. *See* discussion *infra* Part I.B.
12. *See* discussion *infra* Part III.

the present-day atmosphere of cancel culture, historical revisionism, and censorship.[13]

But most importantly, the methodology itself is a flawed approach to making judgments about constitutional meaning. History and tradition shed far more light on how the Founders viewed the right to carry arms than word counts possibly can. The ideas of the Founders about the source and nature of natural rights are also essential in determining whether they conceived the right to bear arms as narrowly limited to militia service.

The Second Amendment protects the most fundamental right that we have: the right to protect ourselves against deadly attacks. It is also a bulwark against tyranny, against leaving the people disarmed in the face of those intent on oppression.[14] It is too important to be tinkered with by a mode of interpretation that fails to engage seriously the history, traditions, purposes, and ideas that underlie it.

A. *Corpus Linguistics 1.0: The* Heller *Court Rejects Anti-Gun Rights Arguments by Linguists Based on Word Counts*

"The Supreme Court's grant of *certiorari* in [*Heller*] set off a media frenzy typically reserved for cases involving such culture-war touchstones as abortion, affirmative action, and prayer in schools."[15] Since its 1939 decision in *United States v. Miller*,[16] the Court had not meaningfully addressed the Second Amendment, and never in its history had it robustly considered the nature and scope of the rights protected by it. In *Heller,* the Court faced for the first time a choice between two competing theories of what the Second Amendment protects: either an amorphous, unenforceable "collective" right to have and use arms solely for militia purposes, or an individual right, enforceable in court like other provisions of the Bill of Rights, to keep and carry firearms for self-defense and other lawful purposes.[17] The Supreme Court confirmed what most Americans have known throughout our history: the Second Amendment recognizes and protects an individual right to arms for lawful purposes such as self-defense.[18]

13. *See* discussion *infra* Part V.F.

14. *See Heller*, 554 U.S. at 599.

15. Ilya Shapiro, *Friends of the Second Amendment: A Walk Through the Amicus Briefs in* D.C. v. Heller, 20 J. ON FIREARMS & PUB. POL'Y 15, 15 (2008).

16. *See generally* 307 U.S. 174, 176 (1939).

17. *Heller*, 554 U.S. at 576.

18. *Id.* at 582, 630 (holding that the Second Amendment protects "an individual right to keep and bear arms," the "core lawful purpose" is self-defense, and that individual right is "unconnected with militia service").

Heller generated a record 68 amicus briefs,[19] including, as noted, the *Heller* Linguists' Brief.[20] The *Heller* Linguists' Brief bears mentioning because it employed a methodology that purported to divine the meaning of "bear arms" in the Second Amendment by counting the number of times that phrase occurred in a military context.[21] In their brief, the professors and linguists stated that they had reviewed 115 different texts either written or published between 1776 and 1791 that used the term "bear arms," and concluded that 110 employed those words in a military context.[22] From this nose-counting, they argued that the meaning of "bear arms" in the Second Amendment concerned only bearing arms for militia or military purposes and did not protect a private, individual right to bear arms.[23] The *Heller* Linguists' Brief thus lined up entirely with the views of numerous anti-firearms rights groups, who contend that the Second Amendment—unlike the rest of the Bill of Rights—protects only an alleged collective right.[24]

The *Heller* Court singled out this argument advanced by the linguists—a forerunner of corpus linguistics—and expressly and unequivocally rejected their approach.[25] As Justice Scalia wrote for the majority:

> Justice [John Paul Stevens] points to a study by *amici* supposedly showing that the phrase "bear arms" was most frequently used in the military context. . . . [But] the fact that the phrase was commonly used in a particular context does not show that it is limited to that context, and, in any event, we have given many sources where the phrase was used in nonmilitary contexts. Moreover, the study's collection appears to include (who knows how many times) the idiomatic phrase "bear arms against," which is irrelevant. The *amici* also dismiss examples such as "'bear arms . . . for the purpose of killing game'" because those uses

19. Shapiro, *supra* note 15. This record has since been passed by the 147 amicus briefs filed in *Obergefell v. Hodges*. 576 U.S. 644 (2015). *See* Anthony J. Franze & R. Reeves Anderson, *Record Breaking Term for Amicus Curiae in Supreme Court Reflects New Norm*, NAT'L L.J. (Aug. 19, 2015), https://www.law.com/2015/08/19/record-breaking-term-for-amicus-curiae-in-supreme-court-reflects-new-norm/.

20. *Heller* Linguists' Brief, *supra* note 2, at 1.

21. *Id.* at 24. The Second Amendment provides: "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." U.S. CONST. amend. II.

22. *Heller* Linguists' Brief, *supra* note 2, at 24.

23. *Id.* at 29.

24. *Id.* at 25–26.

25. District of Columbia v. Heller, 554 U.S. 570, 584–89 (2008).

> are "expressly qualified." (Justice S[tevens] uses the same excuse for dismissing the state constitutional provisions analogous to the Second Amendment that identify private-use purposes for which the individual right can be asserted.). That analysis is faulty. A purposive qualifying phrase that contradicts the word or phrase it modifies is unknown this side of the looking glass (except, apparently, in some courses on linguistics). If "bear arms" means, as we think, simply the carrying of arms, a modifier can limit the purpose of the carriage ("for the purpose of self-defense" or "to make war against the King"). But if "bear arms" means, as the petitioners and the dissent think, the carrying of arms only for military purposes, one simply cannot add "for the purpose of killing game." The right "to carry arms in the militia for the purpose of killing game" is worthy of the Mad Hatter. Thus, these purposive qualifying phrases positively establish that "to bear arms" is not limited to military use.[26]

The fact the Supreme Court considered and then squarely rejected the arguments made in the *Heller* Linguists' Brief is not only telling but is actually dispositive of today's debate about what role, if any, corpus linguistics should play in the interpretation of the Second Amendment.

B. *Corpus Linguistics 2.0: The Not So "New and Improved" Corpus Linguistics*

In 2019, over a decade after the Supreme Court decided *Heller* and rejected the arguments made in the *Heller* Linguists' Brief, linguists were back at it in another Second Amendment case, *New York State Rifle & Pistol Association v. City of New York* (*NYSRPA*).[27] Two amicus briefs were filed in that case by proponents of corpus linguistics.[28] We do not know the Supreme Court's response, if any, to these two briefs in the *NYSRPA* case because the Court vacated the decision by the Second Circuit on mootness

26. *Id.* at 588–89 (footnote omitted).

27. *See* 140 S. Ct. 1525 (2020).

28. Brief for Corpus Linguistics Professors & Experts as Amici Curiae Supporting Respondents at 7–17, *N.Y. State Rifle & Pistol Ass'n, Inc.,* 140 S. Ct. 1525 (2020) (No. 18-280) [hereinafter *NYSRPA* Linguists' Brief]; Brief of Neal Goldfarb as Amicus Curiae in Support of Respondents, Arguing that as to the Second Amendment Issue, the Petition Should be Dismissed as Improvidently Granted, at 12–26, *N.Y. State Rifle & Pistol Ass'n, Inc.*, 140 S. Ct. 1525 (2020) (No. 18-280) [hereinafter *NYSRPA* Goldfarb Brief]. Goldfarb also sought to participate in oral argument, but the Court denied his motion. Motion of Neal Goldfarb for Leave to Participate in Oral Argument and for Divided Argument, *N.Y. State Rifle & Pistol Ass'n, Inc.*, 140 S. Ct. 1525 (2020) (No. 18-280).

grounds without reaching the merits.[29] But the amicus briefs filed in *NYSRPA* advocating the supposedly new science of legal corpus linguistics appear to be part of a continuing effort to convince the courts to adopt this method of interpretation—particularly in Second Amendment cases. This effort has continued in cases that have followed *NYSRPA* to the Supreme Court.[30]

So, what is corpus linguistics? To start, we must define "linguistics." Simply put, linguistics is the study of language and its structure.[31] Corpus linguistics as an academic field has been around for decades.[32] It focuses on examining a large collection of digitized texts or other records of language use, called a "corpus," through computerized searches and analyses, as a way to determine the rules that govern various languages, to compare the structures of different languages, and to better understand patterns of language use.[33] Corpus linguistics thus seeks to apply the tools of "big data" to a database of text-searchable documents to reach purportedly objective answers about language meaning and use.[34]

"Legal corpus linguistics" is a narrower application of corpus linguistics.[35] Legal corpus linguistics has received attention in recent years,

29. *N.Y. State Rifle & Pistol Ass'n, Inc.*, 140 S. Ct. at 1526–27.

30. Brief for Corpus Linguistics Professors & Experts as Amici Curiae Supporting Respondents at 4–8, N.Y. State Rifle & Pistol Ass'n, Inc. v. Bruen, 142 S. Ct. 2111 (2022) (No. 20-843) [hereinafter *Bruen* Linguists' Brief]; Brief of Neal Goldfarb as Amicus Curiae in Support of Respondents at 5–18, *Bruen*, 142 S. Ct. 2111 (No. 20-843) [hereinafter *Bruen* Goldfarb Brief].

31. The study of linguistics can be traced back to the 6th century A.D. *See* RENS BOD, A NEW HISTORY OF THE HUMANITIES: THE SEARCH FOR PRINCIPLES AND PATTERNS FROM ANTIQUITY TO THE PRESENT 14 (Oxford Univ. Press 2013). However, modern day linguistics became popularized in the 1950s by the scholarship of American linguist Noam Chomsky. P.H. MATTHEWS, *Chomsky, Avram Noam*, *in* THE CONCISE OXFORD DICTIONARY OF LINGUISTICS (Oxford Univ. Press 2d ed. 2007).

32. *See* Lawrence M. Solan & Tammy Gales, *Corpus Linguistics as a Tool in Legal Interpretation*, 2017 BYU L. REV. 1311, 1337 (2017) ("For the past few decades, corpus methods have been revolutionizing all branches of linguistics. . . .").

33. For corpus linguistics purposes, a corpus is a searchable "body" of texts generally targeting a specific language, era, or other specialized language domain. *See* TONY MCENERY & ANDREW HARDIE, CORPUS LINGUISTICS: METHOD, THEORY AND PRACTICE 1–22 (Cambridge Univ. Press 2011).

34. *See* Lee J. Strang, *How Big Data Can Increase Originalism's Methodological Rigor: Using Corpus Linguistics to Reveal Original Language Conventions*, 50 U.C. DAVIS L. REV. 1181, 1183–88 (2017).

35. Anya Bernstein, *Legal Corpus Linguistics and the Half-Empirical Attitude*, 106

largely in law reviews,[36] as a supposedly new, scientific tool for determining the meaning of words or phrases in constitutions, statutes, or other legal documents.[37] Legal corpus linguistics generally involves electronic searches of corpora for words or combinations of words, and categorization of the results by usage or by context, all in an attempt to determine the meaning of a word or phrase that is legally relevant in a particular case.[38] Proponents of legal corpus linguistics state that it is "a *scientific* discipline" and its primary goal "is to use methodological[ly] valid techniques in order to *discover*

CORNELL L. REV. 1397, 1412–13 (2021). For the sake of brevity, "corpus linguistics" is used in this article to mean "legal corpus linguistics," which is the only subject under discussion here.

36. Though corpus linguistics has generated significant scholarly discussion, its effect on case law to date has been quite limited. *See* discussion *infra* Parts I.C, I.D.

37. *See, e.g.*, Stephen C. Mouritsen, *Hard Cases and Hard Data: Assessing Corpus Linguistics as an Empirical Path to Plain Meaning*, 13 COLUM. SCI. & TECH. L. REV. 156, 160 (2011); James C. Phillips, Daniel M. Ortner & Thomas R. Lee, *Corpus Linguistics & Original Public Meaning: A New Tool To Make Originalism More Empirical*, 126 YALE L.J. F. 21 (2016), https://www.yalelawjournal.org/forum/corpus-linguistics-original-public-meaning; Strang, *supra* note 34, at 1184; Neal Goldfarb, *A Lawyer's Introduction to Meaning in the Framework of Corpus Linguistics*, 2017 BYU L. REV. 1359, 1359–63 (2018) [hereinafter Goldfarb, *A Lawyer's Introduction*]; Stefan Th. Gries & Brian G. Slocum, *Ordinary Meaning and Corpus Linguistics*, 2017 BYU L. REV. 1417, 1422 (2018); Hanjo Hamann & Friedemann Vogel, *Evidence-Based Jurisprudence Meets Legal Linguistics—Unlikely Blends Made in Germany*, 2017 BYU L. REV. 1473, 1474–75 (2018); Jennifer L. Mascott, *Who Are "Officers of the United States"?*, 70 STAN. L. REV. 443 (2018); Jennifer L. Mascott, *The Dictionary as a Specialized Corpus*, 2017 BYU L. REV. 1557, 1558 (2018); Thomas R. Lee & Stephen C. Mouritsen, *Judging Ordinary Meaning*, 127 YALE L.J. 788, 792–96 (2018) [hereinafter Lee & Mouritsen, *Judging Ordinary Meaning*]; Jake Linford, *Datamining the Meaning(s) of Progress*, 2017 BYU L. REV. 1531, 1531–33 (2018); James C. Phillips & Jesse Egbert, *Advancing Law and Corpus Linguistics: Importing Principles and Practices from Survey and Content-Analysis Methodologies to Improve Corpus Design and Analysis*, 2017 BYU L. REV. 1589, 1590–92 (2018); Dennis Baron, *Corpus Evidence Illuminates the Meaning of* Bear Arms, 46 HASTINGS CONST. L.Q. 509, 509–10 (2019) [hereinafter Baron, *Corpus Evidence*]; Thomas R. Lee & James C. Phillips, *Data-Driven Originalism*, 167 U. PA. L. REV. 261, 264–66 (2019); James C. Phillips & Josh Blackman, *Corpus Linguistics and* Heller, 56 WAKE FOREST L. REV. 609, 631–40 (2021). Most of these law review articles have been authored by proponents of corpus linguistics. There have been some articles, however, that are critical of corpus linguistics. *See, e.g.*, Carissa Byrne Hessick, *Corpus Linguistics and the Criminal Law*, 2017 BYU L. REV. 1503, 1504–05 (2018); John S. Ehrett, *Against Corpus Linguistics*, 108 GEO. L.J. Online 50, 52–54 (2019); Donald L. Drakeman, *Is Corpus Linguistics Better than Flipping a Coin*?, 109 GEO. L.J. Online 81, 81–84 (2020); Kevin P. Tobia, *Testing Ordinary Meaning*, 134 HARV. L. REV. 726, 770 (2020) [hereinafter Tobia, *Testing Ordinary Meaning*] (finding that corpus linguistics method is often underinclusive).

38. *See generally* Goldfarb, *A Lawyers Introduction*, *supra* note 37, at 1359–62.

objective reality."[39] They further claim that "[b]ecause so much of legal scholarship revolves around linguistic questions, corpus methods can be leveraged to provide *scientifically valid methods for learning objective reality* to answer those questions."[40] Apparently, by christening the approach with a new, technical, and scientific-sounding name—corpus linguistics—the proponents of the method believe they have conferred scientific, objective validity on a method already rejected by the Supreme Court for its deficiencies.[41]

For corpus linguistics or legal corpus linguistics to function, or even to exist, there must first be a corpus to search. The two corpus linguistics briefs in *NYSRPA* relied on searches of two corpora for appearances of single words or combinations of words.[42] In a manner similar to the *Heller* Linguists' Brief, the *NYSRPA* Goldfarb Brief and *NYSRPA* Linguists' Brief categorized references to "arms," "bear," "bear arms," and related terms as appearing either in a military context or in a non-military context.[43] For example, the *NYSRPA* Goldfarb Brief found that a search for the verb "bear" and the noun "arms" within four words of each other in those two corpora resulted in 531 hits (known as "concordance lines"); Goldfarb categorized 503 of these instances (almost 95 percent) as conveying a military meaning.[44] Of the remaining 24 lines, he classified two lines as

39. *Law & Corpus Linguistics—Background*, BYU L.: LAW & CORPUS LINGUISTICS (emphasis added), https://lcl.byu.edu/projects/law-corpus-linguistics-background/ [https://perma.cc/XC6Q-XZMS] (Oct. 8, 2019).

40. *Id.* (emphasis added).

41. *See* District of Columbia v. Heller, 554 U.S. 570, 588–89 (2008).

42. *NYSRPA* Linguists' Brief, *supra* note 28, at 17–27; *NYSRPA* Goldfarb Brief, *supra* note 28, at 14–25. The *NYSRPA* Linguists' Brief relied chiefly on results reported in an article written by Professor Baron, one of the named amici joining that brief. *See generally NYSRPA* Linguists' Brief, *supra* note 28; Baron, *Corpus Evidence*, *supra* note 37. That article was based on searches of two corpora made available by the J. Reuben Clark Law School at Brigham Young University ("BYU"). *Id.* at 509. The first, the Corpus of Founding Era American English ("COFEA"), contains about 120,000 texts. *Id.* at 510. The second, Corpus of Early Modern English ("COEME"), has about 40,000 texts. *Id.* The Goldfarb Brief, filed by attorney Neal Goldfarb on behalf of himself, relied on searches performed by him in the same two corpora. *NYSRPA* Goldfarb Brief, *supra* note 28, at 12–14. Although this Article discusses in Part III, *infra*, the possibility or potential of manipulation of corpora to affect results—especially when the results of a search may influence the outcome of an intensely partisan or a hotly contested policy question—we do not assert that these corpora have been manipulated by Goldfarb, Baron, or anyone else.

43. *NYSRPA* Linguists' Brief, *supra* note 28, at 23, 25; *NYSRPA* Goldfarb Brief, *supra* note 28, at 13.

44. *NYSRPA* Goldfarb Brief, *supra* note 28, at 21.

consistent with *Heller*'s interpretation, but excluded them from being counted as being consistent because they were "metaphorical."[45] He considered 15 lines to be "ambiguous" as to whether they were military or comported with *Heller*'s "ordinary meaning" test.[46] But Goldfarb admitted that he categorized 11 lines (2 percent) as "unambiguously" using the term "bear arms" to mean "carry weapons" *outside* the military context, one of the meanings *Heller* found to be included in the Second Amendment's use of the phrase.[47] Similarly, the *NYSRPA* Linguists' Brief stated that "[o]ut of nearly 1,000 examined uses of 'bear arms' in 'seventeenth[] and eighteenth[]century English and American texts,' 'roughly 900 separate occurrences of *bear arms* before and during the [F]ounding era'" had a military or collective context, and "only a handful of results from those corpora 'were either ambiguous or carried no military connotation.'"[48]

Even though legal corpus linguistics had not formally emerged as a new field of study or advocacy in 2008, the opinion in *Heller* thoroughly evaluated the *Heller* Linguists' Brief and just as thoroughly rejected it, including the linguists' argument that counting the number of uses of "bear arms" in military as opposed to non-military contexts would be useful in determining the meaning of the Second Amendment.[49] The only meaningful difference between the *Heller* Linguists' Brief (filed in 2008) and the two briefs in *NYSRPA* (filed in 2019) is that the two *NYSRPA* briefs depended on locating the relevant words or terms by searching large, computerized corpora rather than by individually examining a smaller group of texts.[50] But the analysis performed in the two *NYSRPA* briefs appears to be functionally identical to that performed some 10 years earlier and emphatically rejected

45. Neal Goldfarb, *Corpus Data Regarding "Bear Arms" & "Carry Arms"* (last updated Sept. 11, 2021, 7:26 PM) [hereinafter Goldfarb, *"Bear Arms"* Spreadsheet] (The spreadsheet containing this data is downloadable at https://www.dropbox.com/sh/r0y0kgdc63rxtjd/AAC_Ye2FJVBhoCk2H8cwMv9oa?dl=01).

46. *Id.*

47. *Id.*; District of Columbia v. Heller, 554 U.S. 570, 599 (2008) ("The prefatory clause does not suggest that preserving the military was the only reason Americans valued [the Second Amendment]; most undoubtedly thought it even more important for self-defense and hunting.").

48. *NYSRPA* Linguists' Brief, *supra* note 28, at 18–19. Similar arguments were presented in a subsequent term in N.Y. State Rifle & Pistol Ass'n, Inc. v. Bruen, 142 S. Ct. 2111 (2022). *See Bruen* Goldfarb Brief, *supra* note 30, at 8; *Bruen* Linguists' Brief, *supra* note 30, at 14–17.

49. *Heller*, 554 U.S. at 584–89.

50. *See generally Heller* Linguists' Brief, *supra* note 2, at 14–30; *NYSRPA* Linguists' Brief, *supra* note 28, at 17–25; *Bruen* Linguists' Brief, *supra* note 30, at 13–21.

by the Supreme Court in *Heller* (categorizing the context in which the search results were found as either military or non-military, counting the results to determine which is the numerically dominant context, and concluding that the numerically dominant context determines what those words mean when used in the Second Amendment).[51]

The *NYSRPA* Goldfarb Brief went so far as to contend that its findings mandated the reversal of *Heller*. The brief stated that it was filed "to bring [Goldfarb's] analysis to the Court's attention, and to urge that the Court decline to decide the Second Amendment issue in this case," and that "the issue should not be decided unless *Heller* is revisited first. . . ."[52] "[G]iven that *Heller* has been called in question," the brief warned, "it would be a mistake for the Court to continue applying *Heller*."[53] Goldfarb opined that his results were so important that "the need to reexamine *Heller* cannot be avoided[,]" and "it would not be appropriate for the Court to decide any Second Amendment issues while *Heller*'s continuing validity is under a cloud of uncertainty."[54] The *NYSRPA* Goldfarb Brief contended that the corpus linguistics results presented there were so new and compelling that, going forward, "it would probably be necessary to reexamine all prior scholarship that treated *bear arms* meaning 'carry weapons whether or not in the military' or 'carry weapons in the military.' (Which is just another way of saying 'most if not all prior scholarship.')."[55]

These are audacious claims, to say the least. But does the application of corpus linguistics to the Second Amendment really require re-examination of all prior scholarship on the subject, including *Heller* itself? It does not. Corpus linguistics is a flawed methodology, and its use is particularly unpersuasive in seeking to override a known history in which the right to carry arms privately and peacefully was unfettered during the

51. *See* Phillips & Blackman, *supra* note 37, at 632–35. The authors performed their own research in Corpus of Founding Era American English, found similar numerical results, and yet concluded that "our best sense of the original public meaning of the Second Amendment, based solely on this linguistic data, is that it covered both a collective and an individual right to keep and bear arms"—the exact conclusion reached in *Heller*. *Id.* at 683. These authors cannot be characterized as opposing corpus linguistics generally, since James Phillips is a prominent proponent of corpus linguistics in the legal field and, in fact, is the principal designer of COFEA. *See* sources cited *supra* note 37.

52. *NYSRPA* Goldfarb Brief, *supra* note 28, at 2. In his more recent submission, Goldfarb continues to argue that "*Heller's* interpretation of the prefatory clause is overdue for reconsideration." *Bruen* Goldfarb Brief, *supra* note 30, at 20.

53. *NYSRPA* Goldfarb Brief, *supra* note 28, at 5.

54. *Id.* at 26.

55. *Id.* at 28.

Founding period and in the early American Republic. That pre-existing right was recognized and protected by the Second Amendment and various state constitutional guarantees.[56] There was a long, unbroken tradition of widespread carrying of arms, and the right to carry arms for purposes of self-defense was considered a fundamental natural right that could not be abrogated by any law of civil society.[57] When compared to this longstanding, robust, and well-documented history and tradition, counting up words sheds little or no light on the original public meaning of the Second Amendment.

C. *The Corpora: Been There, Done That*

As a threshold matter, advocates of corpus linguistics often claim that it is new.[58] But is it really? In the Second Amendment context, at least, the materials relevant to determining the meaning of that amendment (i.e., the contents of corpora) have been available for many decades, and often for centuries. The big data tools used to count words or phrases are relatively new, but that does not fundamentally change the analysis because it has been known since the Second Amendment's adoption that the "right of the people to keep and bear arms" embraced both militia or military meanings *and* non-military meanings.[59] And the relevant texts in the corpora have not changed in over 200 years.

The Corpus of Founding Era American English (COFEA), for example, used by both the Linguists' Brief and the Goldfarb brief in *NYSRPA*, is composed of the following collection of texts:

- Elliot's *The Debates in the Several State Conventions on the Adoption of the Federal Constitution*,
- Farrand's Records of the Federal Convention of 1787,
- Founders Online (the papers of six Founders),
- a selection of HeinOnline documents from the relevant period,
- United States Statutes at Large for the first five Congresses, and

56. For early state constitutional arms protections, and early militia statutes requiring private firearms ownership, see NICHOLAS J. JOHNSON ET AL., FIREARMS LAW AND THE SECOND AMENDMENT: REGULATION, RIGHTS, AND POLICY (2d ed., Wolters Kluwer 2017) [hereinafter JOHNSON ET AL., FIREARMS LAW].

57. District of Columbia v. Heller, 554 U.S. 570, 592–94 (2008).

58. *See, e.g.*, *NYSRPA* Goldfarb Brief, *supra* note 28, at 9–24; Phillips & Egbert, *supra* note 37, at 1590.

59. *See Heller*, 554 U.S. at 587–89.

- Evans Early American Imprints.[60]

These sources have been widely available for many years and have long been used by scholars debating questions of constitutional interpretation.[61] Elliot's *Debates* was first published in 1830, and Farrand's *Records* was first published in 1911.[62] The papers of the Founders have long been available in various editions. The Hein Online selection and the Statutes at Large merely reproduce basic legal documents from the Founding period.[63] In addition, works such as the massive Documentary History of the Ratification of the Constitution, and extensive online resources, have made primary source documents available to any researcher.[64]

60. At the time of this writing, the BYU webpage describing the COFEA project states that COFEA is composed of these six corpora. *See Corpus of Founding Era American English (COFEA)*, BYU L.: LAW & CORPUS LINGUISTICS, https://lcl.byu.edu/projects/cofea [https://perma.cc/WTG5-SG3U] (July 13, 2022).

61. The only possible exception is material taken from Evans Early American Imprints, which purports to contain the text of virtually every book, broadside, and pamphlet published in the colonies and early republic from 1639 to 1800. *See Early American Imprints, Series I: Evans, 1639–1800*, READEX, https://www.readex.com/products/early-american-imprints-series-i-evans-1639-1800 [https://perma.cc/N4TX-WY2V]. The full digitized version by Readex contains about 38,000 texts. *Id.* The portion of the Evans material contained in COFEA was obtained from the Michigan Text Creation Partnership. *Corpus of Founding Era American English (COFEA)*, *supra* note 60. *See Evans Early American Imprints (Evans) TCP*, TEXT CREATION P'SHIP., https://textcreationpartnership.org/tcp-texts/evans-tcp-evans-early-american-imprints/ [https://perma.cc/K7HY-UWVK]. The portion included in COFEA consists of 2,646 texts and makes up nearly half of the number of words in that corpus. *Corpus of Founding Era American English (COFEA)*, *supra* note 60. *Evans Early American Imprints* was begun in 1955, but was originally published in micro opaque form, requiring a specialized optical reader. The Evans documents have now been digitized by Readex, but that collection is expensive to purchase commercially.

62. *Precedents of the U.S. House of Representatives*, GOVINFO, https://www.govinfo.gov/collection/precedents-of-the-house?path=/GPO/Precedents%20of%20the%20U.S.%20House%20of%20Representatives [https://perma.cc/G3YL-HTD5]; *Farrand's Records: The Records of the Federal Convention of 1787*, LIBR. CONG.: AM. MEMORY, https://memory.loc.gov/ammem/amlaw/lwfr.html#:~:text=The%20Records%20of%20the%20Federal%20Convention%20of%201787&text=Published%20in%201911%2C%20Farrand's%20work,workings%20of%20the%20Constitutional%20Convention [https://perma.cc/FQ5U-G52S].

63. The HeinOnline collection is said to consist of "mostly session laws, executive department reports, and legal treatises." *Corpus of Founding Era American English (COFEA)*, *supra* note 60.

64. *See, e.g.*, *The Documentary History of the Ratification of the Constitution*, UNIV. WIS. MADISON: LIBRS. SEARCH, http://digital.library.wisc.edu/1711.dl/History.Constitution [https://perma.cc/GP4S-54NK].

The BYU-Corpus of Early Modern English (COEME) also appears to contain little if anything that is new. According to BYU, COEME "cover[s] texts from 1475–1800 that were included in the Evans Bibliography, the Early English Books Online (EEBO), Eighteenth Century Collections Online (ECCO) corrected by the Text Creation Partnership (TCP) Evans Bibliography (University of Michigan)."[65] Of these, much of the relevant part of the Evans Bibliography is already in COFEA.[66] According to the University of Michigan, the Early English Books Online (EEBO) corpus traces "the history of English thought from the first book printed in English in 1475 through to 1700. The books in these collections include works of literature, philosophy, politics, religion, geography, history, . . . mathematics, music, the practical arts, natural science, and all other areas of human endeavor."[67]

As a small sampling, EEBO contains works by "Erasmus, Shakespeare, King James I, Marlowe, Galileo, Caxton, Chaucer, Malory, Boyle, Newton, Locke, More, Milton, Spenser, Bacon, Donne, Hobbes, Purcell, Behn, and Defoe."[68] But of these, the writers whose works are likely to contain words or phrases relevant to legal interpretation or political philosophy (such as Locke, More, Milton, Bacon, Defoe, and Hobbes)[69] have long been available and been used to inform our understanding of the original meaning of Founding Era legal texts.[70]

65. *See BYU-Corpus of Early Modern English (BYU-COEME)*, BYU L.: LAW & CORPUS LINGUISTICS, https://lcl.byu.edu/projects/byu-corpus-of-early-modern-english-byu-coeme/ [https://perma.cc/YAR9-R8Z5] (July 13, 2022).

66. At the time of this writing, COFEA is said to contain 2,646 documents from the Evans Bibliography whereas COEME is said to contain 4,977 from that collection. *Corpus of Founding Era American English (COFEA)*, *supra* note 60. COEME extends back much further in history than the 1760–1799 period most often examined in the Second Amendment Supreme Court linguists' briefs.

67. *Early English Books Online (EEBO) TCP*, TEXT CREATION P'SHIP, https://textcreationpartnership.org/tcp-texts/eebo-tcp-early-english-books-online/ [https://perma.cc/4RT6-LTE2].

68. *Id.*

69. *See People Known for: Political Philosophy*, BRITANNICA, https://www.britannica.com/biographies/philosophy-religion/political-philosophy [https://perma.cc/632N-H4N2] (providing information on prominent political thinkers such as Locke, Hobbes, etc.).

70. *See* STEPHEN P. HALBROOK, THE FOUNDERS' SECOND AMENDMENT: ORIGINS OF THE RIGHT TO BEAR ARMS 114 (Ivan R. Dee 2008) [hereinafter HALBROOK, FOUNDER'S SECOND AMENDMENT] (listing political philosopher John Locke as influential on Thomas Jefferson during the writing of the Constitution).

The Eighteenth Century Collections Online (ECCO), the final source of texts contained in COEME, is said by its commercial publisher to contain "every significant English-language and foreign-language title printed in the United Kingdom during the eighteenth century as well as thousands of important works from the Americas . . . ."[71] It is advertised as having 135,000 titles in Part I, and nearly 50,000 additional titles in Part II.[72] Apparently, COEME includes at most 2,473 of these titles, made available to BYU through the Michigan Text Creation Partnership.[73] Which of these 2,473 titles are included in COEME, how they were chosen, and how representative they might be of the universe of printed titles contained in the commercial version of ECCO is unknown to us. Certainly, books printed in the United Kingdom and the Americas during the eighteenth century relevant to the Constitution and Bill of Rights have been examined by scholars for decades, indeed centuries.[74] So, there is nothing new from that standpoint. As previously noted, the Evans Early American Imprints are already represented in COFEA and COEME, so there is also a substantial likelihood that for American titles in particular there will be some overlap between ECCO and the Evans documents.[75]

Thus, most of the contents of these corpora have long been available to and researched by researchers and scholars. Only the convenience of the computerized search feature seems new.

So how much marginal value is provided by this computerized search feature in the Second Amendment context? Very little. Modern scholarship on the Second Amendment, beginning around 1980, has been extremely thorough in combing through the relevant historical materials bearing on the Second Amendment's purpose, meaning, and interpretation.[76] As long ago

71. *Access Newly Discovered Works and New Holdings of Eighteenth-Century British Publications*, GALE, https://www.gale.com/c/eighteenth-century-collections-online-part-ii [https://perma.cc/487A-NGML].

72. *Eighteenth Century Collections Online*, GALE, https://www.gale.com/primary-sources/eighteenth-century-collections-online [https://perma.cc/QG4C-LH78].

73. *Eighteenth Century Collections Online (ECCO) TCP*, TEXT CREATION P'SHIP, https://textcreationpartnership.org/tcp-texts/ecco-tcp-eighteenth-century-collections-online/ [https://perma.cc/X7ST-6DXK].

74. *See* Stephen P. Halbrook, *What the Framers Intended: A Linguistic Analysis of the Right to "Bear Arms",* 49 L. & CONTEMP. PROBS. 151, 153–57 (1986) [hereinafter Halbrook, *What the Framers Intended*] (discussing books, publications, and dictionaries used to interpret the Second Amendment).

75. *See supra* Part I.C.

76. Notable book length investigations include STEPHEN P. HALBROOK, THE

as 1997, Justice Clarence Thomas noted, "Marshaling an impressive array of historical evidence, a growing body of scholarly commentary indicates that the 'right to keep and bear arms' is, as the Amendment's text suggests, a personal right."[77]

Heller was exceptional in its detailed collection of evidence regarding the meaning of the text and the history of the right to keep and bear arms—indeed, the majority's analysis of text, history, and tradition extends for some 63 pages.[78] Other seminal Supreme Court cases interpreting the other provisions of the Bill of Rights have examined the historical, legal, and intellectual roots of those Amendments in far less detail than the sources for the Second Amendment have been scrutinized.[79]

Simply put, the collections of texts touted by the proponents of legal corpus linguistics appear to contain virtually nothing new. The corpus linguistics' principal "contribution" in the Second Amendment context is to

RIGHT TO BEAR ARMS: A CONSTITUTIONAL RIGHT OF THE PEOPLE OR A PRIVILEGE OF THE RULING CLASS? (Post Hill Press 2021) [hereinafter HALBROOK, THE RIGHT TO BEAR ARMS]; HALBROOK, FOUNDERS' SECOND AMENDMENT, *supra* note 70; JOYCE LEE MALCOLM, TO KEEP AND BEAR ARMS: THE ORIGINS OF AN ANGLO-AMERICAN RIGHT (Harv. Univ. Press 1994); STEPHEN P. HALBROOK, SECURING CIVIL RIGHTS: FREEDMEN, THE FOURTEENTH AMENDMENT, AND THE RIGHT TO BEAR ARMS (Updated ed., Indep. Inst. 2010) (1998) [hereinafter HALBROOK, SECURING CIVIL RIGHTS]; JOHNSON ET AL., FIREARMS LAW, *supra* note 56. Law review articles written on the subject are countless. *See*, *e.g.*, Halbrook, *What the Framers Intended*, *supra* note 74, at 157–58; Sanford Levinson, *The Embarrassing Second Amendment*, 99 YALE L.J. 637, 646 (1989).

77. Printz v. United States, 521 U.S. 898, 938 n.2 (1997) (Thomas, J., concurring).

78. District of Columbia v. Heller, 554 U.S. 570, 574–636 (2008).

79. *See, e.g.*, Everson v. Bd. of Educ. of Ewing Twp., 330 U.S. 1, 8–16 (1947) (taking nine pages to discuss the history and meaning of the Establishment Clause); Cantwell v. Connecticut, 310 U.S. 296, 303–10 (1940) (taking approximately eight pages to analyze the First Amendment's free exercise clause, virtually none of which is historical); Weeks v. United States, 232 U.S. 383, 389–98 (1914) (applying the Fourth Amendment exclusionary rule to search by federal officers; about 10 pages of analysis, most of which concerns prior case law, with only a small amount of historical review); Miranda v. Arizona, 384 U.S. 436, 459, 489 (1966) (discussing the Fifth Amendment right to counsel and right to remain silent; some very brief historical discussion); N.Y. Times Co. v. Sullivan, 376 U.S. 254, 268–83 (1964) (applying the First Amendment to state libel law with virtually no discussion of text or history); Katz v. United States, 389 U.S. 347, 351 (1967) (explaining that the Fourth Amendment "protects people, not places"); *id.* at 360–62 (Harlan, J., concurring) (articulating "reasonable expectation of privacy" test for Fourth Amendment based on precedent and policy considerations, with no discussion of textual or historical arguments); Brandenburg v. Ohio, 395 U.S. 444, 447–49 (1969) (adopting the "imminent lawless action" test for free speech, based entirely on precedent, with no discussion of the First Amendment's text or history).

provide an excuse for courts to ignore entirely the legal history of the right to arms, the unbroken tradition in this country since its inception of having and using arms, and the ideas of the Founders and their intellectual forebears, and instead rely only on rudimentary word counts. As discussed below, more data does not necessarily mean more valuable information or insight, or a scientifically rigorous analysis.

D. *Overview of the Issues with Legal Corpus Linguistics*

Because the difficulties in applying corpus linguistics to resolve lawsuits are numerous and of several different kinds, we provide a brief overview of those shortcomings before digging more deeply into specific issues. These deficiencies fall into four categories: (1) problems with compiling the corpus itself; (2) flaws with the methodological tools that are central to the corpus linguistics method; (3) practical obstacles to fair and effective use of corpus linguistics in constitutional litigation; and (4) the fundamental difficulty that observing and quantifying bare patterns of language use cannot supersede a genuine understanding of a law's text and history.[80]

We begin with the potential problems with the corpus itself. Especially in corpora that are historical in nature, a corpus may not be representative of how the ordinary individual of that time period would have understood or used a particular word or phrase. The writing of elites may predominate, for example, and the common person may be nearly invisible in writings during the Founding period.[81] Also, there is a potential bias in favor of newsworthiness: some events tend to be recorded (and find their way into a corpus) because they are unusual or important.[82] Meanings concerning such events may be recorded disproportionately while equally common meanings or every day common uses may be recorded only rarely.[83] Similarly, some meanings or contexts may be the subject of much discussion during a particular period due to special historical and temporal circumstances, drowning out other meanings that are not being publicly discussed with as

80. *See* discussion *infra* Parts II–V.

81. *See infra* Part II.A.

82. *See infra* Part II.B.

83. For example, Americans today do not generally e-mail, text, or post about driving their motor vehicles even though a large percentage of Americans own and drive motor vehicles every day. Similarly, news outlets do not generally report on Sunday family drives, but rather they report on car accidents, police chases, and other out of the ordinary events.

much frequency.[84] To illustrate, the word "pandemic" as used in 2020 and 2021 would likely refer overwhelmingly to COVID-19, unlike the word's use in earlier years.[85] And the choice of corpora may affect the results.[86]

Next, we consider the difficulties with legal corpus linguistics' core methodological tools.[87] One such problem affecting corpus linguistics in all cases, whether in ordinary litigation or constitutional litigation, is the process of categorization.[88] When a search of a corpus reveals hundreds or thousands of hits, how does the researcher determine how each result is to be categorized when there are two or more competing meanings? Are there formal criteria to make that determination—as the methodology's claim to scientific objectivity would seem to require—or is the decision simply subjective?[89] And how does one cull results that contain the words or phrases in question, but are irrelevant to the particular usage or meaning being examined?[90] If these determinations are merely subjective, results among researchers will vary, and those results cannot accurately be called scientific.

A separate problem is called the frequency hypothesis, which essentially posits that the contextual meaning with the greatest number of hits is the objectively "correct" one.[91] But this hypothesis is contrary to what we know about language.[92] Just because a corpus search returns a greater number of hits that are categorized as having one meaning rather than another does not necessarily mean that the word or phrase *always* bears that meaning or that it has that meaning in the particular statute, document, or constitutional provision in question.[93] Any attorney who has drafted a legal

84. *See infra* Part II.C.

85. *See Pandemic*, GOOGLE TRENDS, https://trends.google.com/trends/explore?date=today%205-y&q=pandemic (last visited Aug. 10, 2022) (showing that the number of Google searches for the word "pandemic" increased dramatically once COVID-19 began circulating).

86. *See infra* Part II.E.

87. *See infra* Part III.

88. *See infra* Part III.B.

89. *See* Wilson v. Safelite Grp., Inc., 930 F.3d 429, 446 (6th Cir. 2019) (Stranch, J., concurring) (stating that corpus linguistics requires "highly subjective, case-by-case determinations . . . .").

90. *See id.*

91. Ethan J. Herenstein, Essay, *The Faulty Frequency Hypothesis: Difficulties in Operationalizing Ordinary Meaning Through Corpus Linguistics*, 70 STAN. L. REV. ONLINE 112, 113 (2017).

92. *See* Thomas R. Lee & Stephen C. Mouritsen, *The Corpus and the Critics*, 88 U. CHI. L. REV. 275, 290 (2021) [hereinafter Lee & Mouritsen, *The Corpus and the Critics*].

93. *See id.*

document recognizes that how a word is used in one document may be very different than how it is used in another legal document. This is a lesson that every first-year law student learns. Thus, the very fact that at least *some* instances in the corpora—even if a minority—bear an alternative meaning demonstrates that the majority meaning is *not* necessarily the objectively "correct" one in any given instance or context.[94] So, how does one make the leap from overall frequency to a particularized determination—especially using objective criteria readily replicable by other independent researchers? That is the unanswered question that is fatal to the linguists' claims that corpus linguistics is a superior—or even useful—method of constitutional interpretation.[95]

Finally—and crucially—there is a fundamental difficulty in squaring an approach that relies primarily or exclusively on "nose counting" with the traditional judicial tools used to determine original public meaning.[96] Justice Amy Coney Barrett, before she was nominated to the Supreme Court, was correct when she observed that constitutional interpretation is not "a kind of mechanical exercise where you can look in . . . a corpus linguistics database to generate every answer."[97] What happens if corpus linguistics produces results at odds with accepted understandings and traditions going back to colonial times? For instance, the alleged distinction between the right of the people to bear arms (a) for militia purposes and (b) for private purposes such as self-defense or hunting was utterly foreign to the intellectual universe of the Founders.[98] In fact, claiming that the Second Amendment protects only a "militia" right, and not a private right, is primarily a late twentieth and early twenty-first century contrivance.[99]

94. *See* Ehrett, *supra* note 37, at 56 .

95. *See infra* Part III.A.

96. *See* Ehrett, *supra* note 37, at 53.

97. Dean Reuter et al., *The Federalist Society Presents: Showcase Panel II: Why, or Why Not, Be an Originalist?*, 69 CATH. U. L. REV. 683, 711 (2020).

98. *See* District of Columbia v. Heller, 554 U.S. 570, 588–89 (2008).

99. After enactment of the federal Gun Control Act of 1968, some federal courts upheld the provision banning firearm possession by felons on the basis that no individuals have Second Amendment protection. United States v. Johnson, 497 F.2d 548, 550 (4th Cir. 1974) (disposing of a Second Amendment challenge with a single sentence: "The courts have consistently held that the Second Amendment only confers a collective right of keeping and bearing arms which must bear a 'reasonable relationship to the preservation or efficiency of a well regulated militia'"). Yet the only court case cited was *United States v. Miller*, which made no reference to a "collective" right. 307 U.S. 174, 178 (1939). Instead, as the Supreme Court would later state, "[*Miller's* holding] positively suggests, that the Second Amendment confers an individual right to keep and bear arms

When reviewing the history of arms regulation in the colonies and the early republic, the idea that the Second Amendment was meant to protect solely a military right, and that there was no right to carry arms privately, is jarringly at odds with the then-existing laws. Founding Era laws imposed virtually no restrictions on the ownership or carrying of arms except when arms were misused.[100] Complementarily, there were longstanding, deep traditions of private use of arms for lawful purposes, including for private self-defense.[101]

Perhaps most importantly, the Founders were steeped in, and adopted themselves, the principles of Enlightenment thinkers who based their concepts of rights on natural law and reason.[102] It would have been unthinkable to them that fundamental rights were to be determined by word counts. They viewed such rights as being inherent, God-given natural rights, with the right to protect one's life being the "primary canon in the law of nature," which they believed and stated could not be taken away by any law of civil society.[103]

There are also major practical problems with using corpus linguistics in litigation. If it is introduced into the case by amici or judges rather than the parties—as has generally been the case in Second Amendment and most other cases so far—it presents major risks that parties may be denied any effective ability to respond.[104] When the theory is injected sua sponte by appellate judges, it risks not only depriving parties of the chance to respond, but such use may also be an improper encroachment on the adversarial system, a major tenet of which is that the parties should have the ability to shape their own case.[105] Moreover, it is highly questionable whether judges or attorneys have the expertise to conduct and interpret corpus linguistics

(though only arms that 'have some reasonable relationship to the preservation or efficiency of a well regulated militia')." *Heller*, 554 U.S. at 622.

100. Halbrook, *What the Framers Intended*, *supra* note 74, at 153 (stating that using a firearm to hunt out of season could lead to 20 lashes and restrict the use of guns used for hunting).

101. *Id.*

102. HALBROOK, FOUNDER'S SECOND AMENDMENT, *supra* note 70, at 26–27 (quoting early Americans influenced by Enlightenment philosopher John Locke).

103. John Adams, *Adams' Argument for the Defense: 3–4 December 1770*, FOUNDERS ONLINE [hereinafter John Adams, *Adams' Argument for the Defense*], https://founders.archives.gov/documents/Adams/05-03-02-0001-0004-0016 [https://perma.cc/N9P8-6HHS].

104. *See, e.g.*, *NYSRPA* Goldfarb Brief, *supra* note 28; *see also* State v. Rasabout, 356 P.3d 1258, 1264–65 (Utah 2015).

105. *Rasabout*, 356 P.3d at 1264–65.

research.[106] They are certainly not trained in such research. If corpus linguistics is indeed scientific and a method for discovering objective truths, then it should be subject to the same constraints as other fields that claim empirical validity, using expert testimony in conformance with the rules of evidence and with the courts acting as gatekeepers under *Daubert v. Merrell Dow Pharmaceuticals* principles.[107] Of course, that would only add to the already high cost of U.S. litigation.[108]

A final consideration is the potential for bias in the corpora. While such manipulation may be of less concern in obscure or routine legal cases, it may be of substantial importance in cases involving political controversies, constitutional interpretations, or other socially charged issues.[109] And the incentives to manipulate corpora will increase if partisans know that such manipulation could influence future court decisions.[110]

II. DEFICIENCIES WITHIN THE CORPUS MAY SERIOUSLY DISTORT THE RESULTS PRODUCED

The difficulties with corpus linguistics begin at its very core—with the corpus itself. For multiple independent reasons, the construction of a corpus of texts is subject to inevitable and subjective biases and shortcomings that call into question the scientific validity of any search results arising therefrom.

A. *The "Invisible Common Man"*

Corpus linguistic advocates sometimes present it as the ally of originalism in constitutional adjudication.[111] And certainly, it is part of the task of originalism, as noted by some of these advocates, to try to determine "the meaning the words and phrases of the Constitution would have had, in context, to ordinary readers, speakers, and writers of the English language, reading a document of this type, at the time adopted."[112] These advocates

106. Drakeman, *supra* note 37, at 91.

107. *See* 509 U.S. 579 (1993).

108. *U.S. Litigation Costs Ranked as No. 1 in the World*, CLASSACTION.ORG (May 28, 2013), https://www.classaction.org/blog/us-litigation-costs-ranked-as-no1-in-the-world [https://perma.cc/J5NE-A9KX].

109. Tobia, *Testing Ordinary Meaning*, *supra* note 37, at 778.

110. *See id.* at 750.

111. *See* Lee & Phillips, *supra* note 37, at 289–90 (describing corpus linguistics as a "better tool" for interpreting the Constitution).

112. Phillips, Ortner & Lee, *supra* note 37, at 22 (quoting Vasan Kesavan & Michael

claim corpus linguistics aids this enterprise because corpora such as COFEA "have documents authored both by 'Founders' and by more 'ordinary,' 'average' folk."[113]

But does corpus linguistics really allow us to hear the voices of these ordinary, average folk—that is, the common man? There are strong reasons to believe it does not. Particular corpora may not be representative of speech or popular meaning at a particular time. During many phases of history, writing by educated elites will predominate.[114] Four of the six collections that make up COFEA consist entirely of legal documents, records concerning Congress, or records of national or state conventions.[115] You will not hear the voice of the common man there, only the voices of legal and political practitioners and societal elites.

Of the remaining two collections within COFEA, one—the papers of the Founders Online—comprises documents penned by six of the most prominent men in the colonies and the early republic.[116] The final component of COFEA—the Evans Early American Imprints—contains "advertisements, allegories, almanacs, autobiographies, ballads, bibles, captivity narratives, cookbooks, diaries, elegies, eulogies, hymns, imaginary voyages, narratives, novels, operas, plays, poems, primers, sermons, songs, speeches, textbooks, tracts, travel literature, and many others."[117] While there is more diversity in these than in the legislative and legal materials, the average farmer in western Massachusetts in the 1700s likely did not write novels, poems, or operas, or have his diary published. Even if he did, he would not likely have written about common, ordinary, everyday events such as carrying a firearm (just like we do not email or text routinely about ordinary activities such as brushing one's teeth, drinking coffee, or driving to work).

Stokes Paulsen, *The Interpretive Force of the Constitution's Secret Drafting History*, 91 GEO. L.J. 1113, 1118 (2003)).

113. *Id.* at 31.

114. *See id.* at 66–67 ("[T]he voices of non-elite groups . . . may be underrepresented in corpus results.").

115. These four are the HeinOnline documents, the Statutes at Large, Farrand's *Records*, and Elliot's *Debates*. *Corpus of Founding Era American English (COFEA)*, *supra* note 60.

116. The six men are the first four Presidents (George Washington, John Adams, Thomas Jefferson, and James Madison), together with Benjamin Franklin and Alexander Hamilton. *Corpus of Founding Era American English (COFEA)*, *supra* note 60. It appears that some portion of the papers of John Jay may have been added to COFEA as well. *Id.*

117. *Early American Imprints, Series I: Evans, 1639–1800*, *supra* note 61.

The reality is that none of these corpora genuinely capture the ordinary language spoken at the Founding by people who never recorded their daily actions, such as ordinary workers and tradesmen, frontiersmen and settlers, slaves, illiterate people, and Native Americans.[118] As University at Buffalo School of Law Professor Anya Bernstein has recognized:

> If we use the COFEA to determine what a constitutional provision meant to people at the time of the founding, we posit that the tiny minority this corpus represents—political superstars, lawmakers and government agents, a few legal scholars—is the speech community that gets to determine what the Constitution meant at the time.[119]

Thus, the claim that corpus linguistics allows us to hear the voice of the common man discussing ordinary activities using ordinary language, all to help us determine the original meaning of constitutional language, is largely illusory.

B. *The Existing Corpora Are Incomplete and Do Not Include Many Key Texts*

Advocates of legal corpus linguistics often pretend that the method is based on searches of idealized corpora, which comprehensively contain every relevant text across all relevant time periods and speech communities, allowing the researcher to "examine the use of [a] word . . . through time" and "across language genres, registers, and speech communities to determine whether the word has taken on some specialized meaning. . . ."[120] The existing corpora fall far short of this ideal. Indeed, the corpora most commonly used in the Second Amendment context—COFEA and COEME—do not include many of the historical texts that lawyers and historians, over the last several decades of debate over the right to keep and bear arms, have agreed are *the critical source-texts* for understanding the Second Amendment's original meaning. Whatever the utility of corpus linguistics in other fields, the fact that the best-available corpora do not include these key texts makes the method particularly unreliable in the context of the Second Amendment. In some cases, these omissions result from the chronological limits on the corpora's scope. COFEA, for example, only includes texts from between 1760 and 1799, and while COEME reaches

118. *See* Anya Bernstein, *More than Words*, DUKE CTR. FOR FIREARMS L. BLOG (July 7, 2021), https://firearmslaw.duke.edu/2021/07/more-than-words/ [https://perma.cc/CQJ7-VERT].

119. *Id.*

120. Lee & Mouritsen, *The Corpus and the Critics*, *supra* note 92, at 349.

much further back in time—to 1475—it also ends in 1800.[121] While the 40 years between 1760 and the end of the eighteenth century may be the most relevant for originalists as a matter of abstract theory, they are not the *only* relevant years—and in the Second Amendment context, many key texts were written or published in the early years of the nineteenth century when the Founders were still active in the public scene.[122] For example, scholars have long relied on prominent Founder James Wilson's Lectures on Law as setting forth a widely influential exposition of the Second Amendment.[123] But because this work was published in 1804, it is not included in either COFEA or COEME.[124] Similarly, the fact that Thomas Jefferson regularly referenced pistols, guns, and rifles has been viewed by many as relevant to the Second Amendment's scope. But even though Jefferson was alive during the periods covered by COFEA and COEME, his private papers did not begin to be published until 1829, with many more thorough editions published later.[125] Thus, this important source is not included in corpora that only include documents published through the end of the eighteenth century.[126]

More fundamentally, however, COFEA and COEME are both missing many key texts that fall *within* their chronological coverage, simply because of the incomplete and fragmentary nature of these corpora. As described above, COFEA is principally composed of the records of the drafting and ratification conventions, the papers of a few Founders, some legal texts, and part of a collection of early-American books and pamphlets.[127] As of July 13, 2021, both COEME and COFEA *do not* include several critical examples of "bear arms"—either because they fall outside of the databases these corpora

121. *Corpus of Founding Era American English (COFEA)*, *supra* note 60; *BYU Law Launches First Legal Corpus Linguistics Technology Platform*, BYU L., (Aug. 28, 2020), https://law.byu.edu/news/byu-law-launches-first-legal-corpus-linguistics-technology-platform/ [https://perma.cc/B2EC-NGWA].

122. *See* District of Columbia v. Heller, 554 U.S. 570, 605 (2008) (looking to "a variety of legal and other sources to determine *the public understanding* of a legal text in the period after its enactment or ratification").

123. *See* HALBROOK, THE RIGHT TO BEAR ARMS, *supra* note 76, at 191–92.

124. *See* sources cited *supra* note 121; *see also* HALBROOK, THE RIGHT TO BEAR ARMS, *supra* note 76, at 191–92.

125. THOMAS JEFFERSON, THE MEMOIR, CORRESPONDENCE, AND MISCELLANIES: FROM THE PAPERS OF THOMAS JEFFERSON (Thomas Jefferson Randolph, ed. 1829). *See* Thomas Jefferson Encyclopedia, THOMAS JEFFERSON: MONTICELLO, https://www.monticello.org/research-education/thomas-jefferson-encyclopedia/editions-jeffersons-writings/ [https://perma.cc/3GTT-3662].

126. JEFFERSON, *supra* note 125; Thomas Jefferson Encyclopedia, *supra* note 125.

127. *See supra* note 60 and accompanying text.

draw from or because these underlying databases are themselves simply incomplete—including the following:

Virginia's colonial requirement that "[a]ll persons whatsoever upon the Sabaoth daye shall frequente divine service and sermons both forenoon and afternoon, and all suche as beare armes shall bring their pieces swordes, poulder[,] and shotte."[128]

Maryland's similar colonial statute providing "Noe man able to bear arms to goe to church or Chappell or any considerable distance from home without fixed gunn and 1 Charge at least of powder and Shott."[129]

Roger Sherman's statement, on the floor of the First Congress, that it was "the privilege of every citizen, and one of his most essential rights, to bear arms, and to resist every attack upon his liberty or property, by whomsoever made."[130]

Tench Coxe's statement on the proposed Bill of Rights:

> As civil rulers, not having their duty to the people, duly before them, may attempt to tyrannize, and as the military forces which shall be occasionally raised to defend our country, might pervert their power to the injury of their fellow-citizens, the people are confirmed by the next article in their right to keep and bear their private arms.[131]

James Wilson's statement about the great natural law of self-preservation:

> This law . . . is expressly recognized in the constitution of Pennsylvania. "The right of the citizens to bear arms in the defence of themselves shall not be questioned." This is one of our many renewals of the Saxon

128. *Proceedings of the Virginia Assembly, 1619*, *in* NARRATIVES OF EARLY VIRGINIA, 1606–1625, at 273 (Lyon Gardiner Tyler ed., Barnes & Noble 1959) (1907).

129. *Orders Proclaimed 23 June 1642*, *in* 3 ARCHIVES OF MARYLAND, PROCEEDINGS OF THE COUNCIL OF MARYLAND, 1636-1667, at 103 (William H. Brown ed., 1885).

130. HALBROOK, THE RIGHT TO BEAR ARMS, *supra* note 76, at 195 (quoting 14 DOCUMENTARY HISTORY OF THE FIRST FEDERAL CONGRESS 92–93).

131. Stephen P. Halbrook & David B. Kopel, *Tench Coxe and the Right to Keep and Bear Arms, 1787–1823*, 7 WM. & MARY BILL RTS. J. 347, 367 (1999) (quoting Tench Coxe, *A Pennsylvanian, Remarks on the First Part of the Amendments to the Federal Constitution*, FED. GAZETTE, June 18, 1789).

> regulations. "They were bound," says Mr. Selden, "to keep arms for the preservation of the kingdom, and of their own persons."[132]

Texts relating to Britain's late eighteenth century efforts to disarm Irish Catholics, including a 1795 arms confiscation law that provided authorization for magistrates to seize firearms possessed by any person "not qualified by the Laws . . . to carry Arms."[133]

A statement in parliamentary debate by the Duke of Richmond denouncing orders to disarm citizens that he "considered as a violation of the constitutional right of Protestant subjects, to keep and bear arms for their own defence."[134]

In response, Earl Bathurst discussed "the right of bearing arms for personal defence."[135]

Scholars have long viewed references to "bear arms," which are consistent with an individual-rights view, as critical for determining the original meaning of the Second Amendment.[136] The fact that the two leading Founding-Era corpora do not include many of these references casts serious doubt on the reliability and usefulness of legal corpus linguistics in this context.[137] This in turn calls into serious question the value of the work of those corpus linguistics practitioners who have made claims about the Second Amendment's meaning based on these incomplete corpora.[138]

132. JAMES WILSON, 3 THE WORKS OF THE HONOURABLE JAMES WILSON, L.L.D. 84 (Bird Wilson, ed., Lawbook Exch. 1804). John Selden was an influential seventeenth century English jurist, scholar, and historian. *The Works of John Selden: The First English Legal History*, UNIV. TEX. SCH. L.: TARLTON L. LIBR., https://tarltonapps.law.utexas.edu/exhibits/selden/epinomis.html [https://perma.cc/U3VE-KSHA].

133. *Irish Catholics Licensed to Keep Arms (1704)*, 4 ARCHIVIUM HIBERNICUM, 1915, at 59, 64.

134. 49 LONDON MAG. OR GENTLEMAN'S MONTHLY INTELLIGENCER, 1780, at 467.

135. *Id.* at 468 (distinguishing between the use of firearms for self-defense and the use of firearms without commission from the king).

136. Clayton E. Cramer & Joseph Edward Olson, *What Did "Bear Arms" Mean in the Second Amendment?*, 6 GEO. J.L. & PUB. POL'Y 511, 511 (2008).

137. Because Neal Goldfarb's analysis of the right to bear arms is drawn from COFEA and COEME, for example, the datasets he relied upon do not include any of these key passages. *See NYSRPA* Goldfarb Brief, supra note 28, at 15.

138. *See id*.

C. *Corpora Will Often Be Biased in Favor of Newsworthy Facts and Against Important Traditions*

An additional problem with corpus linguistics is the selection bias of the databases included within the corpus. Imagine a typical database of newspapers. Newspapers report the news, which are generally recent, significant occurrences.[139] An event reported as "news" is necessarily noteworthy in some way—a disaster, say, or an important or unusual event, such as an election or unexpected weather. The proverbial "Cat Stuck Up a Tree" is news. The 10 million cats that return home safely every night will never be news and thus will never be recorded. Event news would be "23 Shot Over the Weekend in Chicago."[140] The headline you won't see is: "300 Million Americans Slept Safely in Their Beds Last Night in Another Wave of Gun Non-Violence." This overwhelmingly larger event will never be recorded as news or in any news database.

This bias in favor of the newsworthy—over the ordinary or routine—has the potential to distort the understanding of the right to keep and bear arms reflected in the corpora used by corpus linguistics practitioners.[141] Instances of ordinary private citizens bearing arms for individual self-protection are not newsworthy and may rarely be recorded.[142] What newspaper is likely to publish a story on each of the thousands of frontiersmen who left the family cabin every morning with musket in hand and used it to shoot game, or carried it with them to protect themselves against a criminal, Native American, or animal attack that never materialized?[143] Bearing or carrying of arms will not tend to be written about

139. *News*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/news [https://perma.cc/6MS3-6SH4].

140. *Chicago Shootings: 23 Shot, 5 Fatally, in Weekend Violence, CPD Says*, ABC7 CHI. (May 8, 2022), https://abc7chicago.com/chicago-shooting-violence-weekend-police/11828104/ [https://perma.cc/Z3MD-JLHX].

141. Plaintiffs-Appellants' Supplemental Brief at 13–14, 16, Jones v. Becerra (Jones v. Bonta), 34 F.4th 704 (9th Cir. 2022) (No. 20-56174) [hereinafter *Jones* Appellants' Supplemental Brief].

142. *Id.* at 15–16 (discussing the unlikelihood of firearms use by farmers and hunters being recorded).

143. During the oral argument in *District of Columbia v. Heller*, Justice Anthony Kennedy specifically noted the importance of firearms for protecting early Americans and their families "against hostile Indian tribes and outlaws, wolves and bears and grizzlies and things like that[.]" Transcript of Oral Argument at 8, 554 U.S. 570 (2008) (No. 07-290), http://online.wsj.com/public/resources/documents/scotus-guns-20080318.pdf [https://perma.cc/Y9KS-WB9V].

in that context.[144] But if the militia is called out, or a bloody battle occurs, or constitutional amendments are proposed, discussed, or adopted, or there is a need to debate and organize the relationship between the federal government and the state governments concerning militias, those things are newsworthy and more likely to be recorded and included in the corpora.[145]

Courts have begun to recognize these fundamental difficulties too. In a Sixth Circuit case, there were dueling concurrences about the propriety of using corpus linguistics to determine the meanings of certain terms used in the federal ERISA statute.[146] One of the concurrences, written by the author of the court's opinion, expressed serious doubts about the utility and practicality of employing corpus linguistics for precisely the reasons identified above:

> [U]sing a corpus linguistics database will likely result in dozens, if not hundreds or thousands, of examples of a term's usage. How should courts make sense of all this information? First, we could count the number of times a term is used in the database (assuming appropriately selected parameters) and then decide that the most frequently used meaning is the ordinary meaning. But that approach would risk privileging the most *newsworthy* connotations of a term over its ordinary meaning.[147]

D. *The Results Reported in Corpus Linguistics Briefs May Be Biased Due to Historical and Temporal Circumstances*

More generally, a corpus may be biased simply because it draws sources from a particular era in time when certain subjects were under public discussion to a greater degree than others.[148] That seems to be the case with the results in the *NYSRPA* linguists' briefs.[149] During the years examined by the linguists (1760–1799), the colonists engaged in at least two major wars—the French and Indian War and the War of Independence—and then the citizens of the new republic drafted, debated, adopted, and amended numerous state constitutions (some of which had right-to-arms provisions)

144. *See Jones* Appellants' Supplemental Brief, *supra* note 141, at 14–15.

145. *Id.* at 13–14.

146. *See* Wilson v. Safelite Grp., Inc., 930 F.3d 429, 438 (6th Cir. 2019) (Thapar, J., concurring); *see also id.* at 445 (Stranch, J., concurring).

147. *Id.* at 445–46 (Stranch, J., concurring) (emphasis added).

148. *See Jones* Appellants' Supplemental Brief, *supra* note 141, at 14–15.

149. *See NYSRPA* Linguists' Brief, *supra* note 28, at 17–27.

and the federal Constitution.[150] Thereafter, the citizenry held ratifying conventions on the Constitution.[151] A number of states and commentators issued demands for a Bill of Rights, and those proposed amendments were discussed and ultimately ratified by the states.[152] All of this prompted intense public discussion of such topics as standing armies and militias composed of the body of the people, as opposed to "select militias."[153] And even after the conclusion of this constitutional ratification process, the First Congress debated and passed the first 10 amendments to the Constitution, and the Second Congress also debated and passed what became the Militia Acts of 1792.[154] Accordingly, many of the results of this discussion would also be recorded in documents associated with the ultimate laws, accounts of legislative debates, and other public records.[155]

By contrast, the individual right to keep and bear arms for private self-defense, unlike discussions about war or militia service, was not being widely debated during this period; it already existed in practice and was simply accepted and assumed.[156] Because there was no proposal to alter, shrink, or abolish the individual, private right to arms, there was no need to discuss publicly or debate that aspect of the right.[157] Thus, a disproportionate count of uses of the word "arms" or phrase "bear arms" in military contexts would not be surprising; indeed that outcome would be expected. But that nose-counting, which reflects only the topics that were being discussed then, does

150. *See Printable Timeline*, LIBR. CONG., https://www.loc.gov/collections/songs-of-america/articles-and-essays/timeline/1759-to-1799/printable-timeline/ [https://perma.cc/3D66-BUXJ].

151. NCC Staff, *The Day the Constitution Was Ratified*, NAT'L CONST. CTR. (June 21, 2022), https://constitutioncenter.org/the-constitution#:~:text=Three%20months%20later%2C%20on%20September,of%20the%2013%20existing%20states [https://perma.cc/H5WG-QR53].

152. *Id.*

153. William S. Fields & David T. Hardy, *The Militia and the Constitution: A Legal History*, MIL. L. REV., Spring 1992, at 1, 33.

154. *Id.* at 23.

155. For example, in Goldfarb's spreadsheets, many results concerning the bearing of arms had to do with what the laws were or should be with respect to, for example, Quakers who were "scrupulous of bearing arms," which people were capable of bearing arms, which ones should be excused from bearing arms, which ones were liable to bear arms, and similar subjects—all matters that would be discussed and publicly debated given the events and history of the Founding period.

156. *See* discussion *infra* Part V.B (regarding the history and tradition of private ownership and carrying of arms, along with the natural rights conceptions of individual self-defense).

157. *See infra* Part V.C.

not nullify the unitary right to arms, and the private right aspect of it, recognized and protected by the Second Amendment.

Accordingly, if a corpus containing sources from this period contains a high number of references to bearing arms in a military context, that may simply be because *that's what people were talking about then*—not because this was the only accepted or widespread meaning of the phrase "bear arms" in the English language in that era.[158] Rather than proving that "bear arms" always means carrying arms militarily, such a result would show only that the phrase appears more often in writings about armies and militias *in a time* when those things were frequently being discussed.[159] That would hardly be surprising, given the historical context of the period in question.

Indeed, our own research in COFEA, the corpus most used in the Second Amendment context, provides clear evidence of this kind of implicit bias.[160] We searched COFEA for all texts containing the word "arms" (including all of the various forms of the word, such as "arm" or "armed") and then analyzed a random subset of 150 concordance lines, by coding each line based on whether the passage related to the use of arms in the military or in militia service, or rather in some non-military context such as self-defense or hunting.[161] The results were overwhelming: 92 percent of passages using "arms" in the relevant sense involved armies, militias, or some other plainly military-related context.[162] Only 2 percent of the relevant passages concerned individual self-defense.[163] We conducted searches for various synonyms of "arms" and obtained similar results: for the word "firearms," 59 percent of the relevant passages concerned the military, compared to 8 percent involving self-defense and 15 percent involving hunting; for "guns," 90 percent arose in the military context, 3 percent involved hunting, and no passages referred to individual self-defense; and for "muskets," 91 percent

158. *See infra* Part V.D.

159. *See* Phillips & Blackman, *supra* note 37, at 627 (citing District of Columbia v. Heller, 554 U.S. 570 (2008)).

160. *See* sources cited *supra* note 42.

161. We obtained the random sample by using an online tool to generate a list of 150 random numbers between 1 and the total number of returns (36,272). We excluded duplicates and irrelevant usages of "arms" (such as those referring to limbs rather than firearms). The data underlying the results reported in the text is available here: https://www.dropbox.com/s/e8rnrobs1aogjng/Smith%20Peterson%20Corpus%20Searches.pdf?dl=0.

162. *Id.*

163. *Id.*

involved military-related use, 1 percent involved self-defense, and another 1 percent involved hunting.[164]

These searches confirm what the basic historical facts discussed above suggest: because of the social context of late eighteenth century America, the texts in the corpus discussing firearms overwhelmingly concern the topic that dominated the national conversation during this period—military matters. It is thus wholly unsurprising that a search for the phrase "bear arms" would return results that disproportionately use the phrase to describe carrying firearms for military purposes; this merely reflects the fact that the vast majority of texts discussing firearms in this particular time and place were focused on the military.[165]

Combined with the faulty assumptions of the frequency hypothesis, discussed below, such bias has the potential to seriously distort the results of any corpus linguistics analysis.[166] Take a word with various shades of meaning, such as "airplane." "Airplane" can refer to military aircraft, civilian jumbo-jets, and single-engine Cessnas (a small piston-powered aircraft).[167] But as an appellate brief has observed:

> One would expect that an analysis of the uses of this word in a corpus drawn from the writings of a nation enduring a period of total war would show that the word was predominantly used to refer to military aircraft—fighters, bombers, and the like—rather than civilian jumbo-jets or single-engine pleasure craft.[168]

By corpus linguistics' lights, that would necessarily lead to the conclusion that the word "airplane" must only mean military aircraft, and that the handful of references to crop dusters and civilian airliners must be disregarded in determining what "airplane" means.[169] "But that is of course nonsense,"[170] the various meanings possessed by a word like "airplane" do

164. *Id.* Each of these searches was conducted according to the same methodology described in the previous footnote, except for the search of "firearms," which only returned 29 concordance lines, all of which were analyzed.

165. *See id.*

166. *See* Drakeman, *supra* note 37, at 90 (stating that certain corpus search techniques "can inadvertently bias the search").

167. *See* Helen Krasner, *Cessna Plane Types and Models [2021]: A Complete Guide*, AVIATOR INSIDER, https://aviatorinsider.com/cessna-plane-types/ [https://perma.cc/J4UF-WPFX].

168. *Jones* Appellants' Supplemental Brief, *supra* note 141, at 15.

169. *See id.*

170. *Id.*

not simply evaporate during those periods when one particular usage of the word is employed more frequently than others because of the historical context.[171]

E. *The Choice of a Particular Corpus May Affect Results*

The *NYSRPA* Linguists' Brief acknowledged that searches for the contextual meaning of a word or phrase in different corpora may yield different results.[172] For example, the brief noted that a search in Google Books in publications from 1760 to 1795 found that "bear arms" was used "in a collective rather than an individual sense" 67.4 percent of the time.[173] This is a much lower percentage than was found for collective or military uses in the Goldfarb *NYSRPA* brief, which searched COFEA and COEME instead of Google Books.[174] Given the various ways just discussed in which any given corpus may be skewed, that inconsistency is not a surprise. But the result is that someone using the corpus linguistics method may well be able to predetermine the result through the choice of *which corpora to search*—destroying the method's claim to scientific objectivity.

Relatedly, searches in a given corpus also may not be reproducible over time because the contents of the corpus, or the design of the search engines used, may change.[175] For example, Professor Baron reports that his search of COEME yielded 1,578 hits for the phrase "bear arms," but because COEME only allows the first 1,000 results to be viewed, he could not examine the other 578.[176] At the time of this writing, however, the BYU search engine interface for both COEME and COFEA allows only 500, not 1,000, results to be viewed.[177] It is unclear to the Authors when this change was made. Moreover, an attempt to replicate Professor Baron's search of COEME during the writing of this Article returned 1,441 total hits for "bear arms," compared to Professor Baron's 1,578. It is unclear if this resulted from a change in the search engine, the corpus, both, or for some other unknown

171. *See id.*

172. *NYSRPA* Linguists' Brief, *supra* note 28, at 21.

173. *Id.* (citing Alison L. LaCroix, *Historical Semantics and the Meaning of the Second Amendment*, PANORAMA (Aug. 3, 2018) [hereinafter LaCroix, *Historical Semantics*], http://thepanorama.shear.org/2018/08/03/historical-semantics-and-the-meaning-of-the-second-amendment/ [https://perma.cc/6AH4-WFRE]).

174. *NYSRPA* Goldfarb Brief, *supra* note 28, at 10.

175. *See* Baron, *Corpus Evidence*, *supra* note 37, at 511 n.5.

176. *Id.*

177. BYU L.: LAW & CORPUS LINGUISTICS, lawcorpus.byu.edu [https://perma.cc/P4BB-VD2M].

reason. But what is clear is that Professor Baron's search, executed just a couple of years ago, seems to be no longer replicable. Without safeguards against changing the contents of the corpora or modifying the manner in which the search engine works, one may question whether it is a suitable tool for the serious work of deciding constitutional cases.

III. CORPUS LINGUISTICS SUFFERS FROM SERIOUS METHODOLOGICAL PROBLEMS AT ITS CORE

As noted, the central premise of corpus linguistics is that if the word or phrase at issue is used in a particular context or with a particular apparent meaning in the majority of instances within a corpus, then this majority meaning must be the sense in which the word or phrase is used in the document, statute, or constitutional provision at issue. This assumption is known as the frequency hypothesis.[178] Thus, the linguists' briefs filed in the *Heller* and *NYSRPA* cases count the number of search results in which "bear arms" (or combinations of "bear" and "arms" near each other) appear in a military context, compare that to the number of results that were non-military in nature, and then declare the former meaning the winner.[179] But the frequency hypothesis that undergirds the entire endeavor is deeply flawed and fundamentally irreconcilable with the way human language works. And even if the hypothesis were plausible, corpus linguistics' claim to scientific objectivity would still be empty, due to the inherently subjective nature of the categorization and counting processes.

A. *The Frequency Hypothesis Is Unsound*

Even if a particular word or phrase—such as "bear arms"—is most often used to convey one meaning, it can also include one or more *other* meanings. Nor does it follow that the meaning of the word in the legal provision at issue is necessarily the same as the "majority" meaning and must exclude other meanings.[180] When there are two meanings, it is a fallacy to conclude that a court must choose between those two meanings and accept only one of them as valid. And, in fact, there is nothing incompatible between the Second Amendment's protection of bearing arms for militia purposes *and* for private purposes—the Founders confirmed that the pre-existing natural right to keep and bear arms "shall not be infringed."[181]

178. *See* discussion *supra* Part I.D.
179. *See* discussion *supra* Part I.A.
180. *See* Herenstein, *supra* note 94.
181. *See* U.S. CONST. amend. II.

Justice Scalia, writing for the *Heller* Court, also found enough of the latter usages to indicate that "bear arms" included a private, non-militia right.[182]

A good example of including both meanings is the Supreme Court's *Muscarello v. United States* decision in 1998.[183] In that case, the issue was whether the statutory term "carries a firearm" was limited to carrying a firearm on one's person or also included carrying a firearm in a vehicle.[184] The Court said:

> [W]e have surveyed modern press usage, albeit crudely, by searching computerized newspaper databases—both the New York Times data base in Lexis/Nexis, and the "US News" data base in Westlaw. We looked for sentences in which the words "carry," "vehicle," and "weapon" (or variations thereof) all appear. We found thousands of such sentences, and random sampling suggests that many, perhaps more than one-third, are sentences used to convey the meaning at issue here, *i.e.*, the carrying of guns in a car.[185]

Even though the Court found that only about a third of the usages involved cars, it used that finding to support its conclusion that "carries a gun" could include carriage in a vehicle.[186] In a similar way, "bear arms" includes bearing or carrying them privately, not just in the militia.[187]

It is simplistic to use corpus linguistics as a primary method of determining what the Second Amendment means when we already have a rich history of what the Founding generation believed about the right to keep and bear arms: we know of the complete legal freedom to carry and bear arms that existed in the early republic; we are aware of the widespread traditions of bearing arms for private purposes; and it is evident that the Founders conceived of their rights as natural rights, not a grant from government. This will all be explored in more detail below. So to call for overruling *Heller* based on word counts alone is an extraordinarily cramped, mechanistic, and almost willfully blind method for interpreting our fundamental constitutional right to keep and bear arms.[188]

182. District of Columbia v. Heller, 554 U.S. 570, 588 (2008) (citing Cramer & Olson, *supra* note 136) (noting that "'bear arms' was frequently used in nonmilitary contexts").

183. 524 U.S. 125, 129–30 (1998).

184. *Id.* at 126–27.

185. *Id*. at 129.

186. *Id*. at 131–32.

187. *Heller*, 554 U.S. at 622.

188. *See id.* at 588–89.

To determine constitutional meaning, counting noses is not sufficient. Quality may be more important than quantity. But, before turning to things like history, tradition, and the ideas of the Founders, a purely linguistic point is in order. We may wish to consider to whom some of the particular noses are attached.

Did the Founders themselves believe that the phrase "bear arms" included, as a matter of linguistic meaning, bearing arms by individuals for private purposes, such as hunting and self-defense? Let us ask them.

Thomas Jefferson (principal author of the Declaration of Independence) and James Madison (principal drafter of the Bill of Rights) were both familiar with using the term "bear arms" in a non-military context, and together they employed that usage to include the individual use of a gun:

> Just four short years before he penned the first draft of the federal Bill of Rights, in October of 1785, James Madison himself presented to the Virginia General Assembly a Bill for the Preservation of Deer drafted by Thomas Jefferson. The bill prohibited the hunting of deer under certain circumstances and ended with a restriction on carrying guns:
>
> > [A]nd, if, within twelve months after the date of the recognizance he shall *bear* a gun out of his inclosed ground, unless whilst performing military duty, it shall be deemed a breach of the recognizance, and be good cause to bind him a new, and every such *bearing* of a gun shall be a breach of the new recognizance and cause to bind him again.[189]

Here, "bearing a gun" included doing so for the private purpose of hunting and was expressly distinguished from doing so "whilst performing military duty."[190]

Tench Coxe, who was a friend of Madison, published an article in a New York newspaper analyzing the proposed Bill of Rights just two days

189. Cramer & Olson, *supra* note 136, at 517–18 (quoting Thomas Jefferson, *A Bill for the Preservation of Deer* (Oct. 31, 1785), *in* 2 THE PAPERS OF THOMAS JEFFERSON 443, 444 (Julian P. Boyd ed., 1950)).

190. *See id.* This example also undermines the claim made in an amicus brief by corpus linguistics professors that "no corpus evidence from the Founding era indicated that 'bear' had an individualized connotation in the context of firearms generally," given the lack of instances of phrases such as "bear a rifle" or "bear a pistol." *NYSRPA* Linguists' Brief, *supra* note 28, at 18. "Bear a gun" in this bill is an example of bear having an individualized connotation in the context of firearms generally, the bill was associated with two of the most prominent founders, and it is included in the COFEA corpus.

after the text was made public in 1789.[191] In what has been called "[p]robably the most comprehensive section-by-section exposition on the Bill of Rights to be published during its ratification period, Coxe's *Remark*s included the following" statement:[192]

> As civil rulers, not having their duty to the people, duly before them, may attempt to tyrannize, and as the military forces which shall be occasionally raised to defend our country, might pervert their power to the injury of their fellow-citizens, the people are confirmed by the next article in their right to keep and bear their private arms.[193]

Coxe here, too, was referring to a private right, not a militia right.[194] Indeed, he envisioned the need for "the people" to oppose with "private arms" any attempts by government to tyrannize, including such attempts by government military forces.[195] As noted by Stephen Halbrook and David Kopel:

> Coxe sent a copy of his essay to Madison along with a letter of the same date. Madison wrote back acknowledging "Your favor of the 18th instant. The printed remarks inclosed in it are already I find in the Gazettes here [New York]." Madison added approvingly that ratification of the amendments "will however be greatly favored by explanatory strictures of a healing tendency, and is therefore already indebted to the co-operation of your pen."[196]

Other Founders besides Madison and Jefferson used the phrase "bear arms" to mean carry arms in a private, individual, non-military capacity.[197] Founder James Wilson was a delegate to the Second Continental Congress, signed both the Declaration of Independence and the U.S. Constitution, helped craft the latter document as a member of the 1787 Constitutional Convention, led the fight for ratification in Pennsylvania, engineered the drafting of the 1790 Pennsylvania Constitution, and thereafter was a law professor at the University of Pennsylvania and a Justice of the United States

191. Halbrook & Kopel, *supra* note 131, at 367 n.104.

192. *Id.* at 367.

193. *Id*. (quoting Tench Coxe, *Remarks on the First Part of the Amendments to the Federal Constitution*, FED. GAZETTE, June 18, 1789).

194. *Id.*

195. *Id.*

196. *Id*.

197. *See, e.g.*, WILSON, *supra* note 132.

Supreme Court.[198] In his law lectures at the University of Pennsylvania, discussing the subject of homicide, he stated that homicide is authorized "when it is necessary for the defence of one's person or house."[199] Basing that principle upon the natural law of self-preservation, Wilson noted that that right:

> is expressly recognized in the constitution of Pennsylvania. "The *right of the citizens to bear arms in the defence of themselves shall not be questioned*." This is one of our many renewals of the Saxon regulations. "They were bound," says Mr. Selden, "to keep arms for the preservation of the kingdom, and of their own persons."[200]

John Adams also used the term "bear arms" with respect to individuals and outside the military context.[201] Following a region-wide famine, Bologna, Italy, was experiencing extensive intra-party strife, murders, and accusations in the late 1200s.[202] So, the people elected a number of new officials who adopted measures that Adams believed were harsh and "inconsistent with liberty."[203] As Adams described it, "In order to purge the city of its many popular disorders, they were obliged to forbid a great number of persons, under grievous penalties, to enter the palace; nor was it permitted them to go about the city, nor to bear arms."[204] Adams used the phrase with respect to "persons," not with respect to bearing arms as part of a military body.[205]

Founder Roger Sherman of Connecticut signed the Articles of Confederation, Declaration of Independence, and Constitution, and served

198. *James Wilson*, BRITANNICA, https://www.britannica.com/biography/James-Wilson-United-States-statesman [https://perma.cc/HR5W-MG3Z] (Sept. 10, 2022).

199. WILSON, *supra* note 132.

200. *Id.* (emphasis added). Wilson cited to Article IX, Section 21 of the 1790 Pennsylvania Constitution, which read in full: "To bear arms. Sect. XXI. That the right of the citizens to bear arms, in defence of themselves and the state, shall not be questioned." *Constitution of the Commonwealth of Pennsylvania – 1790*, PA CONST.: DUQUESNE U. SCH. L., https://www.paconstitution.org/texts-of-the-constitution/1790-2/ [https://perma.cc/ZK8G-ECGA].

201. JOHN ADAMS, 2 A DEFENCE OF THE CONSTITUTIONS OF GOVERNMENT OF THE UNITED STATES OF AMERICA 422 (London 1787).

202. *Id.*

203. *Id.*

204. *Id.*

205. *Id.*

as a representative and senator in the early sessions of Congress.[206] During a congressional debate in 1790, Sherman stated that he:

> conceived it to be the *privilege of every citizen, and one of his most essential rights, to bear arms*, and to resist every attack upon *his liberty or property*, by whomsoever made. The particular states, *like private citizens*, have a right to be armed, and to defend, by force of arms, their rights, when invaded.[207]

Sherman used "bear arms" in reference to the right of an individual citizen to repel attacks on his own liberty or property.[208] The right of states to be armed and to defend against attacks is analogous to the right of citizens to bear arms privately.

So, for Founders Madison, Jefferson, Wilson, Adams, and Sherman, the phrase "bear arms" expressly included carrying arms in a private and non-military context.[209] Besides preparing the working draft of the Bill of Rights, Madison shepherded it through the First Congress.[210] Sherman was appointed to a select committee to consider amendments and even produced his own handwritten draft of proposed amendments.[211]

This understanding of "bear arms" by the Founders was not unique to America but was entirely consistent with usage in the British Isles in the eighteenth century.[212] In early eighteenth century Ireland, Catholics were required to obtain a license in order to carry arms.[213] Some were alleged to be carrying weapons under revoked or falsified licenses.[214] Accordingly, a proclamation was issued by the authorities "to Re-call all Licenses whatsoever to *bear Arms* formerly Granted to any Papist in this

206. Roger Sherman, *The Only Handwritten Draft of the Bill of Rights,* ROGER SHERMAN HOUSE, https://rogershermanhouse.com/2020/07/22/the-only-handwritten-draft-of-the-bill-of-rights-by-roger-sherman/ [https://perma.cc/H8C2-9ABZ].

207. HALBROOK, THE RIGHT TO BEAR ARMS, *supra* note 76, at 195 (quoting 14 DOCUMENTARY HISTORY OF THE FIRST FEDERAL CONGRESS 92–93).

208. *Id.*

209. Cramer & Olson, *supra* note 136, at 517–19.

210. *The Bill of Rights: How Did it Happen?*, U.S. NAT'L ARCHIVES & RECS. ADMIN., https://www.archives.gov/founding-docs/bill-of-rights/how-did-it-happen#:~:text=On%20October%202%2C%201789%2C%20President,the%20%E2%80%9CBill%20of%20Rights.%E2%80%9D [https://perma.cc/FY2S-UG83] (Oct. 7, 2021).

211. Sherman, *The Only Handwritten Draft of the Bill of Rights*, *supra* note 206.

212. *See* 1 WILLIAM BLACKSTONE, COMMENTARIES *139.

213. *See generally Irish Catholics Licensed to Keep Arms*, *supra* note 133, at 59 (listing all "papists" who had licenses for keeping arms in 1704).

214. *Id.*

Kingdom."[215] They could get new licenses, however, and such "Papists having the same, may *bear and keep such Arms* as shall be therein Inserted."[216] The proclamation employed the phrase "carry arms" several times and it was used interchangeably with "bear arms."[217] The use of the phrase "bear arms" referred to individuals, not collectivities, and there is no hint that the licensed individuals would bear those arms for military purposes.[218]

In 1793, an act was passed by the Irish Parliament lifting various restrictions on Catholics, but not the prohibition on possession of arms.[219] There was a carefully defined exception for wealthy Catholics who took an oath of allegiance to the king, but ordinary individuals remained prohibited.[220] And an act of 1795 concerning the city of Dublin "authorized magistrates to search places 'for concealed arms' and to seize firearms possessed by any person 'not qualified by law *to bear* or carry arms.'"[221] The qualification to bear arms applied straightforwardly to individuals, not in relation to military bodies or service.[222]

Following the Gordon Riots in London in 1780:

> [T]he Duke of Richmond, Charles Lennox, regretted the failure of the magistrates, who were in charge of law enforcement, to suppress the riots and the use of the military in their place. He denounced the letters from Lord Jeffrey Amherst, commander-in-chief of the British army, ordering his forces "to disarm the citizens, who had taken up arms, and formed themselves into associations, for the defense of themselves and their properties. The letters he considered as a violation of the constitutional right of Protestant subjects *to keep and bear arms* for their own defense."[223]

215. *Id.* at 64 (emphasis added).

216. *Id*. at 65 (emphasis added).

217. *Id.*

218. *See generally id.*

219. HALBROOK, THE RIGHT TO BEAR ARMS, *supra* note 76, at 85–86 (citing The Catholic Relief Act, 1793, 33 Geo. 3 c. 21, § 1 (UK)).

220. *Id.* at 86 ("[The prohibition] applied to commoners not to persons of sufficient wealth.").

221. *Id.* (quoting An Act for More Effectually Preserving the Peace within the City of Dublin, 1795, 35 Geo. 3 c. 36, § 37 (UK)) (emphasis added).

222. *See id.*

223. *Id.* at 89 (quoting LONDON MAG. OR GENTLEMAN'S MONTHLY INTELLIGENCER, *supra* note 134 (emphasis added)).

The British constitutional right of Protestant subjects to keep and bear arms for their own defense is a purely individual right; the statute in question makes no mention of a militia.[224]

Earl Bathurst, President of the Privy Council, disagreed and "stated the difference between *the right of bearing arms for personal defence*, and that of bodies of the subjects arraying themselves, without a commission from the king; the latter he declared to be unlawful."[225] Bathurst and the Duke of Richmond may have differed as to the right to assemble for armed defense, but they agreed linguistically and constitutionally that there was a right to bear arms for personal defense, independent of any militia connection.[226]

In 1780, the Recorder of London (a judge and legal advisor to the city) issued an opinion on group defense that occurred during the Gordon Riots.[227] That opinion, as quoted in a later publication, stated:

> The right of his majesty's Protestant subjects, to have arms for their own defence, and to use them for lawful purposes, is most clear and undeniable. It seems, indeed, to be considered, by the ancient laws of this kingdom, not only as a *right,* but as a *duty*; for all the subjects of the realm, *who are able to bear arms*, are bound to be ready, at all times, to assist the sheriff, and other civil magistrates, in the execution of the laws and the preservation of the public peace. And that this right, which every Protestant most unquestionably possesses, *individually,* may, and in many cases *must,* be exercised collectively, is likewise a point which I conceive to be most clearly established by the authority of judicial decisions and ancient acts of parliament, as well as by reason and common sense.[228]

Again, we see that "bear arms" can and did mean the right to carry weapons for personal self-defense and for performance of civic duties, apart from any organized military body.[229] Linguistically, the private carrying of

224. Bill of Rights, 1689, 1 W. & M. c.2 (UK).

225. HALBROOK, THE RIGHT TO BEAR ARMS, *supra* note 76, at 90 (quoting LONDON MAG. OR GENTLEMAN'S MONTHLY INTELLIGENCE*, supra* note 134, at 468 (emphasis added)).

226. *See id.*

227. WILLIAM BLIZARD, DESULTORY REFLECTIONS ON POLICE: WITH AN ESSAY ON THE MEANS OF PREVENTING CRIME AND AMENDING CRIMINALS (1785); *Recorder of London*, BLACK'S LAW DICTIONARY (2nd ed. 1910).

228. BLIZARD, *supra* note 227, at 59–60 (emphasis added).

229. *See id.*

weapons was included in the phrase "bear arms" and its variations and, as these quotations reveal, the English constitutional right to arms was considered to be an individual, private right, not a collective, military one.[230]

Critically, of these nine contemporaneous usages of "bear arms" in an individual, not collective, sense, the corpus searches by Goldfarb of COFEA and COEME only picked up *one* of these quotes (the Adams quote, perhaps the least important of them all).[231] Goldfarb classified it as "ambiguous."[232] These results are thus illustrative of several of the issues with corpus linguistics discussed above.[233] The Wilson lecture, for example, is in neither COFEA nor COEME because the lectures were published just outside of the date range of the databases.[234] The Jefferson and Madison bill is in COFEA, but because it uses the phrase "bearing of a *gun*" rather than "bearing of *arms*," it apparently did not turn up in Goldfarb's searches.[235] The remaining sources—the statements by Founders Wilson, Sherman, and Coxe expressly expounding on the constitutional meaning of "bear arms" and the four quotes from Great Britain also discussing the right to bear arms—are simply absent from COFEA and COEME.[236] There are more important texts that have been used to evaluate the meaning of the Second Amendment that are not in Goldfarb's analysis either because they are not in the corpora, or they do not use language that would be picked up by his search terms.[237] In a Ninth Circuit amicus brief, corpus linguistics professors argue that the *Heller* Court was wrong "based on the paucity of the extant historical record," and that, since *Heller*, corpus linguistics researchers "have discovered a voluminous body of evidence reinforcing the collective, militaristic meaning of 'bear arms.'"[238] Perhaps it would be more accurate to say that corpus linguistics has "discovered" a body of evidence of dubious utility and that it has missed key, contemporaneous expositions by

230. *See* LONDON MAG. OR GENTLEMAN'S MONTHLY INTELLIGENCER, *supra* note 134; BLIZARD, *supra* note 227, at 59–60.

231. Goldfarb, *"Bear Arms"* Spreadsheet, *supra* note 45, at tab 2, l. 519.

232. *Id.*

233. *See* discussion *supra* Part II.

234. *See Corpus of Founding Era American English (COFEA)*, *supra* note 60; *BYU Law Launches First Legal Corpus Linguistics Technology Platform*, *supra* note 121.

235. *See* Goldfarb, *"Bear Arms"* Spreadsheet, *supra* note 45.

236. *See* BYU L. & CORPUS LINGUISTICS, lawcorpus.byu.edu [https://perma.cc/P4BB-VD2M].

237. *See* Goldfarb, *"Bear Arms"* Spreadsheet, *supra* note 45.

238. Brief of Corpus Linguistics Professors and Experts as Amici Curiae Supporting Appellees at 14, Young v. Hawaii, 992 F.3d 765 (9th Cir. 2021) (No. 12-17808) [hereinafter *Young* Corpus Linguistics Professors and Experts Brief].

knowledgeable individuals of the meaning of the right to bear arms, proving that it was understood to be an individual right.

Goldfarb has argued "that by the end of the 1600s, *carry* had replaced *bear* as the verb generally used to convey the meaning 'carry.'"[239] That would be news to Samuel Johnson, the most eminent lexicographer of the eighteenth century.[240] In 1755, Johnson provided 38 definitions under the word "bear" as an active verb.[241] Of those, the first six defined "bear" to mean "carry" in various contexts.[242] But even if Goldfarb's contention were true, it would not help answer what the word "bear," *when used*, meant in the eighteenth century. As Goldfarb himself admits, and as Johnson and the examples cited above confirm, "bear" could be used to mean carry then.[243] Indeed, in other contemporary dictionaries, carry is the first listed definition of the verb "bear."[244]

Words can obviously embrace two or more meanings. This phenomenon is so commonplace as to hardly be remarkable. One need only browse through a page in the dictionary to see that virtually any commonly used word has more than one meaning. Consider the words book, fan, hoop, and punt. All have multiple valid meanings. "Book" as a noun can mean a written and bound publication, or as a slang verb can mean to move urgently ("book it"), or to charge a criminal ("book 'em, Danno"), or to make a reservation at a hotel ("book a reservation").[245] "Fan" can refer to the device

239. Brief of Neal Goldfarb as Amicus Curiae in Support of Respondent at 12, N.Y. State Rifle & Pistol Ass'n, Inc. v. Corlett, No. 20-843 (U.S. Feb. 12, 2021) [hereinafter *Corlett* Goldfarb Brief]. This brief was filed in support of granting certiorari. At the time, the case caption listed "Corlett" as the respondent. The name "Corlett" in the caption was later changed to "Bruen" when there was a substituion of governmental parties. But *Corlett* and *Bruen* are the same case, No. 20-843. The *Bruen* Goldfarb Brief addressed the merits of the case after certiorari was granted.

240. Jack Lynch, *The Man Behind the Dictionary*, JOHNSON'S DICTIONARY ONLINE, https://johnsonsdictionaryonline.com/blog/about-samuel-johnson/ [https://perma.cc/LYC6-5KXQ].

241. *To Bear*, JOHNSON'S DICTIONARY ONLINE [hereinafter *To Bear,* JOHNSON'S DICTIONARY], https://johnsonsdictionaryonline.com/1755/bear_va [https://perma.cc/8W5B-JFH9].

242. *Id.*

243. *See Corlett* Goldfarb Brief, *supra* note 239 at 9; *To Bear*, JOHNSON'S DICTIONARY, *supra* note 241.

244. *See* AN UNIVERSAL ETYMOLOGICAL DICTIONARY (Nathan Bailey ed., 22d ed. 1770); 2 JOHN ASH, THE NEW AND COMPLETE DICTIONARY OF THE ENGLISH LANGUAGE (2d ed. 1795); THOMAS SHERIDAN, A COMPLETE DICTIONARY OF THE ENGLISH LANGUAGE (6th ed. 1796).

245. *Book*, RANDOM HOUSE WEBSTER'S UNABRIDGED DICTIONARY (2d ed. 2001).

for blowing air or an enthusiast of some person or activity.[246] "Hoop" can denote a circular band to hold together the staves of a barrel or cask, or it can refer to a basketball hoop (or the plural "hoops" can refer to basketball generally).[247] "Punt" can refer to a shallow-draft boat propelled by a long pole, or the act of kicking an American football after dropping it.[248] These multivocal words ordinarily cause no trouble because speakers or readers conversant with a language can discern from *context* which particular meaning is being used in a given instance. Readers familiar with the English language, for example, know from context that in Shakespeare's famous line "I wasted time, and now doth time waste me,"[249] the words "waste" (and "wasted") are being used to express two distinct and different meanings, a feature of language that Shakespeare is known for exploiting to great literary effect.[250]

Not only do most words have more than one accepted meaning, but importantly, the applicability of any given meaning to a particular use of the word cannot be determined simply by counting words. In any random sample of modern American-English discourse—much less a sample that may be biased in the ways discussed in the previous section—the word "hoops" is more likely to mean basketball than circular bands for holding barrel staves together.[251] "Punt" is more likely to mean the act of kicking a football than a shallow-draft boat because modern discourse is much more likely to be about basketball and football than barrel components or boats floating near Oxford.[252] So too, the evidence cited by proponents of legal corpus linguists demonstrates at most that the phrase "bear arms" is *sometimes*, or even perhaps *most often*, used in a military context—not that it is limited to that context.[253]

A concurring opinion by Justice Samuel Alito in 2021 makes a similar point.[254] In debating the use of the series-qualifier canon—the presumption that a modifier at the end of a "parallel construction that involves all nouns or verbs in a series . . . normally applies to the entire series"—Justice Alito

246. *Fan*, RANDOM HOUSE WEBSTER'S UNABRIDGED DICTIONARY (2d ed. 2001).

247. *Hoop*, RANDOM HOUSE WEBSTER'S UNABRIDGED DICTIONARY (2d ed. 2001).

248. *Punt*, RANDOM HOUSE WEBSTER'S UNABRIDGED DICTIONARY (2d ed. 2001).

249. WILLIAM SHAKESPEARE, RICHARD II act 5, sc. 5, l. 50.

250. *Double Entendre*, LITERARY DEVICES, https://literarydevices.net/double-entendre/ [https://perma.cc/46FD-LA96].

251. *See Hoop*, *supra* note 247.

252. *See Punt*, *supra* note 248.

253. *See, e.g.*, Baron, *supra* note 37, at 510.

254. Facebook, Inc. v. Duguid, 141 S. Ct. 1163, 1173–75 (2021) (Alito, J., concurring).

noted that the validity of that canon as a genuine description of linguistic usage "is an empirical question," and suggested that "a corpus linguistics analysis" might show whether "the percentage of sentences" using series qualifiers in the way described by the canon is "high enough to justify the canon."[255] But when it comes to determining whether a particular sentence's meaning accords with the canon, Justice Alito explained, judges must ask how "a reasonable reader, fully competent in the language, would have understood the text at the time it was issued," not simply apply "inflexible rules."[256] When Matthew 26:75 says that St. Peter "went forth and wept bitterly," Justice Alito observed, "[n]o one familiar with the English language would fail to understand" that "bitterly" qualifies "wept" but "does not suggest that he went forth bitterly," "even though its meaning is contrary to the one suggested by the series-qualifier canon."[257] Accordingly, no matter how a corpus linguistic analysis of patterns of usage "broke down," Justice Alito concludes, "that is not what matters," since a court's job is to determine "the sense of the matter" not engage in "a technical exercise . . . [of] mechanically applying a set of arcane rules."[258]

The frequency hypothesis suffers from other problems as well. For example, there is the difficulty of determining what frequency of meaning—if any—suffices for one to conclude that that meaning must apply to the particular example in question. "Is it sufficient if 99 percent of instances go one way but the alternative meaning is nonetheless used in the remaining one percent? 85 percent? 50.1 percent? A plurality when there are several different available meanings?"[259] After all, as just shown, if the search results contain even a few of the less frequent usages, that usage may well be included in the one the Framers or ratifiers intended—and indeed, as with the Second Amendment, there may be other, non-corpus evidence to indicate that was their likely intent or understanding.[260]

255. *Id.*

256. *Id.* at 1175 (quoting ANTONIN SCALIA & BRYAN A. GARNER, READING LAW: THE INTERPRETATION OF LEGAL TEXTS 160 (2012)).

257. *Id.* at 1174 (quoting SCALIA & GARNER, *supra* note 256, at 150).

258. *Id.* at 1175.

259. *Jones* Appellants' Supplemental Brief, *supra* note 141, at 13.

260. The frequency hypothesis may also not correspond to how the public would understand a word or phrase in the Constitution: "'How often a term appears in newspapers, magazines, or other publications is a separate inquiry from how members of the public would understand that term when used in a statute' or the Constitution." Appellees' Supplemental Brief in Response to the Court's March 26, 2021 Order at 18, Jones v. Becerra (Jones v. Bonta), 34 F.4th 704 (9th Cir. 2021) (No. 20-56174)

Even where a usage does not occur *at all* in a particular corpus, other evidence may conclusively demonstrate that it is the correct one in context. For example, "in some corpora, there are no examples of airplanes referred to as 'vehicles.'"[261] Yet survey evidence shows, unsurprisingly, that ordinary language users consider an airplane to be a "vehicle" by large margins.[262] Similarly, "[t]he blue pitta is a bird found in Asia but not North America. It is no less a bird, and we are no less comfortable calling it a bird just because it does not appear in corpora of American English."[263]

Responding to these examples, in an amicus brief proffered to but rejected by the Ninth Circuit, Goldfarb argued "that it is doubtful that questions such as whether a blue pitta is a bird or an airplane is a vehicle present issues of word meaning [at] all," because "it makes little sense to say that *bird* has a different meaning for each avian species, or that *vehicle* has separate meanings for cars, trucks, airplanes, and whatever else it might be applied to."[264] But the same, of course, could be said for "bear arms" once it has been determined—as Goldfarb concedes—that at the Founding the phrase was used to describe both carrying arms in a military or militia setting and for personal use.[265] Thus, by Goldfarb's own logic, it makes little sense to say that "bear arms" has a different meaning depending on the purposes for which arms are borne.[266] And if that is the case, then Goldfarb's entire critique of *Heller* falls apart, and tools other than corpus linguistics—such as history and tradition—are needed to determine the scope of the Second Amendment right.[267]

[hereinafter *Jones* Appellees' Supplemental Brief] (quoting Hessick, *supra* note 37, at 1509).

261. Kevin P. Tobia, *The Corpus and the Courts*, UNIV. CHI. L. REV. ONLINE (Mar. 5, 2021), https://bit.ly/3sgE1WB [https://perma.cc/P8RL-ZXGC].

262. Tobia, *Testing Ordinary Meaning*, *supra* note 37.

263. Solan & Gales, *supra* note 32, at 1315 (citations omitted).

264. Motion of Neal Goldfarb for Leave to File a 2,948-Word Reply Brief as Amicus Curiae Supporting Neither Party, and for Suspension of Circuit Rule 29.1 to Permit Such Leave to Be Granted at 4 n.11, Jones v. Bonta, 34 F.4th 704 (No. 20-56174) [hereinafter *Jones* Goldfarb Brief]. *See* Order, *Jones*, 34 F.4th 704 (No. 20-56174). The 9th Circuit also denied Goldfarb's motion to participate in oral argument. *See id*.

265. *NYSRPA* Goldfarb Brief, *supra* note 28, at 21.

266. *Id.*

267. For similar reasons, Professor Baron attacks a straw man when he says that "[t]oday's Supreme Court majority may cling to the myth that *bear arms* has nothing to do with soldiering." Dennis Baron, *Corpus Linguistics, Public Meaning, and the Second Amendment*, DUKE CTR. FIREARMS L. BLOG (July 12, 2021) [hereinafter Baron, *Corpus Linguistics, Public Meaning, and the Second Amendment*],

University of Notre Dame Law School Professor Donald Drakeman has strongly urged that interpretation of the results to determine "objective public meaning" requires "a *sound theory* for supporting only one of two or more competing meanings if more than one usage has been identified in the dataset."[268] Professor Drakeman contends:

> We currently lack a theoretical justification for the rule that constitutional meaning must be equated with the most frequent usage. . . . Constitutional corpus linguistics theorists employing the frequency thesis need to construct a persuasive argument for why constitutional meaning cannot be found in bona fide, well-attested usages simply because another usage occurs more frequently in documents having nothing to do with the Constitution.[269]

Rather than *defending* the frequency hypothesis, two leading advocates of legal corpus linguistics have now *disavowed* any "approach that merely seeks to determine the most common sense of a word and then labels that sense the ordinary meaning."[270] In the same article, the authors expressly noted that they "do not endorse the notion that any 'use that is not reflected' in a corpus (or is even only uncommonly reflected) cannot fall within the 'ordinary meaning' of a studied term."[271]

Goldfarb, for his part, has defended the frequency hypothesis by arguing that if courts are looking for a term's ordinary meaning, that ordinary meaning will be reflected by "what happens most of the time."[272] But as we have explained extensively, there are a multitude of factors independent of meaning that could affect the frequency with which a particular term shows up in a particular corpus.[273] Thus, even on the wooden view posited by Goldfarb, simply counting hits for what "happens most of the time" in a corpus would not establish a word's ordinary meaning.[274]

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https://firearmslaw.duke.edu/2021/07/corpus-linguistics-public-meaning-and-the-second-amendment/ [https://perma.cc/7GQM-WXBE]. That certainly was not the *Heller* majority's view, as the Court expressly acknowledged that bear arms had "various meanings (*one of which is military*)." District of Columbia v. Heller, 554 U.S. 570, 589 n.11 (2008) (emphasis added).

268. Drakeman, *supra* note 37, at 85.

269. *Id.* at 97–98.

270. Lee & Mouritsen, *The Corpus and the Critics*, *supra* note 92, at 342.

271. *Id.*

272. *Jones* Goldfarb Brief, *supra* note 264, at 3.

273. *See* discussion *supra* Part II.

274. *See Jones* Goldfarb Brief, *supra* note 264, at 3.

The frequency hypothesis—that if one meaning of a word or phrase is numerically dominant, then it must have that meaning in the document under examination—is a most shaky hypothesis and lacks the force to overturn centuries-old understandings of fundamental constitutional principles.

B. *Because the Categorization of Corpus Linguistics Results Is Subjective, the Supposed Scientific Conclusions Will Often Not Be Reproducible*

In addition to the fundamental difficulties with the frequency hypothesis, the methods used in legal corpus linguistics to determine which usage of a word or phrase is the more frequent one are themselves beset by problems that vitiate their claim to scientific objectivity.

Consider the difficulties inherent in arriving at the relevant universe of instances of a word or phrase in question. Depending on the particular search, frequently there will be results that are simply irrelevant to the question to be determined in the legal dispute at hand.[275] For example, more broadly worded searches including the words "bear" and "arms" may return results involving heraldry, where "arms" is used in connection with coats of arms. Results could even be a product of zoology or hunting, including literally the arms of a bear. But determining which results are relevant will often be subjective and discretionary.[276] How are these to be culled out in a way that is replicable? As noted by Judge Jane Branstetter Stranch's concurrence in *Wilson v. Safelite Group Inc.*, irrelevant results might "require the court to perform this culling process itself. . . . But by what metric would we make that choice? . . . Such choices would require highly subjective, case-by-case determinations about the import and relevance of a given source. Textualists have long advised us to forgo that interpretive method."[277] In addition, how does one determine alleged duplicates? If a single *Associated Press* story appears in a thousand newspapers or websites,

275. *See* Wilson v. Safelite Grp., Inc., 930 F.3d 429, 445–46 (6th Cir. 2019) (Stranch, J., concurring).

276. *Id.*

277. *Id.* at 446 (quoting Conroy v. Aniskoff, 507 U.S. 511, 519 (1993) (Scalia, J., concurring) ("The legislative history of [this] Act contains a variety of diverse personages, a selected few of whom—its 'friends'—the Court has introduced to us in support of its result. But there are many other faces in the crowd, most of which, I think, are set against today's result.")). As Judge Stranch commented, "Legislative history tells us, at a minimum, how some of the statute's authors understood a term; corpus linguistics does not offer even that insight." *Id.*

is that a single occurrence or a thousand?[278] Depending on the issue, one might make a case for either approach.

Probably the central difficulty is in determining the criteria that are used to categorize the results once they have all been collected. If it is merely the judgment of the researcher, results will be subjective and will not be able to be duplicated even if a second researcher entered the exact same search terms.[279] Even with voluminous amounts of so-called empirical and objective data available, corpus linguistics necessarily requires the intervention of subjective human judgments to categorize it. Neither the *NYSRPA* Linguists' Brief nor the *NYSRPA* Goldfarb Brief revealed any criteria other than Goldfarb's and Professor Baron's subjective intuition regarding how the search results were classified as military or non-military.[280]

As noted above, the *NYSRPA* Linguists' Brief quotes from a study that searched Google Books for "bear arms," and found that "bear arms" was used 67.4 percent of the time in a collective rather than an individual sense:[281]

> This includes using "bear arms" in a collective sense with a plural subject (*e.g.,* "Slaves were not permitted to *bear arms*"), as well as using the phrase in a collective sense with a singular subject (*e.g*., "when a slave was made free, a spear was put into his hand, and he was thenceforward permitted to *bear arms*, and subjected to military services").[282]

This illustrates the problem of categorization. Here the researcher chose to categorize "Slaves were not permitted to *bear arms*" as having a "collective" meaning.[283] Why? What is it about this sentence that carries a collective meaning? It can just as easily be read to mean that individual slaves were not permitted to carry firearms. The plural subject does not make the right or action a collective one. The sentence "the fourteen defendants appearing

278. The AP actually has about 1,300 members and affiliates. ASSOCIATED PRESS & SUBSIDIARIES, 2017 CONSOLIDATED FINANCIAL STATEMENTS 6, https://www.ap.org/about/annual-report/2017/ap-financials-2017.pdf [https://perma.cc/VF6U-EAG2].

279. Indeed, it may be the case that the same researcher might not be able to replicate their own results years later as they may categorize results differently in 2025 than they did in 2021.

280. *See* sources cited *supra* note 28.

281. *NYSRPA* Linguists' Brief, *supra* note 28, at 21 (citing LaCroix, *Historical Semantics*, *supra* note 173).

282. *Id*. at 21–22 (quoting LaCroix, *Historical Semantics*, *supra* note 173).

283. *Id.*

before Judge Jones last Friday pled guilty" does not mean they did so collectively.

The *NYSRPA* Linguists' Brief provides further examples of this difficulty. The brief states that of the seven "non-military" hits, all but one "are at best ambiguous, as they appear in contexts suggesting a military or quasi-military sense of bearing arms."[284] Here are three of these hits:

> "That no person shall use or *bear any Arms* within London, and the Suburbs, or in any place between the said City and Pallace of Westminster, nor in no other part of the Pallace by Land or by Water, except such of the Kings people, as he shall appoint to keep the Kings peace." [1657].[285]

What makes this passage "military or quasi-military" in nature? The subject here is singular ("person"), and this paragraph straightforwardly describes a ban on using or bearing arms in specified localities.[286] There is no hint of collective or military action.

"'[The 1689 Bill of Rights] asserted the freedom of election to parliament, the freedom of speech in parliament, and the right of the subject to *bear arms*, and to petition his sovereign' [1771]."[287] This quote refers to the right of the subject (singular) to bear arms, along with several other civil liberties. There is nothing collective about it, and again, there is no mention of military action, actual or proposed.

> That every Person who will go for *Ireland* on these Conditions, shall out of his first share of Money, buy for himself and every Relation and Servant that he carries with him (who are able to *bear Arms*,) a good Musket, or Case of Pistols for the defence of his Family.[288]

284. *NYSRPA* Linguists' Brief, *supra* note 28, at 19 (quoting Baron, *Corpus Evidence*, *supra* note 37, at 512); *see also Bruen* Linguists' Brief, *supra* note 30, at 16.

285. *NYSRPA* Linguists' Brief, *supra* note 28, at 20; ROBERT COTTON, AN EXACT ABRIDGEMENT OF THE RECORDS IN THE TOWER OF LONDON: FROM THE REIGN OF KING EDWARD THE SECOND, UNTO KING RICHARD THE THIRD 51 (William Prynne ed., 1657), https://quod.lib.umich.edu/e/eebo/A34712.0001.001/ [perma.cc/WBX9-FHE9].

286. *NYSRPA* Linguists' Brief, *supra* note 28, at 19 (quoting Baron, *Corpus Evidence*, *supra* note 37, at 512).

287. 2 OLIVER GOLDSMITH, THE HISTORY OF ENGLAND: FROM THE EARLIEST TIMES TO THE DEATH OF GEORGE II 95 (1814) (emphasis added).

288. RICHARD BUCKLEY, THE PROPOSAL FOR SENDING BACK THE NOBILITY AND GENTRY OF IRELAND: TOGETHER WITH A VINDICATION OF THE SAME 6 (1690) (emphasis added),

Here, the subject of the sentence is singular, and the express purpose is for "defence of his Family."[289] Defending one's family is generally not considered military in nature, and the persons to be armed are only the individual and his immediate household.

An amicus brief filed by corpus linguistics professors in *Young v. Hawaii*[290] in the Ninth Circuit further illustrates the difficulty.[291] The professors reproduce five "representative examples" of the term "keep arms," "refer[ring] to weapons for use in the military or militia."[292] But two of the sources plainly also contemplate the term "keep arms" referring to use for personal defense:

> "[Freemen] were bound to follow their Lords to the Wars, and many were Voluntiers, yet it seems all were bound upon call under peril of Fine and were bound to *keep Arms* for the preservation of the Kingdom, their Lords, *and their own persons*."
>
> "[Protestants] were bound to *keep Arms* and Defend *themselves* and their Country from the power of the Popish Natives which were then Armed against them."[293]

So out of those five "representative" quotes that are classified as military or militia, at least two refer to possession of arms for individual defense. Classifying these sources as militia or military is questionable at best.

Even results that speak of bearing arms for war or warlike purposes do not necessarily connote a military meaning. "Phrases like 'bear a gun' or 'bear arms' are not military-only just because they are sometimes used near words like 'war.' In the usage of the time, 'war' included personal self-defense."[294] John Locke, for example, when discussing what "makes it lawful . . . to kill a thief" in self-defense, reasoned that "it is lawful for me to treat him as someone who has put himself into a state of war with me . . . ."[295] As

https://quod.lib.umich.edu/e/eebo/A30010.0001.001/1:3?rgn=div1;view=fulltext [https://perma.cc/8MKJ-DRS3].

289. *See id.*

290. 992 F.3d 765 (9th Cir. 2021).

291. *Young* Corpus Linguistics Professors and Experts Brief, *supra* note 238.

292. *Id.* at 21–22.

293. *Id*. (second emphasis added).

294. Brief of Amici Curiae Professors of Second Amendment Law, et al. in Support of Appellant and Reversal at 10, Young v. Hawaii, 992 F.3d 765 (9th Cir. 2021) (No. 12-17808).

295. JOHN LOCKE, SECOND TREATISE OF GOVERNMENT § 18 (1690).

explained below, Locke's views were very influential in Revolutionary America.

The problem of categorization is further demonstrated by comparing the results of the searches on which the *NYSRPA* Goldfarb Brief and the *NYSRPA* Linguists' Brief were based. Goldfarb stated:

> The search looked for all instances of the noun *arms* occurring within four words of any form of the verb *bear* (*bear*, *bears*, *bearing*, etc.). After duplicating the results and filtering out lines that did not involve either of the senses that are relevant here, there remained, between COFEA and COEME, 531 concordance lines.[296]

Goldfarb limited his search in both corpora to 1760 through 1799, the period covered by COFEA.[297] He has posted spreadsheets of his results online.[298] According to Goldfarb, 28 of the 531 concordance lines were either ambiguous or consistent with *Heller*'s conclusion that "bear arms" can mean to carry arms outside of any military context.[299]

In the article on which the *NYSRPA* Linguists' Brief was mostly based, by contrast, Professor Baron reports that the phrase "bear arms" occurs about 310 times in COFEA.[300] COEME, Professor Baron states, "contains 1,578 instances of the phrase."[301] Professor Baron's COEME search apparently covered all of the seventeenth and eighteenth centuries, unlike Goldfarb's.[302] But, Professor Baron notes, "Since COEME only returns a maximum of 1,000 hits for a collocation search, I was not able to examine 578 of the 1,578 citations with *bear arms*."[303] Thus, in the COFEA and COEME corpora:

> [Professor Baron] was able to examine about 1,300 of these instances in context. Correcting for estimated duplicates, roughly 900 separate

296. *NYSRPA* Goldfarb Brief, *supra* note 28, at 21.

297. *Id.*

298. Neal Goldfarb, Corpus Data Regarding re "Keep and Bear Arms" (online dropbox) (available at https://www.dropbox.com/sh/r0y0kgdc63rxtjd/AAC_Ye2FJVBhoCk2H8cwMv9oa?dl=0) (July 31, 2019).

299. Goldfarb, *"Bear Arms"* Spreadsheet, *supra* note 45, tab 2; *NYSRPA* Goldfarb Brief, *supra* note 28, at 21.

300. Baron, *Corpus Evidence*, *supra* note 37, at 510.

301. *Id.*

302. *See generally id.*

303. *Id*. at 511 n.5.

> occurrences of *bear arms* before and during the [F]ounding [E]ra refer to war, soldiering, or other forms of armed action by a group rather than an individual. Seven were either ambiguous or carried no military connotation.[304]

In sum, Professor Baron examined roughly 900 occurrences, including all of the corpora and time periods searched by Goldfarb, and found seven usages that were clearly or arguably non-military.[305] Goldfarb examined only 531 usages and found 28 that were clearly or arguably non-military.[306] In other words, Goldfarb found those usages four times as frequently as Professor Baron did when examining search results consisting of about half the number that Professor Baron reviewed—a difference of roughly eight to one. The results suggest that Professor Baron was far less likely to subjectively categorize occurrences as clearly or arguably non-military than Goldfarb was in his subjective categorizations.

The categorizations made by the *NYSRPA* Goldfarb Brief and the *NYSRPA* Linguists' Brief thus demonstrate the inherent problems with using corpus linguistics to determine the meaning of constitutional language. Since subjective judgment is used to cull allegedly irrelevant results and to categorize supposedly relevant results, it would be virtually impossible for the linguists' findings to be replicated—let alone effectively challenged—by anyone who might disagree with the categorizations they made.[307]

Professors James Phillips and Josh Blackman have heavily criticized the Goldfarb briefs and the published work by Professor Baron that forms the basis for the linguists' briefs.[308] They identify several "best practices" in legal corpus linguistics, which include using multiple independent coders (double blind coding) to categorize results, and publishing the data from the

304. *Id.* at 510–11.

305. *Id.*

306. *See* Goldfarb, *"Bear Arms"* Spreadsheet, *supra* note 45.

307. Subjective categorization, particularly by a single individual, also raises the distinct possibility of confirmation bias, creating the "tendency to test one's beliefs or conjectures by seeking evidence that might confirm or verify them and to ignore evidence that might disconfirm or refute them." ANDREW M. COLMAN, *Confirmation Bias*, A DICTIONARY OF PSYCHOLOGY (Oxford Univ. Press 3d ed. 2009). In other words, the "bias . . . helps to maintain prejudices and stereotypes." *Id.* If one's thesis—or mere belief—is that the Second Amendment protects only a collective right, the chance that one would categorize a given usage as a collective one probably increases. A similar confirmation bias could exist for one who believes that the right is individual.

308. *See* Phillips & Blackman, *supra* note 37, at 647–54.

corpus searches and the analyses of that data.[309] They particularly note that Professor Baron and Goldfarb apparently coded their own results, which raises the possibility of coding bias (which need not be conscious).[310] While Goldfarb published his results, as we have noted, Professor Baron "did not publish his data sets" and "did not comply with any of the best practices discussed above."[311] Professors Blackman and Phillips also describe what they consider to be specific methodological errors in Professor Baron's research and Goldfarb's results.[312]

The Second Amendment declares that "the right of the people to keep and bear Arms, shall not be infringed."[313] Even the *NYSRPA* Goldfarb Brief admits that the right of the people to *keep* arms refers to a private right.[314] So, the *NYSRPA* Goldfarb Brief then shifts gears and argues, to a point,[315] that the "right of the people" to "bear arms" really means "the right to serve in the militia."[316] This reasoning is critically flawed.[317]

As an initial matter, every place in the Bill of Rights where the term "right of the people" is used, it plainly means the entire people, not a portion such as the organized militia, and this has long been understood.[318] The use

309. *Id.* at 638–39.

310. *See id.* at 640, 642.

311. *Id*. at 642.

312. *Id*. at 641–43, 647–53. They also criticized the findings presented in LaCroix, *Historical Semantics*, *supra* note 173, observing that this "research does little to address the full scope of *Heller*'s linguistic analysis." Phillips & Blackman, *supra* note 37, at 646.

313. U.S. CONST. amend. II.

314. *NYSRPA* Goldfarb Brief, *supra* note 28, at 17 ("The corpus data for *keep* is consistent with how the word was interpreted in *Heller*.").

315. The Goldfarb Brief itself does not really contain much argument on this point, referring instead to a blog post that Goldfarb himself has made on this subject. *NYSRPA* Goldfarb Brief, *supra* note 28, at 23–24 (citing Neal Goldfarb, *Corpora and the Second Amendment: "The Right (of the People) to Bear Arms"*, LAWNLINGUISTICS (July 16, 2019) [hereinafter Goldfarb, *Corpora and the Second Amendment*], https://lawlinguistics.com/2019/07/16/corpora-and-the-second-amendment-the-right-of-the-people-to-bear-arms/ [perma.cc/T4Ky-RP7G]).

316. *Id.* at 16 ("[T]he right to bear arms was most likely understood to mean the right to serve in the militia.") (emphasis omitted).

317. At this point, Goldfarb is no longer engaged in corpus linguistics but is merely advancing ordinary legal arguments.

318. In *United States v. Verdugo-Urquidez*, the Court observed that "'the people' seems to have been a term of art employed in select parts of the Constitution." 494 U.S. 259, 265 (1990). The Court determined that "the people" as used in the Bill of Rights means the "class of persons who are part of a national community or who have otherwise

of "right of the people" in the Second Amendment should therefore be interpreted the same way under the interpretive canon known as the "presumption of consistent use"; that is, that a word or phrase should be interpreted to mean the same thing throughout a legal document.[319] The blog post relied on in the *NYSRPA* Goldfarb Brief tries to get around the presumption of consistent use, but it does not succeed. The post avers:

> But if one's starting point is that the right to bear arms was understood as a right to serve in the militia, interpreting the use of *the people* in the Second Amendment consistently with its use elsewhere in the Constitution would generate dissonance between the different components of the Second Amendment itself. In this situation, something's got to give, and I think that what has to give is the presumption of consistent use.[320]

developed sufficient connection with this country to be considered part of that community." *Id.* Just as in the First and Fourth Amendments, the "right of the people" in the Second Amendment extends to all members of that national community, not just those who are able-bodied, male, and between certain specified ages so as to be included in the organized militia. *See id.* (expanding on the definition of "the people" and applying it across all demographics). "[T]he right of the people peaceably to assemble, and to petition the Government for a redress of grievances," U.S. CONST. amend. I, and "[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures," U.S. CONST. amend. IV, are individual rights that extend to all members of the national community, individuals may bring suits to enforce them, and depriving an individual of these rights violates the Constitution. The same is true for "the right of the people" guaranteed by the Second Amendment. U.S. CONST. amend. II. While Goldfarb has done a corpus linguistics analysis that purports to find that "the right of the people was most often used to denote rights that were collective in that their exercise required the concerted action of multiple people," surely the most relevant "corpus" for these purposes is the Bill of Rights itself, and "right of the people" in that document has long been understood to denote individual rights. *Jones* Goldfarb Brief, *supra* note 264, at 11. *See* William Baude, Heller *Survives the Corpus*, DUKE CTR. FOR FIREARMS L. BLOG (July 9, 2021), https://firearmslaw.duke.edu/2021/07/heller-survives-the-corpus/ [perma.cc/3S42-62FF] ("While there are examples in the corpus of a 'right of the people' being used collectively, *Heller's* chief reason for rejecting such a reading was constitutional context: other provisions of the Constitution (viz, the First and Fourth Amendments) use the 'right of the people' to refer to an individual right, so it is likely that the Second Amendment did so as well. This is a good example of the limits to legal corpus linguistics analysis. The use of a phrase in other contexts cannot do much to rebut a claim made from the context of a particular document.").

319. UNIV. OF HOUSTON L. CTR., CANONS OF CONSTRUCTION 2 [hereinafter CANONS OF CONSTRUCTION], https://www.law.uh.edu/faculty/adjunct/dstevenson/2018Spring/CANONS%20OF%20CONSTRUCTION.pdf [perma.cc/59H2-MYGT].

320. Goldfarb, *Corpora and the Second Amendment*, *supra* note 315.

This argument fails for at least four reasons. First, for the purported "dissonance" to occur at all, one must first accept that "the right to bear arms was understood as a right to serve in the militia"—the very proposition that is at issue. Goldfarb's argument is thus manifestly circular and proves nothing.[321]

Second, why say "right of the *people* to keep and bear arms" if "right to serve in militia" was the intended meaning?[322] If the drafters meant a right to serve in the militia (unlikely, since militia service was more of a duty than a right), they surely would have said so.

Third, adopting the "militia" interpretation offered by the *NYSRPA* Goldfarb Brief leads to insuperable difficulties. What does "militia" mean? Does it mean the whole body of the people?[323] In that case, the "militia" restriction changes nothing.[324] Does it mean the militia as defined in various state statutes? If so, it would mean that women, for example, did not constitute members of "the people," and were and are excluded from the right to keep and bear arms. Also excluded would be white males outside the age limits set by statute. Is it plausible to assume that the framers and ratifiers intended men to lose their right to bear arms the moment they passed the age of 45 (or some other statutory limit)?[325] There is no evidence

321. *See id.*

322. *See id.*

323. At the Virginia ratifying convention, George Mason asked, "Who are the militia? They consist now of the whole people, except a few public officers." 3 THE DEBATES IN THE SEVERAL STATE CONVENTIONS ON THE ADOPTION OF THE FEDERAL CONSTITUTION 425 (Jonathan Elliot ed., 1836), https://memory.loc.gov/cgi-bin/query/r?ammem/hlaw:@field(DOCID+@lit(ed00316)) [perma.cc/W788-CSJB].

324. *See id.* As shown in Part V, *infra*, the Founders believed that the most important rights were founded in natural law. The Second Amendment did not *grant* a right to keep and bear arms. It merely confirmed that natural right, and it was a right possessed by individuals.

325. The present federal militia statute provides:

> (a) The militia of the United States consists of all able-bodied males at least 17 years of age and, except as provided in section 313 of title 32, under 45 years of age who are, or who have made a declaration of intention to become, citizens of the United States and of female citizens of the United States who are members of the National Guard.
>
> (b) The classes of the militia are—
>
> (1) the organized militia, which consists of the National Guard and the Naval Militia; and

of such a belief or practice. Alternatively, does "the militia" mean "statutory members of the militia when called into active service, during such service"? It would certainly be odd, if that is what was meant, to use the term "the people" instead.

Finally, the definition of "militia" varied from time to time, and from state to state in the colonial and founding period.[326] Did the right of the people to keep and bear arms *then change* every time the definition changed? The Second Amendment would be an odd constitutional right indeed if it were subject entirely to the legislature's control.

What is more, "[i]t is hard to imagine this 'one-half of an idiom' reading surviving if *keep arms* were confirmed to be purely literal[,]"[327] a result that Goldfarb concedes is consistent with the corpus data.[328] Indeed, *Heller* already derided Goldfarb's maneuver for the absurdity it is: "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."[329] While Goldfarb acknowledges that his "interpretation requires that *arms* be understood as being simultaneously literal (as part of *keep arms*) and figurative (as part of *bear arms*)," he claims that "there is reason to believe that that was in fact how *keep and bear arms* was understood at the time of the Second Amendment's framing and ratification."[330] Presumably that "reason" is Goldfarb's own corpus linguistics analysis. But rather than confirm his analysis, this counterintuitive result indicates that it has gone awry. Indeed, Goldfarb presents no evidence that individuals at the Founding (or ever) were in the habit of having a *single usage of a single word* convey two different meanings.[331] As just explained, there is a presumption that the same word repeated in a legal text has the same meaning throughout; surely there should be an even stronger

> (2) the unorganized militia, which consists of the members of the militia who are not members of the National Guard or the Naval Militia.

10 U.S.C. § 246.

326. *See What Does Militia Mean?*, CONSTITUTIONUS.COM, https://constitutionus.com/constitution/what-does-militia-mean/ [perma.cc/LC7L-PTX2].

327. Josh Jones, *The "Weaponization" of Corpus Linguistics: Testing* Heller's *Linguistic Claims*, 34 BYU J. PUB. L. 135, 172 (2020) (citation omitted).

328. *NYSRPA* Goldfarb Brief, *supra* note 28, at 17.

329. District of Columbia v. Heller, 554 U.S. 570, 587 (2008).

330. *Corlett* Goldfarb Brief, *supra* note 239, at 21.

331. *See generally id.*

presumption that a single word in a legal text is not both literal and one-half of an idiom.[332]

C. *Corpus Linguistics: Science or Scientism?*

Given the problems with the corpora and with the core methodology of corpus linguistics, it is reasonable to doubt that corpus linguistics is a scientific process that produces objective results.[333] Corpus linguistics has been promoted as a means to determine the original public meaning of language in the Constitution.[334] Its advocates tout it as a powerful new methodology to implement the originalist school of constitutional interpretation that came to the fore during the 1980s; a school of interpretation that has been embraced by Supreme Court justices including Justices Scalia, Thomas, Roberts, Alito, Gorsuch, Kavanaugh, and Barrett.[335]

Proponents argue that because corpus linguistics relies on computerized analyses of large and supposedly principled collections of texts to discover actual patterns of language use, it can provide "insight into, among other things, the meaning of words and phrases."[336] It is said to be a "scientific discipline."[337] Its advocates insist that the methodology is useful because it is supposedly "objective" and "empirical," and performs "tasks that cannot be performed by human linguistic intuition alone."[338] Because much legal scholarship revolves around linguistic questions, they claim that "corpus methods can be leveraged to provide *scientifically valid* methods for learning objective reality."[339]

332. *See* CANONS OF CONSTRUCTION, *supra* note 319.

333. *See* State v. Rasabout, 356 P.3d 1258, 1264–66 (Utah 2015) ("We decline to adopt a [linguistic] approach because, among other reasons, it is unfair to the parties and it attempts scientific research that is not subject to scientific review.").

334. *See* Phillips, Ortner & Lee, *supra* note 37.

335. The Supreme Court has stated that *Heller*'s aim was to determine "the public understanding in 1791 of the right codified by the Second Amendment." Gamble v. United States, 139 S. Ct. 1960, 1975 (2019).

336. *Law & Corpus Linguistics—Background*, *supra* note 39.

337. *Id*.

338. *NYSRPA* Linguists' Brief, *supra* note 28, at 14 (citing Lee & Mouritsen, *Judging Ordinary Meaning*, *supra* note 37).

339. *Law & Corpus Linguistics—Background*, *supra* note 39.

But is corpus linguistics actually science, or is it mere "scientism"?[340] Corpus linguistics certainly provides numbers (data), as science does, but if the numbers (data) are generated by flawed reasoning and subjective judgments, the results are plainly not scientific.[341]

As Georgetown Law Professor Kevin Tobia observed, the "use of corpus linguistics admits of interpretive choice and flexibility. Judges and advocates have flexibility in terms of which selection from the legal text to analyze, which corpus or corpora to search, which search(es) to conduct, and what conclusions to draw from the results returned from the corpus."[342] Given this substantial flexibility, Professor Tobia questions the "claim that the introduction of objective empirical methods will easily constrain legal interpretation."[343]

Professor Drakeman, after examining the use of corpus linguistics (or allied methods) in constitutional interpretation, proposed an alternative method: *flipping a coin*.[344]

> In practice, corpus linguistics searches for the Constitution's original meaning have often sought to select one of two possible meanings . . . . The goal has been to determine the answer objectively and empirically through a Big Data analysis of language use in the Founding [E]ra. For the sake of argument, and to highlight the key role

340. Scientism is the theory, reaching back to nineteenth century Positivism, that science can solve all human problems, and that if something cannot be proven empirically by science, then it is not valid as knowledge. *See* Thomas Burnett, *What is Scientism?*, AM. ASS'N FOR ADVANCEMENT SCI. (May 21, 2012), https://www.aaas.org/programs/dialogue-science-ethics-and-religion/what-scientism [perma.cc/Z934-WEDT]. Of course, there are many fields that do not lend themselves to scientific inquiry; and dressing up such an inquiry in scientific garb does not make it science, but scientism.

341. *See* Drakeman, *supra* note 37, at 92.

342. Kevin Tobia, *Dueling Dictionaries and Clashing Corpora*, DUKE CTR. FIREARMS L. BLOG (July 6, 2021), https://firearmslaw.duke.edu/2021/07/dueling-dictionaries-and-clashing-corpora/ [perma.cc/HL5Z-VKJF].

343. *Id.* Tobia's point is illustrated by the writings of corpus linguistics practitioners on the Second Amendment. *See, e.g.*, Brief of Neal Goldfarb as Amicus Curiae in Support of Appellees, Arguing in Favor of Affirmance at 8–9, Young v. Hawaii, 992 F.3d 765 (9th Cir. 2021) (No. 12-17808) (disagreeing with *Heller*'s reading of certain uses of "bear arms" as "denoting the nonmilitary carrying of weapons"); *Corlett* Goldfarb Brief, *supra* note 239, at 17 (disagreeing with search strategy used by other corpus linguistics analyses); Jones, *supra* note 327 ("disagree[ing] with Goldfarb's coding in several respects").

344. Drakeman, *supra* note 37, at 83.

> of assumptions in applying this methodology to constitutional interpretation, I will propose an alternate approach to resolving lawsuits that has the advantage of being equally or more objective, while also being faster, cheaper, and a great deal less complicated: flipping a coin, for which the odds of an accurate answer to these kinds of binary questions is 50 [percent].[345]

Professor Drakeman contends that the purported accuracy of corpus linguistics results depends on four assumptions: (1) that the database is fairly and comprehensively constructed to reflect usage in the Founding Era; (2) that the search criteria will capture all relevant hits and exclude irrelevant ones; (3) that the interpreter has accurately defined, correctly categorized, and precisely counted every hit regarding a particular meaning; and (4) that the interpreter has correctly reached a conclusion from analyzing the results, based on the number of hits or otherwise, regarding the objective public meaning as the word or phrase is used in the Constitution.[346] If the chance of accurately completing each step is even as high as 85 percent, he concludes, then the overall likelihood of reaching a correct result (0.85 x 0.85 x 0.85 x 0.85) is 52 percent—very close to the likelihood of a coin toss.[347]

IV. PRACTICAL PROBLEMS IN CONSTITUTIONAL AND OTHER CASES

In addition to these fundamental theoretical and methodological difficulties with corpus linguistics, using corpus linguistics in real world litigation suffers from serious procedural and evidentiary problems.

A. *Presentation of Corpus Linguistics Arguments for the First Time on Appeal Will Often Leave Litigants with No Chance to Respond*

It is rare, at least for now, for litigants to present original corpus linguistics research at the trial court level. To date, corpus linguistics arguments seem to be presented through two main channels: in amicus briefs on appeal or by appellate judges conducting their own research.

Let us begin with the amicus brief route. In the case of amicus briefs submitted in support of respondents in the Supreme Court or in support of appellees in the federal courts of appeals, those briefs will generally be submitted after the opening brief for petitioners or appellants has already been filed.[348] Thus, any amici supporting the petitioners or appellants will

345. *Id.*
346. *Id.* at 98.
347. *Id.*
348. *See* SUP. CT. R. 37.

have no chance to respond to arguments based on corpus linguistics data. The only opportunity the petitioners or appellants themselves will have to respond will be in their reply brief—where space is tightly limited and at a point in the litigation where it will not be feasible in most instances for the parties to conduct their own substantial corpus linguistics research, or to try to duplicate (or discredit) the research results of opposing amici.[349] The result is that only one side will be able to present meaningfully briefed corpus linguistics arguments.[350]

The situation is equally unfair when a court itself presents corpus linguistics results conducted sua sponte in the very opinion that decides the case. There is then *no* chance for the parties to replicate, scrutinize, or respond to the data or methodology. The harm to the adversary system by injecting corpus linguistics based on a judge's research was well described in the majority opinion of a criminal case in Utah.[351] The opinion noted that Associate Chief Justice Thomas Lee argued in a concurrence:

> [T]hat we should decide this case against Mr. Rasabout on the basis of the corpus linguistics research he has conducted sua sponte. But because his rationale is so different in kind from any argument made by the parties, Mr. Rasabout has never had a reasonable opportunity to present a different perspective. This violates the very notion of our adversary system, which "assures fairness by exempting a party from the inequity of [losing] on appeal on a ground that [he] had no opportunity to address." "[W]e should not dilute [the protections of our adversary system] by stretching their standards to justify our consideration of [an argument] we find interesting or important." Moreover, deciding this case on the basis of an argument not subjected to adversarial briefing is a recipe for making bad law.[352]

349. *See id.*

350. It is, of course, not unusual for amici in constitutional cases to cite publicly available facts, sources, studies, and the like in support of so-called "legislative facts." The difference with corpus linguistics is that the corpus linguistics briefs may cite data based on their own independent research, with no requirement to disclose the raw results and the procedures by which those results were refined. *See* Allison Orr Larsen, *The Trouble with Amicus Facts*, 100 VA. L. REV. 1757, 1759 (2014).

351. State v. Rasabout, 356 P.3d 1258 (Utah 2015). The Supreme Court of Utah has since changed course and has used corpus linguistics in some cases.

352. *Id.* at 1264–65. *See also* United States v. Sineneng-Smith, 140 S. Ct. 1575, 1578 (2020), in which the Supreme Court reprimanded the Ninth Circuit for departing "so drastically from the principle of party presentation as to constitute an abuse of discretion," and vacated and remanded the case "for an adjudication of the appeal

A musical copyright infringement case against singer Katy Perry and others illustrates the fundamental unfairness (and violation of the rules of evidence and *Daubert* principles) posed by allowing alleged scientific evidence into a case by the back door. In *Gray v. Perry*,[353] the plaintiffs claimed that an eight-note musical *ostinato* in "Dark Horse" by Perry infringed the copyright of "Joyful Noise" by "Christian rap/hip-hop artists."[354] Both sides named expert witnesses, and their reports were subjected to *Daubert* challenges.[355] Both experts testified at trial, the jury returned a large damages verdict in favor of the plaintiffs, and the trial court entered judgment. The trial court then granted a Rule 50(b) motion by the defendants for judgment as a matter of law, overturning the jury verdict.[356] Among other things, the trial court gave weight to an amicus brief by a group of musicologists filed after the trial was over and judgment had been entered. In big data fashion, the musicologists' brief stated that they had run the key pitch sequences through two large databases of music and they found:

> [A] search of music databases housed by the Center for Computer Assisted Research in the Humanities at Stanford University, and the Repertoire International des Sources Musicales, indicates that there are at least 6 other compositions in the same key containing the same pitch sequence, and more than 2,000 in all keys.[357]

The plaintiffs had no opportunity to refute this outside-the-record, hearsay evidence; to examine the scientific validity of it under *Daubert*; to cross-examine the individuals promulgating it; to inquire into the procedures used or the composition of the databases; or to otherwise examine its reliability. This case exemplifies the dangers of bypassing accepted safeguards regarding alleged scientific evidence, such as happens when corpus linguistics searches are injected into a case on appeal.[358]

attuned to the case shaped by the parties rather than the case designed by the appeals panel." *Id.*

353. Gray v. Perry, No. 2:15-cv-05642-CAS-JCx, 2020 WL 1275136 , at *1–2 (C.D. Cal. Mar. 16, 2020).

354. *Id.*

355. *Id.* at *11–21. The U.S. Supreme Court's decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), governs the admissibility of purportedly scientific evidence into the record, tasking the judge with the role of ensuring that the evidence is grounded in scientifically valid principles and methodology.

356. *Gray*, 2020 WL 1275136, at *18.

357. *Id.* at *10.

358. In *Jones v. Bonta*, the State of California itself agreed that "courts should be cautious in their use of corpus linguistics, especially where—as here—this emerging tool

B. *Judges and Lawyers Do Not Have the Expertise or Training to Conduct Corpus Linguistics Research, and Expert Testimony Is Required If the Results of Such Research Are to Be Considered*

Corpus linguistics advocates claim, as noted above, that corpus linguistics is scientific, objective, and empirical.[359] If so, some judges have argued that judges as a class do not have the scientific training or expertise to conduct such research. This was succinctly stated in the majority opinion in *Rasabout*:

> [I]t would be entirely inappropriate for this court to conduct the independent scientific research that serves as the basis for Justice Lee's approach . . . . Linguistics is a scientific field of study that uses empirical research to draw findings . . . . The knowledge and expertise required to conduct scientific research are "usually not within the common knowledge" of judges, so "testimony from relevant experts is generally required in order to ensure that [judges] have adequate knowledge upon which to base their decisions."[360]

The use of corpus linguistics would also turn judges and parties (or amici) into amateur lexicographers, rather than relying on those who compile dictionaries professionally to use their expertise in a neutral manner, unconnected with litigation advocacy. As stated by Judge Stranch in her concurrence in *Wilson*:

> I would not substitute the ad hoc selection process of individual judges for the "experienced judgment" of these trained scholars. Doing so would convert judges into armchair lexicographers, attempting the same work that dictionary authors have been performing for centuries. But unlike those experts, judges would shoulder this task without the specialized training necessary to make a reliable and neutral judgment call. Encouraging litigants to take on that same role would make the problem worse, not better.[361]

Although corpus linguistics as a field is not, perhaps, in the same class of difficulty as quantum mechanics, it does have its own terminology and concepts, which will not be familiar to the parties, lawyers, and judges. One

is raised for the first time in an interlocutory appeal." *Jones* Appellees' Supplemental Brief, *supra* note 260, at 16. Interestingly, while making this argument, California was arguing *against* an expansive view of the Second Amendment and gun rights generally.

359. *See supra* Part I.A.

360. State v. Rasabout, 356 P.3d 1258, 1265 (Utah 2015) (footnotes omitted).

361. Wilson v. Safelite Grp., Inc., 930 F.3d 429, 447 (6th Cir. 2019) (Stranch, J., concurring).

is not likely, in the courthouse cafeteria, to hear judges or attorneys tossing about terminology such as "concordance lines" or "collocate searches," much less chatting about how frequency can help determine "the degree of cognitive entrenchment of particular words/grammatical patterns."[362] And courthouse cafeterias are probably the better for it.

To illustrate, consider this language from the *NYSRPA* Goldfarb Brief, explaining a search for the word "bear" within four words before or after "arms":

> In earlier versions of this spreadsheet, the category in section 1m which is now described as "copredicational or arguably copredicational," was instead described as "zeugmatic or zeugmoid." The change from "zeugmatic" to "copredicational or arguably copredicational" was made because I realized that I was using "zeugma" to cover all cases of what I now refer to as copredication, including cases that would not be characterized as zeugma as that term is conventionally used and understood in linguistics. (For further explanation of zeugma and copredication, see the post "'keep and bear arms' (Part 2)."[363]

It appears that words like "zeugma," "zeugmatic," and "copredicational" have not yet found their way into Black's Law Dictionary.[364] This is not to say that corpus linguistics is inherently esoteric or difficult for those few brave souls with the fortitude and interest (and time) to figure out its serious-sounding vocabulary, but merely to observe that its language and concepts will not be instantly familiar to judges, law clerks, lawyers, or juries.

It is true that sometimes judges or juries need to make decisions regarding scientific, medical, technical, or other issues outside their knowledge, expertise, and experience. That is why, in such cases, parties will employ competing expert witnesses to elucidate the facts and relevant scientific principles involved. Since legal corpus linguistics advocates, as noted above, contend that it is scientific and empirical, then the logical conclusion is that it should be handled in accordance with the pertinent rules

362. *NYSRPA* Linguists' Brief, *supra* note 28, at 15.

363. Neal Goldfarb, *Corpora and the Second Amendment "Bear Arms" (Part 3)*, LAWNLINGUISTICS, (July 10, 2019), http://bit.ly/BearArmsLnL3 [https://perma.cc/V36D-4E32]. The source provides a downloadable corpus data spreadsheet entitled *'bear arms' & 'carry arms'* that was last revised on April 12, 2021.

364. *See generally* BLACK'S LAW DICTIONARY (11th ed. 2019).

of evidence and *Daubert* principles for expert scientific testimony, on both the federal and state levels.[365]

Indeed, a *Daubert* analysis was performed in 2021 by one federal district court to evaluate the admissibility of proposed expert testimony based on corpus linguistics.[366] The defendant in a trademark infringement case defended on grounds that the mark had become generic, and offered an expert report that relied in part on corpus linguistic research in the Corpus of Contemporary American English (COCA) and other sources.[367] The plaintiff attacked the expert's "methods and factual foundations as unreliable," a key test under *Daubert* and Federal Rule of Evidence 702.[368] For example, the plaintiff questioned why the expert "only limited his collocate search on COCA to four words on each side, rather than, say, eight words before and after each occurrence of 'kudos.'"[369] The plaintiff Kudos Inc. also contended that a specially constructed corpus that purported to relate to employee recognition programs, for which Kudos Inc. software was used, "was built from 'an improper sampling of documents' 'cherry-picked' by defense counsel."[370] Ultimately, the court found that it "need not resolve these methodological disputes" because it failed to pass another *Daubert* test: that the proffered testimony be helpful to deciding the issues in the case.[371] Even if the expert's report was methodologically sound, the court noted, "the opinion he seeks to proffer is unhelpful because it bears no 'link' to trademark genericness."[372] Accordingly, the court struck the relevant portions of the expert's report that had been based in part on the corpus linguistics findings.[373]

This decision is consistent with other cases that have found that expert opinions based on quantitative linguistics are subject to *Daubert*

365. Particularly relevant are Federal Rules of Evidence 702, 703, and 705, and their state law analogues. *See also* Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579 (1993).

366. Kudos Inc. v. Kudoboard LLC, No. 20-cv-01876-SI, 2021 WL 5415258 (N.D. Cal. Nov. 20, 2021).

367. *Id.* at *9.

368. *Id.*

369. *Id.*

370. *Id.*

371. *Id.* at *10.

372. *Id.*

373. *Id.* In another district court case, expert testimony by a linguist in a trademark matter was allowed under *Daubert*. American Airlines, Inc. v. Delta Air Lines, Inc., No. 4:19-cv-1053-O, 2021 WL 3629735, at *8 (N.D. Tex. May 18, 2021). The testimony was apparently based on corpus linguistics, but the research is not described in the court's opinion, and neither are the objections to it. *Id.* at *7–9.

gatekeeping. In a federal district court decision, the court held after a *Daubert* hearing that proposed linguistics testimony on "authorial attribution" by a proffered expert must be excluded in part, and the remaining testimony could be presented to the jury, but could not be offered as an expert opinion on the ultimate issue.[374] In a habeas corpus case, the court found that failure to provide funds for an expert on "linguistic discourse analysis"[375] was harmless error, because petitioner did not demonstrate that such analysis was "generally scientifically reliable and thus admissible in New York."[376] A federal trial court had no trouble under *Daubert* striking the expert report by an expert in "social linguistics" because of the "absence of a reliable theory" underpinning the report.[377]

Another federal district court decision strongly implied that a *Daubert* motion would have been appropriate in testing the admissibility of findings by a linguistics expert employing mathematical methods.[378] It rejected those findings, which attempted to attribute authorship of anonymous letters to one or more of the defendants in a defamation case by the use of a "computational linguistics" methodology.[379] Expressly noting that the "court does not have a *Daubert* motion before it," the court "reache[d] no conclusion about the reliability" of the linguistics expert's analytical method, but for a limited purpose accepted her opinion as admissible.[380] Nevertheless, the court found that the expert's attribution of the letters to one or more defendants "falls short of the clear and convincing standard because of the limitations [the expert] describes in her methodology."[381]

In short, courts should not use an untested, non-expert, outside the record, corpus linguistics analysis to revolutionize the accepted

374. United States v. Zajac, 748 F. Supp. 2d 1340, 1353–54 (D. Utah 2010); *see also* United States v. Van Wyk, 83 F. Supp. 2d 515, 523 (D.N.J. 2000) (excluding most testimony by qualified expert to identify defendant as author of threatening letters, in part because of the "lack of scientific reliability of forensic stylistics").

375. Sometimes called "language discourse analysis."

376. Tyson v. Keane, 991 F. Supp. 314, 328–29 (S.D.N.Y. 1998) (citing three other federal court cases in which linguistic discourse analysis expert testimony was excluded).

377. Flagstar Bank, FSB v. Freestar Bank, N.A., 687 F. Supp. 2d 811, 820 (C.D. Ill. 2009).

378. Neborsky v. Town of Victory, No. 5:17-cv-142 (D. Vt. Feb. 22, 2018); *aff'd*, 845 F. App'x 77 (2d Cir. Apr. 26, 2021).

379. *Id.* at 45.

380. *Id.* at 45.

381. *Id*. at 47.

understanding of the Second Amendment or other constitutional provisions.[382]

C. *Performing Corpus Linguistics Is Unreliable, Time Consuming, and Expensive*

As anyone who has been involved in a lawsuit can attest, litigation is extremely expensive.[383] Widespread use of corpus linguistics in litigation would only add to those already high costs. As opposed to using traditional means of interpretation, corpus linguistics research can "only be reliably conducted by dueling linguistics experts. Imposing such a significant financial burden on so many of the litigants coming through the doors of our courts would be tantamount to locking those doors for all but the most affluent."[384]

Corpus linguistics analysis is time-consuming (and therefore expensive) even to verify results presented by another party. When searching the corpora at the BYU site, each result contains only a small snippet of text in which the search words appear, expandable to a larger snippet through a key-word-in-context or "KWIC" function.[385] Goldfarb has posted spreadsheets that contain his results, but for each result they include only the snippet, the "concordance line number," the corpus name, and then the "source ID number," such as "HeinR91," "K107868.000," and "eebo.N07965."[386] His spreadsheet results do not contain the work's author, the title, date, or even country of publication (COEME contains English language results from countries other than the United States).[387] Those are

382. As the State of California noted in an appellate brief in a Second Amendment case, "any corpus linguistics analysis likely should be performed (if at all) by experts or lawyers trained in the tool, in the context of discovery in the trial court, and with sufficient time to carefully craft relevant searches, analyze data, and apply the resulting information to the question presented." *Jones* Appellees' Supplemental Brief, *supra* note 260, at 24–25. The brief further notes that the use of corpus linguistics should be "approached with caution" and that "any corpus linguistics analysis should be conducted in the first instance in the context of discovery in the trial court." *Id.* at 2.

383. *U.S. Litigation Costs Ranked as No.1 in the World*, *supra* note 108; U.S. CHAMBER INST. FOR LEGAL REFORM, INTERNATIONAL COMPARISONS OF LITIGATION COSTS 4 (2013), https://instituteforlegalreform.com/wp-content/uploads/media/ILR_NERA_Study_International_Liability_Costs-update.pdf [https://perma.cc/66YR-AHMQ].

384. State v. Rasabout, 356 P.3d 1258, 1265 (Utah 2015).

385. *See Law & Corpus Linguistics—Background*, *supra* note 39.

386. *See* Goldfarb, *Corpora and the Second Amendment*, *supra* note 315.

387. *Id.*

available through the KWIC function in COFEA and COEME themselves, but that requires anyone trying to access that basic information to try to replicate the search, and then examine each hit line by line to verify the results. That would be time consuming and, as noted above, may be impossible due to changes in the corpora or search engine.

V. THE LINGUISTS' BRIEFS FOCUS ON EMPTY WORD COUNTS WHILE IGNORING THE SUPREME COURT'S TEXT, HISTORY, AND TRADITION TEST

A. *Far from Helping Originalism, Corpus Linguistics Detracts from the Proper Focus on Text and History*

In *Heller*, the Supreme Court employed a textual and historical analysis to determine the meaning of the Second Amendment while flatly rejecting any "balancing test" such as strict or intermediate scrutiny.[388] Shortly thereafter, while still sitting on the D.C. Circuit, Judge—now Justice—Brett Kavanaugh's dissent in *Heller* inquired:

> Are gun bans and regulations to be analyzed based on the Second Amendment's text, history, and tradition (as well as by appropriate analogues thereto when dealing with modern weapons and new circumstances . . .)? Or may judges re-calibrate the scope of the Second Amendment right based on judicial assessment of whether the law advances a sufficiently compelling or important government interest to override the individual right?[389]

Then-Judge Kavanaugh concluded that "*Heller* and [*McDonald v. City of Chicago*] leave little doubt that courts are to assess gun bans and regulations based on text, history, and tradition."[390] He continued:

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

389. Heller v. District of Columbia (*Heller II*), 670 F.3d 1244, 1271 (D.C. Cir. 2011) (Kavanaugh, J., dissenting).

390. *Id.* History and tradition are overlapping concepts. In determining the meaning of a constitutional provision, historical events and traditions of the American people leading up to and surrounding the adoption of the provision are most relevant. Post-ratification history and tradition may also be relevant, but in the event of a conflict, the original understanding controls. *See id.* at 1274 n.6 (Kavanaugh, J., dissenting) ("It is not uncommon for courts to look to post-ratification history and tradition to inform the interpretation of a constitutional provision. . . . That said, post-ratification adoption or acceptance of laws that are *inconsistent* with the original meaning of the constitutional text obviously cannot overcome or alter that text.").

> [I]n order for the Court to prospectively approve the constitutionality of several kinds of gun laws—such as machine gun bans, concealed-carry laws, and felon-in-possession laws—the Court obviously had to employ *some* test. Yet the Court made no mention of strict or intermediate scrutiny when approving such laws. Rather, the test the Court relied on—as it indicated by using terms such as "historical tradition" and
>
> "longstanding" and "historical justifications"—was one of text, history, and tradition.[391]

Although the courts of appeals have, in general and contrary to *Heller*, applied balancing tests, many federal appellate judges have continued to advocate for applying *Heller*'s textual and historical test as opposed to a "levels of scrutiny" approach.[392] And while the Seventh and D.C. Circuits have generally applied a levels of scrutiny approach in Second Amendment cases, they also have struck down onerous carry restrictions categorically without engaging in any interest balancing.[393] The Supreme Court of Illinois followed the Seventh Circuit's lead in finding that a state ban on public carry is categorically unconstitutional.[394] And the Supreme Court of Illinois and the Massachusetts Supreme Judicial Court (the State's high court) have likewise struck down stun gun bans categorically.[395] Therefore, while appellate courts, until *New York State Rifle & Pistol Ass'n v. Bruen*, generally eschewed *Heller*'s guidance, the insubordination has not been uniformly consistent. Now that *Bruen* has been decided, there is no question that text, history, and tradition constitute the proper test.[396]

Under a text and history approach, understanding the meaning of the Second Amendment begins with its text, including the common meaning of

391. *Id.* at 1273 (citing *Heller*, 554 U.S. at 626–27, 635).

392. Mai v. United States, 974 F.3d 1082, 1087 (9th Cir. 2020) (Bumatay, J., dissenting); Mance v. Sessions, 896 F.3d 390, 394 (5th Cir. 2018) (Elrod, J., dissenting); Peruta v. Cnty. of San Diego, 742 F.3d 1144, 1167 (9th Cir. 2014), *rev'd en banc*, 824 F.3d 919 (9th Cir. 2016), *cert. denied*, 137 S. Ct. 1995 (2017); Young v. Hawaii, 896 F.3d 1044 (9th Cir. 2018), *rev'd en banc*, 992 F.3d 765 (9th Cir. 2021), *and vacated*, 142 S. Ct. 2895 (2022).

393. *See, e.g.*, Wrenn v. District of Columbia, 864 F.3d 650, 667 (D.C. Cir. 2017); Moore v. Madigan, 702 F.3d 933, 941 (7th Cir. 2012).

394. *See* People v. Aguilar, 2 N.E.3d 321, 327 (Ill. 2013) (finding a "comprehensive ban" on carrying firearms unconstitutional).

395. People v. Webb, 131 N.E.3d 93, 98 (Ill. 2019); Ramirez v. Commonwealth, 94 N.E.3d 809, 815 (Mass. 2018).

396. N.Y. State Rifle & Pistol Ass'n, Inc. v. Bruen, 142 S. Ct. 2111, 2126–30 (2022).

its words and phrases in context.[397] The text may also be compared with other provisions of the Bill of Rights and the Constitution where similar wording appears.[398] One must also examine the history of the Amendment and the rights it codifies in the period leading up to its approval by Congress and in the state ratifying conventions.[399] Relevant material also includes the history of the right to arms under English law, post-adoption commentaries, and judicial decisions on this subject during the early republic.[400] The Supreme Court extensively considered these types of sources in *Heller*, *McDonald*, and *Bruen* when analyzing the Second Amendment.[401] In light of these decisions, Professor Baron's accusation that "[c]onservative jurists claim to focus on the text and nothing but the text as they seek to discover the original public meaning of the Second Amendment" is plainly inaccurate.[402]

In contrast to this rich and textured inquiry, legal corpus linguistics analysis in the Second Amendment context has instead focused in excruciating detail on counts of words and word combinations to the exclusion of history and tradition. As stated by Judge Stranch in *Wilson*, after noting some of the practical concerns with corpus linguistics:

> Underlying these practical usage issues is my concern with the implicit suggestion that corpus linguistics is a simple, objective tool capable of providing answers to the puzzle of statutory interpretation. The use of corpus linguistics brings us no closer to an objective method of statutory interpretation. Instead, it encourages judges to stray even further from our historic and common-sense considerations—including the "text, structure, history, and purpose" of a statute—that ought to guide our analysis.[403]

Goldfarb has defended against the charge that corpus linguistics ignores context by arguing that "[a]s actually used in legal interpretation corpus linguistics . . . has always taken account of the context in which the relevant word or phrase appears in the statute, constitution, or other

397. *See Heller*, 554 U.S. at 576–77.

398. *See id.* at 580.

399. *See id.* at 655.

400. *See id.* at 593–95.

401. *See generally id.*; McDonald v. City of Chicago, 561 U.S. 742 (2010); *Bruen*, 142 S. Ct. 2111 (2022).

402. Baron, *Corpus Linguistics, Public Meaning, and the Second Amendment*, *supra* note 267.

403. Wilson v. Safelite Grp., Inc., 930 F.3d 429, 448 (6th Cir. 2019) (Stranch, J., concurring).

provision at issue."[404] "Thus," Goldfarb continued, "what matters is not the most common use of the word or phrase overall, but the most common use when the word or phrase appears in a context similar to its context in the legal provision."[405] But this purported defense misses the point. The relevant "context" that corpus linguistics ignores is the broader history and tradition of the right to carry arms in the period around the Founding, as well as the intellectual underpinning of the Founders' political philosophy. This missing context is not supplied by eliminating irrelevant or off-topic results before counting hits in a corpus linguistics analysis.

Changing tack, Goldfarb argues that criticizing corpus linguistics for "'ignor[ing] the history and context of legal texts' . . . . is like criticizing bicycles because they can't mow lawns" and, if accepted, would also mean that "dictionaries shouldn't be used in legal interpretation."[406] In other words, "[c]orpus linguistics, like most tools, has a function it was designed to perform, and like most tools it's not good at performing other functions. But that's no reason to throw the tool away."[407] Goldfarb goes on to highlight an "approach to combining corpus linguistics with history" proposed by University of Virginia School of Law Professor Lawrence Solum:

> This approach . . . brings corpus linguistics together with two additional methodologies: (1) immersing oneself in "the linguistic and conceptual world of the authors and readers of the constitutional provision being studied," and (2) studying the "Constitutional Record," which includes "precursor provisions," drafting history, the ratification debates, early historical practice, and early judicial decisions.[408]

But this narrow conception of the role of corpus linguistics is hard to square with Goldfarb's insistent pronouncements that his corpus linguistics analyses call for a fundamental rethinking of the Supreme Court's Second Amendment jurisprudence. Goldfarb appears to be engaging in the motte-and-bailey fallacy (which takes its name from the medieval European motte-

404. *Jones* Goldfarb brief, *supra* note 264, at 2. *See also Bruen* Goldfarb Brief, *supra* note 30, at 22–23.

405. *Jones* Goldfarb Brief, *supra* note 264, at 2–3.

406. *Id*. at 5 (quoting *Jones* Appellants' Supplemental Brief, *supra* note 141, at 17).

407. *Id.*

408. *Id.* at 6 (quoting Lawrence B. Solum, *Triangulating Public Meaning: Corpus Linguistics, Immersion, and the Constitutional Record*, 2017 BYU L. REV. 1621, 1621, 1623 (2017)).

and-bailey castle)[409] by making a radical claim (that his corpus analysis undermines *Heller*), but when challenged retreating to a more modest claim (that corpus linguistics can play a limited role in constitutional interpretation) to insist that his argument has not been refuted.

What is more, Goldfarb's more modest conception of the role of corpus linguistics does not undermine but in fact vindicates *Heller*. As explained above, the Court in *Heller* had before it the submission of linguists who argued that the phrase "bear arms" was most often used in a military context.[410] The Court evaluated this claim alongside historical evidence of the type Professor Solum says should be considered and determined that the best interpretation of the Second Amendment is that it protects an individual right to have and carry firearms that is not limited to the military context.[411] While Goldfarb's analysis adds to the quantity of texts evaluated by the linguists, it is not qualitatively different and does nothing to undermine the broader historical inquiry performed by the Court. It appears that the use of corpus linguistics to determine the meaning of the text of the Second Amendment may, in practical terms, be settled after *Bruen*. Although several amicus briefs urging that corpus linguistics be employed were filed in *Bruen*,[412] the 6-3 majority opinion in that case did not even mention corpus linguistics.[413] The only reference to corpus linguistics in *Bruen* came in a short passage in Justice Breyer's dissent, arguing that *Heller* and *Bruen* relied too much on history.[414]

The relative weakness of corpus linguistics compared to an approach attuned to the history and tradition surrounding a particular legal text is illustrated by a "parable" that University of Chicago Law Professor William Baude "found very helpful":

> On one occasion an expert in the law stood up to test the Linguist. "Linguist," he asked, "what must I do to correctly interpret this Law?"

409. Nicholas Shackel, *Motte and Bailey Doctrines*, UNIVERSITY OF OXFORD: PRACTICAL ETHICS (Sept. 5, 2014), http://blog.practicalethics.ox.ac.uk/2014/09/motte-and-bailey-doctrines/ [https://perma.cc/2BW5-MJM4].

410. *See supra* Part I.A.

411. *Id.*

412. *See generally Bruen* Goldfarb Brief, *supra* note 30; *Bruen* Linguists' Brief, *supra* note 30.

413. *See generally* N.Y. State Rifle & Pistol Ass'n, Inc. v. Bruen, 142 S. Ct. 2111 (2022).

414. *Id.* at 2178.

> "What is written in the Law?" he replied. "How do you read it?"
>
> The Judge answered, "the Law says, 'no person shall bear arms at or near any bank.' This proscribes carrying arms at or near rivers or lakes."
>
> "You have answered incorrectly," the Linguist replied, "this means that no person shall perform any military service at or near financial institutions."
>
> But the Judge wanted the Linguist to justify himself, so he asked, "And how did you come to that conclusion?"
>
> In reply the Linguist said: "I conducted a corpus linguistics analysis of the words 'bear arms' and 'bank.' In the first case, I found that 'bear arms' had an idiomatic sense to do with military service that was used more frequently than the literal sense you favored."
>
> The Linguist continued: "In the second case, I found that the sense to do with financial institutions was used more frequently than the sense to do with bodies of water. Go and hold likewise!"
>
> The Judge replied, "I cannot. My law clerk discovered one piece of historical evidence about this Law in particular that refutes your very general background evidence."
>
> The Judge continued: "The Law's author said in a newspaper article defending the Law, 'the recent public shooting at the river demands action!'" And with this one piece of evidence, the Judge moved the mountain of evidence supplied by the corpus data into the dustbin.[415]

Justice Barrett, before she became a member of the Supreme Court, gave a similar response when asked by Judge Thomas Hardiman during a panel discussion in which she participated, "What do our panelists think . . . about addressing [a] stay off the grass hypothetical by having recourse to

415. William Baude, *The Parable of the Soldier at the Bank*, VOLOKH CONSPIRACY (July 7, 2021, 10:47 AM), https://reason.com/volokh/2021/07/07/the-parable-of-the-soldier-at-the-bank/ (quoting Originalism (@Originalism1), TWITTER (Apr. 27, 2021, 4:36 PM), https://twitter.com/Originalism1/status/1387158773169631232) [https://perma.cc/KJ9H-5YUM]. Overall, Baude has indicated that, in his view based on the corpus linguistics arguments advanced to date, "most of *Heller*'s premises have not yet been dislodged, and the results are less dramatic than *Heller*'s critics hoped." Baude, *supra* note 318.

corpus linguistics to figure out whether grandpa was talking about marijuana or the lawn"?[416] Justice Barrett responded,

> So I imagine that if you plug in "stay off the grass" into a corpus linguistics database, you may well generate answers that are both "stay off the green stuff on the lawn" as well as "stay off of pot."
>
> We know which one it is because of the grandfather being a drug addict in the 1970s.[417]

Thus, Justice Barrett concluded, "It was the context of the situation that answered the question. *So I don't think that interpretation, whether we're talking about statutes or the Constitution, is a kind of mechanical exercise where you can look in dictionaries or even a corpus linguistics database to generate every answer*."[418]

While we cannot summarize here all of the scholarship and arguments showing that the Second Amendment is an individual right firmly fixed in our nation's history and traditions, we can examine several important strands which show the risk of ignoring history and tradition by instead focusing on word counts. The evidence is much more compelling than the single newspaper article in the parable of the soldier at the bank, or the grandpa's history of drug use in the hypothetical addressed by Justice Barrett. First, the historical absence of any legal prohibitions on carrying arms peaceably during the colonial period and early republic demonstrates that the early inhabitants of this country believed that the right to bear arms for private use should not be restricted.[419] Second, early Americans exercised that right on a daily basis—that is, there was a tradition of keeping and bearing arms for private use.[420] Third, the Founders, in accordance with Enlightenment philosophy, believed that it was part of the plan of God or nature, discernible by reason, to be able to exercise the natural right of self-defense through the use of arms.[421] We address these three key points in this Part, and we believe that the contrast with the approach taken by the Second Amendment corpus linguistics advocates will be apparent.

416. *The Federalist Society Presents: Showcase Panel II: Why, or Why Not, Be an Originalist?*, *supra* note 97.

417. *Id*.

418. *Id*. (emphasis added).

419. *See* discussion *infra* Part V.B.

420. *See* discussion *infra* Part V.C.

421. *See* discussion *infra* Part V.D.

B. *History of Arms Regulation in the Colonies and Early Republic*

The history of arms regulation in the colonies and early republic is simple and sheds far more light on the meaning and purpose of the Second Amendment than any word counts. Most colonies and states had organized militias in which able-bodied male citizens were required to participate, generally furnishing their own rifles or muskets, powder, and lead.[422] Apart from militia use, private arms could be carried and used by individuals at will as long as the use was peaceable.[423]

Foes of the individual right to keep and bear arms argue that provisions similar to medieval England's Statute of Northampton applied in this country after U.S. independence, either by positive enactment in a handful of states or by the carryover of the common law from Great Britain.[424] But the Statute itself, as interpreted in England, and the very few American analogues, made carrying of arms illegal only when done "to the terror of the people," or similar language.[425] There were often exceptions for slaves

422. *See* JOHNSON ET AL., FIREARMS LAW, *supra* note 56, at 225–34, 287–97.

423. *See id.* There were also a few, generally local, safety regulations governing such things as storage of gunpowder, shooting in crowded areas or in a manner that would endanger the public, and hunting regulations. *See* Saul Cornell & Nathan DeDino, *A Well Regulated Right: The Early American Origins of Gun Control*, 73 FORDHAM L. REV. 487, 500–01 (2004).

424. *The Statute of Northampton and the Second Amendment*, STATUTES AND STORIES (Nov. 7, 2021), https://www.statutesandstories.com/blog_html/the-statute-of-northampton-and-the-second-amendment/#:~:text=except%20the%20King's%20servants%20in,colonies%20in%20the%20late%201700s [https://perma.cc/9KUZ-28Z7]. It bears mentioning that in a dissent from the Court's denial of certiorari in a right to carry case, Justice Thomas thoroughly debunked the notion that the Statute of Northampton precluded a finding of the individual right to carry arms in public. *See* Rogers v. Grewal, 140 S. Ct. 1865, 1869–73 (2020) (Mem.) (Thomas, J., dissenting). Stephen Halbrook's 2021 book also refutes the notion that the Statute of Northampton or any U.S. analogues alter the individual rights model of the Second Amendment. HALBROOK, THE RIGHT TO BEAR ARMS, *supra* note 76, pt. I.

425. *See, e.g.*, A COLLECTION OF ALL SUCH ACTS OF THE GENERAL ASSEMBLY OF VIRGINIA ch. 21, at 33 (1794). Virginia's Act Forbidding and Punishing Affrays (1786) recited that no man shall "go nor ride armed . . . *in terror of the country*. . . ." *Id.* (emphasis added). *See also* 2 PERPETUAL LAWS OF THE COMMONWEALTH OF MASSACHUSETTS: FROM THE ESTABLISHMENT OF ITS CONSTITUTION, IN THE YEAR 1780, TO THE END OF THE YEAR 1800, at 259 (Isaiah Thomas ed., 1801) (stating the 1795 Massachusetts enactment punished "such as shall ride or go armed *offensively, to the fear or terror of the good citizens of this Commonwealth*. . . .") (emphasis added); *Act of Nov. 14, 1801*, *in* 1 LAWS OF THE STATE OF TENNESSEE: INCLUDING THOSE OF NORTH

and free Blacks, changing over time and place.[426] But otherwise the right to carry in the colonies and early republic was universal.

The very limited colonial enactments and statutes of the early republic concerning arms in general consisted of such things as prohibiting firearms trade with Indians,[427] forbidding discharge of firearms in certain inappropriate places,[428] specifying the circumstances in which former colonists disloyal to the Revolution (that is, the wartime enemy forces) could be disarmed,[429] and regulating hunting.[430] Throughout the colonial period to the time the Bill of Rights was ratified, there was no law against a white citizen carrying arms so long as those arms were carried peaceably.[431]

CAROLINA NOW IN FORCE IN THIS STATE: FROM THE YEAR 1715 TO THE YEAR 1820, INCLUSIVE ch. 22.6, at 710 (Edward Scott ed. 1821); *An Act describing the power of Justices of the Peace in Civil and Criminal Cases* §1, *in* LAWS OF THE STATE OF MAINE 434–36 (Francis O. J. Smith ed., 1834).

426. *See* STEVE EKWALL, THE RACIST ORIGINS OF US GUN CONTROL: LAWS DESIGNED TO DISARM SLAVES, FREEDMEN, AND AFRICAN AMERICANS, https://www.sedgwickcounty.org/media/29093/the-racist-origins-of-us-gun-control.pdf [https://perma.cc/9GD2-W8SW].

427. *See, e.g.*, *Ordinance of March 31, 1639*, *in* LAWS & ORDINANCES OF NEW NETHERLAND, 1638–1674, at 18–19 (E.B. O'Callaghan ed., 1868).

428. *See, e.g.*, *Act of April 9, 1760*, *in* A DIGEST OF THE ORDINANCES OF THE CORPORATION OF THE CITY OF PHILADELPHIA; AND OF THE ACTS OF ASSEMBLY RELATING THERETO §7, at 76 (John C. Lowber & Clement S. Miller eds., 1822).

429. *See, e.g.*, *An Ordinance Respecting the Arms of Non-Associators*, *in* 9 THE STATUTES AT LARGE OF PENNSYLVANIA FROM 1682 TO 1801 §1, at 11 (James T. Mitchell & Henry Flanders eds., 1903) (directing militia officers to collect all arms in his district in the hands of non-associators; i.e., Loyalists).

430. *See, e.g.*, *Act of March 2nd, 1642 Act XI*, *in* 1 THE STATUTES AT LARGE; BEING A COLLECTION OF ALL THE LAWS OF VIRGINIA, FROM THE FIRST SESSION OF THE LEGISLATURE, IN THE YEAR 1619, at 248 (William Waller Hening ed., 1823) (requiring leave of landowner before hunting on his land).

431. There was a single outlier in early colonial New Jersey. New Jersey then consisted of two separate Provinces. In the Province of East New Jersey, a law was enacted in 1686 forbidding the concealed carrying of "any Pocket Pistol, Skeins, Stilladers, Daggers or Dirks, or other unusual or unlawful Weapons," with certain other prohibitions and exceptions. *See Laws of 1686*, *in* THE GRANTS, CONCESSIONS, AND ORIGINAL CONSTITUTIONS OF THE PROVINCE OF NEW JERSEY ch. 9, at 289–90 (Aaron Leaming & Jacob Spicer eds., 1758). Beginning with Massachusetts in 1836, several states in the middle nineteenth century enacted laws requiring individuals who were reasonably accused of posing a specific threat to public safety to post a surety or bond before continuing to carry their arms. HALBROOK, THE RIGHT TO BEAR ARMS, *supra* note 76, at 231–40. But by their plain text, these laws only limited those reasonably thought to pose a threat to public safety; they in no way generally banned the peaceable

The same is largely true after ratification of the Bill of Rights. The Supreme Court has sometimes looked at post-ratification history and tradition to help confirm the meaning of constitutional provisions.[432] That makes sense, because people then had a continuing understanding of what the Constitution meant, passed down from the Founding. The history of regulating the carrying of arms before, during, and soon after the period of the Mexican War (1846–48) consisted only of prohibitions in a small minority of states against carrying *concealed* weapons (not the open carry of weapons), often of only a few specified kinds.[433] Court challenges to these laws under the Second Amendment or, more frequently, under state constitutional guarantees of the right to arms, assumed that a private right to arms existed under those guarantees and was enforceable in court.[434]

carrying of arms. REVISED STATUTES OF THE COMMONWEALTH OF MASSACHUSETTS tit. II, ch. 134, § 15, at 750 (Theron Metcalf & Horace Mann eds., 1836). For a more complete discussion of these laws and New Jersey's colonial restriction, *see* HALBROOK, THE RIGHT TO BEAR ARMS, *supra* note 76, at 128–29, 217–33.

432. Dames & Moore v. Regan, 453 U.S. 654, 679 n.8 (1981) (discussing Article II powers); Marsh v. Chambers, 463 U.S. 783, 786–92 (1983) (discussing legislative prayers and the Establishment Clause).

433. *See, e.g.*, Bliss v. Commonwealth, 12 Ky. 90, 90 (1822) ("[A]ny person in this commonwealth, who shall hereafter wear a pocket pistol, dirk, large knife, or sword in a cane, concealed as a weapon, unless when travelling on a journey, shall be fined . . . ."); Aymette v. State*,* 21 Tenn. 154, 155 (1840) ("[I]f any person shall wear any bowie-knife, or Arkansas toothpick, or other knife or weapon that shall in form, shape, or size resemble a bowie-knife or Arkansas toothpick, under his clothes, or keep the same concealed about his person, such person shall be guilty of a misdem[e]anor . . . ."); State v. Reid, 1 Ala. 612, 614 (1840) ("[T]hat if any person shall carry concealed about his person, any species of fire arms, or any Bowie knife, Arkansaw tooth pick, or any other knife of the like kind, dirk, or any other deadly weapon, the person so offending, shall on conviction thereof, before any court having competent jurisdiction, pay a fine . . . ."); State v. Buzzard, 4 Ark. 18, 18 (1842) ("[E]very person who shall wear any pistol, dirk, butcher or large knife, or a sword in a cane, concealed as a weapon, unless upon a journey, shall be adjudged guilty of a misdemeanor."); Nunn v. State, 1 Ga. 243, 246 (1846) (prohibiting having about one's person or elsewhere certain Bowie and similar knives, "pistols, dirks, sword-canes, spears, &c . . . save such pistols as are known and used as horseman's pistols. . . ."; statute held unconstitutional for open carry but not for concealed carry); State v. Chandler, 5 La. Ann. 489, 489 (1850) (finding that it is a misdemeanor to be "found with a concealed weapon, such as a dirk, dagger, knife, pistol, or any other deadly weapon concealed in his bosom, coat, or any other place about him, that does not appear in full open view.").

434. However, convictions were upheld in some cases because a concealed weapon was not suitable for militia purposes. *Aymette,* 21 Tenn. at 161–62; *Reid*, 1 Ala. at 622; *Buzzard*, 4 Ark. at 28.

All of these cases involved the right to private carry by individuals, and thus negate any collective "militia right" theory.[435] If the right were only a right to serve in the militia, the courts would not have even entertained these cases and would have dismissed them on grounds that the individuals had no right to carry weapons outside of militia use. The *Nunn v. State* court expressly stated its understanding that the right to bear arms privately was protected, not just a militia right: "The right of the whole people, old and young, men, women and boys, and not militia only, to keep and bear *arms* of every description, and not *such* merely as are used by the *militia*, shall not be *infringed*, curtailed, or broken in upon, in the smallest degree . . . ."[436]

The Supreme Court's decision in *Dred Scott v. Sandford* observed that if Black people were held to be citizens within the meaning of the Constitution's Privileges and Immunities clause:

> It would give to persons of the negro race, who were recognized as citizens in any one State of the Union, the right to enter every other State whenever they pleased, singly or in companies, without pass or passport, and without obstruction, to sojourn there as long as they pleased, to go where they pleased at every hour of the day or night without molestation . . . and it would give them the full liberty of speech in public and in private upon all subjects upon which its own citizens might speak; to hold public meetings upon political affairs, and *to keep and carry arms wherever they went*.[437]

Despite ruling incorrectly on the merits, the infamous *Dred Scott* opinion demonstrated the understanding that Black people *as citizens* would have had the same liberties as white people under the Constitution; namely, "to keep and carry arms wherever they went," privately, and unconnected to any military or militia duties.[438]

The judicial distinction between a collective militia right and a private right to arms was invented in the twentieth century, not in the Founding

435. *See Aymette,* 21 Tenn. at 161–62; *Reid*, 1 Ala. at 622; *Buzzard*, 4 Ark. at 28.

436. *Nunn,* 1 Ga. at 251.

437. 60 U.S. (19 How.) 393, 417 (1857) (enslaved party), *superseded by constitutional amendment*, U.S. CONST. amend. XIV (emphasis added). In *Bruen*, Justice Thomas cited to this passage in *Dred Scott*, and observed that "even Chief Justice Taney recognized (albeit unenthusiastically in the case of [B]lacks) that public carry was a component of the right to keep and bear arms—a right free [B]lacks were often denied in antebellum America." N.Y. State Rifle & Pistol Ass'n, Inc. v. Bruen, 142 S. Ct. 2111, 2178 (2022).

438. *Id.*

period.[439] That distinction was first advanced in the federal circuit courts of appeals, at the earliest, in 1942.[440] It was then adopted by most federal circuits in the latter quarter of the twentieth century.[441] But the idea that the Second Amendment only protects a collective—and not an individual—right to bear arms was not adopted in any federal case during the Founding period, during all of the nineteenth century, and for most of the twentieth century.

C. *In the Colonial and Founding Periods There Was a Continuous History of Owning, Using, and Carrying Arms by Individuals*

To confirm that there was a history of carrying firearms, we need look no further than the seven Presidents from the Founding until 1837.[442] These Presidents all privately kept, carried, and enjoyed firearms, as did Patrick

439. There are some mid-to-late nineteenth century state court cases, beginning with *Buzzard*, 4 Ark. at 18, which upheld restrictions on carrying certain weapons such as brass knuckles, fighting knives, and small pocket pistols, on grounds that these weapons had no relation to military service. *See also* English v. State, 35 Tex. 473 (1871). These cases involved interpretation of state constitutional provisions, which varied in their wording, rather than the Second Amendment. *Id.* No state case adopted an interpretation that the state constitution did not protect an individual right, but only a collective militia right, until City of Salina v. Blaksley. 83 P. 619 (Kan. 1905). That example was not followed by other state cases in the early twentieth century, which continued to hold that the right was an individual one. *See generally* David T. Hardy, *The Rise and Demise of the "Collective Right Interpretation" of the Second Amendment*, 59 CLEV. STATE L. REV. 315 (2011).

440. Cases v. United States, 131 F.2d 916, 921–23 (1st Cir. 1942).

441. *See, e.g.*, Silveira v. Lockyer, 312 F.3d 1052, 1063–66 (9th Cir. 2002); Gillespie v. City of Indianapolis, 185 F.3d 693, 710 (7th Cir. 1999), *abrogated by* United States v. Skoien, 587 F.3d 803 (7th Cir. 2009), *aff'd on reh'g en banc*, 614 F.3d 638 (7th Cir. 2010); United States v. Wright, 117 F.3d 1265, 1273–74 (11th Cir. 1997), *vacated in part on reh'g*, 113 F.3d 1412 (11th Cir. 1998); United States v. Rybar, 103 F.3d 273, 286 (3d Cir. 1996); Love v. Pepersack, 47 F.3d 120, 124 (4th Cir. 1995); United States v. Hale, 978 F.2d 1016, 1018–20 (8th Cir. 1992) (limiting the Second Amendment "to the preservation or efficiency of a well regulated militia"); United States v. Oakes, 564 F.2d 384, 387 (10th Cir. 1977); United States v. Warin, 530 F.2d 103, 105–07 (6th Cir. 1976), *cert. denied*, 426 U.S. 948 (1976). *But see* United States v. Emerson, 270 F.3d 203, 221, 223, 227–60 (5th Cir. 2001) (holding that the Second Amendment guarantees an individual right to keep and bear arms, and it is not a collective right).; *accord* Parker v. District of Columbia, 478 F.3d 370, 395 (D.C. Cir. 2007). All cases holding that the Second Amendment does not protect an individual right were effectively abrogated by *Heller*.

442. *See supra* Part II.A.1.

Henry[443] and John Marshall, the prominent early Chief Justice of the U.S. Supreme Court.[444]

Patrick Henry stirred the Virginia Ratification Convention by declaring, "The great object is, that every man be armed . . . . Every one who is able may have a gun."[445] As a lawyer before the Revolution, Henry lived "just north of Hanover town, but close enough for him to walk to court, his musket slung over his shoulder to pick off small game for [his wife] Sarah's table."[446]

George Washington "owned perhaps fifty firearms during his life, and some of his pistols . . . saddle holsters, and fowlers (shotguns) may be seen today at Mt. Vernon and West Point."[447] According to a nineteenth century source, after the Revolutionary War ended, Washington and his servant rode on horseback from Alexandria to Mount Vernon.[448] "*As was then the custom*, the General had holsters, with pistols in them, to his saddle."[449] A ruffian and reputed murderer forbade him from passing and threatened to shoot him.[450] As related by that source, Washington handed his pistol to the servant, saying, "If this person shoots me, do you shoot him," and rode on without incident.[451]

John Adams spent his youth playing games and sports, and, "above all, in shooting, to which diversion I was addicted to a degree of ardor which I know not that I ever felt for any other business, study or amusement."[452] A

443. Patrick Henry, who delivered the famous "Give me liberty or give me death!" speech, was the first governor of Virginia after the Revolutionary War began. He was prominent among the Anti-Federalists who supported the inclusion of a Bill of Rights as a condition to ratifying the Constitution. *Patrick Henry*, HISTORY, https://www.history.com/topics/american-revolution/patrick-henry [https://perma.cc/4LY5-666Q] (Nov. 9, 2009).

444. TIM MCGRATH, JAMES MONROE: A LIFE 9–10 (2020).

445. 3 THE DEBATES IN THE SEVERAL STATE CONVENTIONS ON THE ADOPTION OF THE FEDERAL CONSTITUTION 386 (Jonathan Elliot ed., 2d ed. 1836), https://oll.libertyfund.org/title/elliot-the-debates-in-the-several-state-conventions-vol-3 [https://perma.cc/CL8M-D5VT].

446. HARLOW GILES UNGER, LION OF LIBERTY 30 (Da Capo Press 2010).

447. HALBROOK, FOUNDERS' SECOND AMENDMENT, *supra* note 70, at 316–17.

448. BENJAMIN OGLE TAYLOE, OUR NEIGHBORS ON LAFAYETTE SQUARE 47 (1872).

449. *Id.* (emphasis added).

450. *Id.*

451. *Id.*

452. ANNE HUSTED BURLEIGH, JOHN ADAMS 8–9 (1969) (quoting 3 DIARY AND

biographer states: "John's zest for shooting prompted him to take his gun to school, secreting it in the entry so that the moment school let out he might dash off to the fields after crows and squirrels."[453]

Thomas Jefferson was an avid hunter, shooter, and gun collector. His memorandum books kept between 1768 and 1823 contain numerous references to the acquisition of pistols, guns, muskets, rifles, fusils, gun locks, ammunition, other gun parts, and the repair of firearms.[454] Included were a pair of Turkish pistols "so well made that I never missed a squirrel 30. yards with them."[455] Jefferson carried one or both of these Turkish pistols when traveling as President.[456] In an 1803 letter, Jefferson wrote to an innkeeper at Orange Courthouse, located between Monticello and Washington, D.C.:

> I left at your house . . . a pistol in a locked case, which no doubt was found . . . after my departure. I have written to desire either [Mr.] Randolph or [Mr.] Eppes to call on you for it, as they come on to Congress, to either of whom therefore be so good as to deliver it.[457]

James Madison, in a 1775 missive, extolled the marksmanship "skill of Virginians . . . with the rifle:"[458]

> The strength of this Colony will lie chiefly in the rifle-men of the Upland Counties, of whom we shall have great numbers . . . . The most inexpert hands rec[k]on it an indifferent shot to miss the bigness of a man's face

AUTOBIOGRAPHY OF JOHN ADAMS 257 (Lyman H. Butterfield et al. eds., Harvard Univ. Press 1961)).

453. *Id.* at 9 (citing 3 DIARY AND AUTOBIOGRAPHY OF JOHN ADAMS, *supra* note 452, at 258–59 n.6).

454. HALBROOK, FOUNDER'S SECOND AMENDMENT, *supra* note 70, at 318.

455. *Thomas Jefferson to John Payne Todd, 15 August 1816,* NAT'L ARCHIVES: FOUNDERS ONLINE, https://founders.archives.gov/documents/Jefferson/03-10-02-0206 [https://perma.cc/792A-D83F].

456. *From Thomas Jefferson to Paul Verdier, 9 October 1803*, NAT'L ARCHIVES: FOUNDERS ONLINE, https://founders.archives.gov/documents/Jefferson/01-41-02-0366 [https://perma.cc/9QX2-GECR].

457. *Id.* Jefferson's letter to Randolph also survives. *From Thomas Jefferson to Thomas Mann Randolph, 9 October 1803*, NAT'L ARCHIVES: FOUNDERS ONLINE, https://founders.archives.gov/documents/Jefferson/01-41-02-0365 [https://perma.cc/XAU8-7YHR].

458. CLAYTON E. CRAMER, ARMED AMERICA 151 (Thomas Nelson 2006) [hereinafter CRAMER, ARMED AMERICA].

> at the distance of 100 Yards. I am far from being among the best & should not often miss it on a fair trial at that distance.[459]

As a young boy, James Monroe was taught by his father how to hunt, and as he grew, he became rather successful at bringing home game for dinner.[460] In 1769, at age 11, James was enrolled at Campbell Academy, several miles from his home in Westmoreland County, Virginia. Each day, "[w]ell before dawn, James left for school, carrying his books under one arm with his powder horn under the other and his musket slung across his back."[461] Future Chief Justice John Marshall was a boarder at the school, and "[o]n occasion John accompanied James back to the Monroe farm, frequently stopping to hunt along the way."[462]

John Quincy Adams also owned a gun and liked to hunt.[463] As a young man, he made this entry in his diary: "Rain'd in the fore part of the day but cleared up in the afternoon: I went with my gun down upon the marshes; but had no sport."[464] On another occasion he noted: "Just before dark I went out with the gun, for half an hour, but saw no game."[465] As an older man, while stationed abroad, he wrote to his younger brother, Thomas Boylston Adams, asking that he instruct John Quincy's boys in the use of firearms:

> One of things which I wish to have them taught, and which no man can teach them better than you, is the use and management of firearms . . . . As you are a sportman I beg you occasionally from this time to take George out with you in your shooting excursions, teach him gradually the use of the musket, its construction, and the necessity of prudence in handling it; let him also learn the use of pistols, and exercise him at firing at a mark.[466]

459. *Id.* (quoting 1 JAMES MADISON, THE PAPERS OF JAMES MADISON 153 (William T. Hutchison & William M. E. Rachal eds., Univ. Chi. Press 1962)).

460. MCGRATH, *supra* note 444, at 8.

461. *Id.* at 9.

462. *Id.*

463. *See* John Quincy Adams, *29th.*, NAT'L ARCHIVES: FOUNDERS ONLINE, https://founders.archives.gov/documents/Adams/03-02-02-0002-0008-0030 [https://perma.cc/D3TJ-AZ53].

464. *Id.*

465. John Quincy Adams, *[October 1785]*, NAT'L ARCHIVES: FOUNDERS ONLINE, https://founders.archives.gov/documents/Adams/03-01-02-0007-0012 [https://perma.cc/EXX3-CK92].

466. John Quincy Adams, *From John Quincy Adams to Thomas Boylston Adams, 8 September 1810,* NAT'L ARCHIVES: FOUNDERS ONLINE,

In 1788, one year after the Constitution had been signed, and three years before the Bill of Rights and Second Amendment became effective, future President Andrew Jackson wrote about one of his trips saying, "I had my saddlehorse—a fine young stallion—and a stout pack-mare carrying my personal effects."[467] "For arms, he carried a pair of pistols in saddle holsters, a pistol worn on his belt, and a new rifle."[468] That's four firearms, in case you were not counting.

As a judge, when the sheriff and posse could not capture a wrongdoer who faced them down, Jackson asked the sheriff to summon him to make the arrest, adjourned court for ten minutes, and at pistol point captured the culprit.[469] In his will, Jackson made special bequests of some of his prized possessions, including three swords that had been presented to him, and "pistols given him by General Lafayette," which he bequeathed to Lafayette's son.[470] These instances of the early Presidents and Founders possessing and using firearms for private, non-militia purposes are not exhaustive, but are representative.[471]

Though traditional practices are often not recorded, we have this from the eminent legal and constitutional scholar, teacher, and judge St. George Tucker in 1803: "In many parts of the United States, a man no more thinks, of going out of his house on any occasion, without his rifle or musket in his hand, than an European fine gentleman without his sword by his side."[472]

As early as 1747, Benjamin Franklin observed that "most People hav[e] a Firelock of some kind or other already in their Hands."[473]

Further contemporaneous testimony that people were already well-armed for private purposes is provided by Representative James "Left Eye" Jackson of Georgia, who commented during the 1790 debates over what became the Militia Acts of 1792:

https://founders.archives.gov/documents/Adams/99-03-02-1850 [https://perma.cc/ER48-946L].

467. H. W. BRANDS, ANDREW JACKSON: HIS LIFE AND TIMES 54 (Anchor Books 2006).

468. *Id*.

469. ROBERT V. REMINI, THE LIFE OF ANDREW JACKSON 43–44 (2011).

470. *Id.* at 348.

471. For some additional examples, *see* HALBROOK, THE RIGHT TO BEAR ARMS, *supra* note 76, at 198–201.

472. 5 WILLIAM BLACKSTONE, COMMENTARIES app. 19.

473. Benjamin Franklin, *Form of Association, 24 November 1747*, NAT'L ARCHIVES: FOUNDERS ONLINE, https://founders.archives.gov/documents/Franklin/01-03-02-0092 [https://perma.cc/T7BA-WMNU].

> Against a motion to delete the requirement in the bill that every man "provide himself" with arms and insert that every man "shall be provided" with arms, Jackson explained that "most of the citizens of America possessed and used guns. *In Georgia and in the back country they were useful to procure food, and were to be met with in every House.* He had no doubt but the people would supply themselves fully, without the interference of the Legislature. . . . "[474]

Not only were guns widely possessed and used, but possession and use were both an individual right and useful for militia duty.[475] "Jackson agreed 'that every citizen was not only entitled to carry arms, but also in duty bound to perfect himself in the use of them, and thus become capable of defending his country.'"[476]

Studies of firearms ownership and use, both in colonial times and the early republic, show that guns were commonplace and frequently used. A review of at least eight separate studies of probate inventories of estates during the colonial era and early republic found that "[g]uns are found in 50–73% of the male estates in each of the eight databases and in 6–38% of the female estates in each of the first four databases."[477] The authors concluded that "[g]un ownership is particularly high compared to other common items."[478] A national sample of inventories for the year 1774 showed that "guns are listed in 54% of estates, compared to only 30% of estates listing any cash, 14% listing swords or edged weapons, 25% listing Bibles, 62% listing any book, and 79% listing any clothes."[479]

Professor Clayton E. Cramer has written two books demonstrating the prevalence and widespread use of firearms in colonial times, the early republic, and the nineteenth century.[480] He also cites numerous studies of

474. HALBROOK, THE RIGHT TO BEAR ARMS, *supra* note 76, at 194 (emphasis added) (citations omitted).

475. *See id.*

476. *Id.* at 195.

477. James Lindgren & Justin L. Heather, *Counting Guns in Early America*, 43 WM. & MARY L. REV. 1777, 1778 (2002).

478. *Id.*

479. *Id.* These findings may be given particular credence given the lead author's stated aversion to firearms. *See* James Lindgren, *Fall from Grace: Arming America and the Bellesiles Scandal*, 111 YALE L.J. 2195, 2196 (2002) [hereinafter Lindgren, *Fall from Grace*] (reviewing MICHAEL A. BELLESILES, ARMING AMERICA: THE ORIGINS OF A NATIONAL GUN CULTURE (2000)).

480. CRAMER, ARMED AMERICA, *supra* note 458; CLAYTON E. CRAMER, LOCK, STOCK, AND BARREL: THE ORIGINS OF AMERICAN GUN CULTURE (2018) [hereinafter CRAMER, LOCK, STOCK, AND BARREL].

inventories of estates, showing the widespread ownership of firearms.[481] Cramer quotes from a wide range of original sources demonstrating that firearms not only were commonly possessed for militia purposes, but they also were widely available and used so often for other purposes that generally their use was not remarked on.[482] At the very inception of Plymouth Colony in 1620, "a party of twenty men went ashore at Cape Cod" and each person carried a firearm.[483] Plymouth and Massachusetts Bay colonies celebrated important occasions, such as comings and goings of dignitaries, by firing guns.[484] So entrenched was the gun culture that in 1635, Massachusetts Bay prohibited brass farthings (a low-value coin) as currency, and substituted readily available musket bullets "to pass for farthings"—testifying to their availability and utility.[485]

Cramer also describes archaeological evidence in Virginia of widespread possession of guns.[486] Reports of excavations in 1995 through 1997 found:

> [T]he dig had recovered parts of at least eight different matchlocks, one snaphaunce pistol, and one other snaphaunce, six musket rests, two bullet moulds, a musket scourer, 2,807 pieces of lead shot, 223 bullets (defined as lead shot over 10mm diameter, but excluding artillery projectiles), at least 30 bandoliers, nine gunflints, and a bullet bag.[487]

Even Native Americans were well-armed with firearms from early colonial times.[488]

481. *See generally* CRAMER, ARMED AMERICA, *supra* note 458; CRAMER, LOCK, STOCK, AND BARREL, *supra* note 480.

482. *See generally* CRAMER, ARMED AMERICA, *supra* note 458; CRAMER, LOCK, STOCK, AND BARREL, *supra* note 480.

483. CRAMER, ARMED AMERICA, *supra* note 458, at 57 (citing William Bradford, *A Relation, or Journal, of the Beginning and Proceedings of the English Plantation settled at Plymouth*, *in* THE STORY OF THE PILGRIM FATHERS, 1606–1623 A.D. AS TOLD BY THEMSELVES, THEIR FRIENDS, AND THEIR ENEMIES 432 (Edward Arber, ed., 1897)). Cramer notes that "Forty-one adult men signed the Mayflower Compact, and twenty were ashore with guns, with at least two guns remaining on the ship. We therefore know that there were guns for *at least* half of the men at Plymouth." *Id.* (citation omitted).

484. *Id.* at 59. Cramer cites several examples.

485. *Id.* (quoting JOHN WINTHROP, WINTHROP'S JOURNAL: "HISTORY OF NEW ENGLAND" 1:148 (James Kendall Hosmer, ed. 1908)).

486. *Id.* at 60–61.

487. *Id.* at 61 (citations omitted).

488. DAVID J. SILVERMAN, THUNDERSTICKS: FIREARMS AND THE VIOLENT TRANSFORMATION OF NATIVE AMERICA 21–154 (2016) (telling the story of the arming

Second Amendment scholar Stephen Halbrook has noted in a recent book that "[i]n 1807, Aaron Burr was tried for treason, of which he [was] acquitted, based on an alleged conspiracy to create a separate country in [what was then called] the Southwest."[489] Halbrook relates:

> In response to claims that he met with a number of armed men in the course of the conspiracy, his defense attorney made an argument that illustrated the widespread use of firearms in the United States:
>
> > Rifles, shot guns[,] and fowling pieces are used commonly by the people of this country in hunting and for domestic purposes; they are generally in the habit of pursuing game. In the upper country every man has a gun; a majority of the people have guns everywhere, for peaceful purposes. Rifles and shot guns are no more evidence of military weapons than pistols or dirks used for personal defence, or common fowling pieces kept for the amusement of taking game. It is lawful for every man in this country to keep such weapons.[490]

One celebrated (and later notorious) book, *Arming America,* by Michael Bellesiles, wrongly claimed that guns were rare in early America, i.e., that there was no longstanding tradition of firearms use for private purposes.[491] Bellesiles claimed in his book that "the vast majority of those living in the British North American colonies had no use for firearms, which were costly, difficult to locate and maintain, and expensive to use."[492] As summarized by James Lindgren, in an article describing Bellesiles' claims:

> According to Bellesiles, in seventeenth[], eighteenth[], and early nineteenth[] century America there were very few guns. Privately owned guns were mostly in poor working condition. By law, guns were not kept in the home but rather stored in central armories, and guns were too expensive for widespread private ownership. He even claims that men generally were unfamiliar with guns and that they did not want guns—preferring axes and knives instead, in part because guns were so

of the Native tribes in pre-revolutionary times). The colonists—British, French, Dutch, and to a lesser degree other nationalities—carried on an extensive trade in firearms, ammunition, and gunsmithing services with the tribes, beginning as early as the 1620s and expanding enormously as time went on. *Id.*

489. HALBROOK, THE RIGHT TO BEAR ARMS, *supra* note 76, at 212.

490. *Id.* (quoting DAVID ROBERTSON, REPORTS OF THE TRIALS OF COLONEL AARON BURR (LATE VICE PRESIDENT OF THE UNITED STATES), FOR TREASON, AND FOR A MISDEMEANOR 582 (Philadelphia: Hopkins & Earle, 1808)).

491. BELLESILES, *supra* note 479.

492. *Id.* at 110.

> inaccurate that they were of little use. He argues that few settlers hunted, and implies that axes made very good weapons in hunting. According to *Arming America*, in battle "the ax [was often considered] the equal of a gun."[493]

But in order to reach those false conclusions, Bellesiles had to invent or misrepresent sources on a breathtaking scale, causing an investigation, which led to Bellesiles having to resign from his faculty position at Emory University and being stripped of the Bancroft Prize, which he had been awarded for his book.[494]

The Founding generation and the many generations that followed knew how integral firearms were to American life. Firearms were commonplace; they were everywhere. Even children carried them to and from school.[495] After noting that Locke's influential *Second Treatise of Government* invariably involved an appeal to arms in order "to alter or abolish tyrannous government," Yale Law Professor Akhil Amar observed that "[t]o Americans in 1789, this was not merely speculative theory. It was the lived experience of the age."[496] The everyday exercise of their right to arms for private purposes was an equally deeply lived experience for the colonists and Founding generation.

The *NYSRPA* Linguists' Brief contends that "[n]ewly available corpus linguistics evidence cautions against expanding the Second Amendment to entitle civilians to carry loaded guns in public places whenever they so choose."[497] But counting of word occurrences simply cannot overcome the robust historical record demonstrating that Americans during the Founding were legally free to own and carry arms of all kinds privately, did so routinely, and had done so since the colonies were founded. To imagine that the Founders, ratifiers, and later generations meant the Second Amendment to leave that private right unprotected is simply untenable.

493. Lindgren, *Fall from Grace*, *supra* note 479.

494. *Id.*; CRAMER, ARMED AMERICA, *supra* note 458, at x-xvii (telling the story of Bellesile's exposure).

495. *See*, *e.g.*, BURLEIGH, *supra* note 452 (quoting 3 DIARY AND AUTOBIOGRAPHY OF JOHN ADAMS, *supra* note 452, at 258-59 n.6); MCGRATH, *supra* note 444, at 8-10.

496. AKHIL REED AMAR, THE BILL OF RIGHTS 47 (2000).

497. *NYSRPA* Linguists' Brief, *supra* note 28, at 17; *see also* Bruen Linguists' Brief, *supra* note 30, at 4.

D. *Corpus Linguistics Ignores the Ideas Prevailing When the United States Was Founded*

As noted, the distinction between an alleged collective right and an individual right did not emerge until the twentieth century, and it was not meaningfully adopted by federal appellate courts until the end of the twentieth century. Even then, the collective right construct was not judicially viewed as a "right to serve in the militia," as the *NYSRPA* Goldfarb Brief urges, but as a right possessed by the states.[498] To the Founding generation, any contention that they as individuals did not have the right to keep and carry arms would have been inconceivable. That is especially true given the way they thought about rights.

The members of the Founding generation were products of the eighteenth century Enlightenment and rationalist intellectual universe.[499] They were heavily influenced by Locke's *Second Treatise of Government*, which argued that natural law and natural rights were discoverable by reason.[500] Thus, the Bill of Rights did not create or bestow rights; it merely recognized rights that already existed.[501] As described by the late Harvard

498. *NYSRPA* Goldfarb Brief, *supra* note 28. The reasoning behind the right belonging to the states was "the Second Amendment guarantees a collective rather than an individual right." United States v. Warin, 530 F.2d 103, 106 (6th Cir. 1976), *cert. denied*, 426 U.S. 948 (1976). "Because the Second Amendment guarantees the right of the states to maintain armed militia, the states alone stand in the position to show legal injury when this right is infringed." Hickman v. Block, 81 F.3d 98, 102 (9th Cir. 1996), *abrogated by* Nordyke v. King, 563 F.3d 439 (9th Cir. 2010), *vacated*, 611 F.3d 1015 (9th Cir. 2010). So even the collective right theory does not support Goldfarb's position that the Second Amendment protects a right to serve in the militia.

499. Richard J. Arneson, *American Constitutionalism*, BRITANNICA, https://www.britannica.com/topic/political-philosophy/American-constitutionalism [https://perma.cc/2WX3-HR4G].

500. *See id.*; *see also* JOHN LOCKE, SECOND TREATISE OF GOVERNMENT § 57 (Jonathan Bennett 2017) (1689), https://www.earlymoderntexts.com/assets/pdfs/locke1689a.pdf [https://perma.cc/9CYP-R44H].

501. *See* United States v. Cruikshank, 92 U.S. 542, 553 (1875) (stating that the right to keep and bear arms "is not granted by the Constitution; neither is it in any manner dependent upon that instrument for its existence"). The *NYSRPA* Linguists' Brief takes the opposite position: "Hence, corpus linguistics can shed considerable light on whether the phrase 'keep and bear arms' was most commonly understood at the Founding to *confer* an individual right." *NYSRPA* Linguists' Brief, *supra* note 28, at 15 (emphasis added). Although at present we are less inclined to speak of God-given natural law, the tradition has existed well past the Founding period. Martin Luther King, Jr. declared in his Letter from the Birmingham Jail:

Professor Bernard Bailyn, an eminent intellectual historian of the American founding:

> It is not simply that the great *virtuosi* of the American Enlightenment—Franklin, Adams, Jefferson—cited the classic Enlightenment texts and fought for the legal recognition of natural rights and for the elimination of institutions and practices associated with the *ancien régime*. They did so; but they were not alone. The ideas and writings of the leading secular thinkers of the European Enlightenment—reformers and social critics like Voltaire, Rousseau, and Beccaria as well as conservative analysts like Montesquieu—were quoted everywhere in the colonies, by everyone who claimed a broad awareness. In pamphlet after pamphlet the American writers cited Locke on natural rights and on the social and governmental contract, Montesquieu and later Delolme on the character of British liberty and on the institutional requirements for its attainment, Voltaire on the evils of clerical oppression, Beccaria on the reform of criminal law, Grotius, Pufendorf, Burlamaqui, and Vattel on the laws of nature and of nations, and on the principles of civil government.
>
> The pervasiveness of such citations is at times astonishing.[502]

Though there were other influences on their thinking, such as the writings of Greek and Roman antiquity, the English common law, New England Puritan covenant theology, and the English opposition radicals of the early eighteenth century, virtually no scholar doubts that Enlightenment writers wielded profound influence on the way the Founders thought about fundamental rights.[503]

The Founders' interest in and adoption of the ideas of the great Italian Enlightenment author Cesare Beccaria illustrate the point.[504] Beccaria was

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> A just law is a manmade code that squares with the moral law or the law of God. An unjust law is a code that is out of harmony with the moral law. To put it in the terms of St. Thomas Aquinas: An unjust law is a human law that is not rooted in eternal and natural law.

Martin Luther King, Jr., *Letter from Birmingham Jail* (April 16, 1963), https://letterfromjail.com/ [https://perma.cc/XD5F-VEU2].

502. BERNARD BAILYN, THE IDEOLOGICAL ORIGINS OF THE AMERICAN REVOLUTION 27 (Belknap Press, 2d ed. 1992).

503. *See generally id.*

504. *See* Mark W. Smith, *Enlightenment Thinker Cesare Beccaria and His Influence on the Founders: Understanding the Meaning and Purpose of the Second Amendment's*

an ardent foe of disarming private citizens, writing that laws forbidding the carrying of arms:

> [D]isarm only those who are neither inclined nor determined to commit crimes. At the same time, can those who have the courage to violate the most sacred laws of humanity and the most important laws of the criminal code be expected to respect the lesser and purely arbitrary laws, which can be broken with such ease and impunity, and which, if enforced, would take away personal liberty—so dear to man, so dear to the enlightened legislator—and subject the innocent to all the annoyances that the guilty deserve? These laws place the assaulted at a disadvantage and favor the assailants, and rather than reduce the number of murders they increase it, since an unarmed man may be attacked with greater confidence than an armed man.[505]

Thomas Jefferson took the time to transcribe this quotation from Beccaria (and more) in the original Italian in his commonplace book.[506] John Adams wrote out a passage from Beccaria in his diary in 1770, quoted from Beccaria in his defense of the British soldiers following the Boston Massacre, and later acquired his own copy of *On Crimes and Punishments*.[507] In 1792, after the Revolutionary War fighting had ceased, James Madison was entrusted with the task of compiling a list of books which Congress ought to acquire for members' use.[508] In January 1793, Madison submitted his report which included the *Opere diverse di Cesare Beccaria* in three parts, which shows the esteem in which Beccaria was held by the Founders.[509]

Right to Keep and Bear Arms, 2020 PEPP. L. REV. 71, 76–77 (2020) [hereinafter Smith, *Enlightenment Thinker Cesare Beccaria and His Influence on the Founders*]

505. CESARE BECCARIA, ON CRIMES AND PUNISHMENTS AND OTHER WRITINGS 78 (Aaron Thomas ed., Aaron Thomas & Jeremy Parzen trans., Univ. Toronto 2008).

506. *See* Smith, *Enlightenment Thinker Cesare Beccaria and His Influence on the Founders*, *supra* note 504, at 75–76; THOMAS JEFFERSON, JEFFERSON'S LEGAL COMMONPLACE BOOK (David Thomas Konig & Michael P. Zuckert, eds., Princeton Univ. Press 2019).

507. John Adams, *June 1770: From the Diary of John Adams*, NAT'L ARCHIVES: FOUNDERS ONLINE, https://founders.archives.gov/documents/Adams/01-01-02-0014-0003 [https://perma.cc/US4Y-LV3S] (quoting 1 DIARY AND AUTOBIOGRAPHY OF JOHN ADAMS, *supra* note 452, at 350-55).

508. Gaye Wilson, Anna Berkes & John Ragosta, *James Madison*, THOMAS JEFFERSON: MONTICELLO, https://www.monticello.org/research-education/thomas-jefferson-encyclopedia/james-madison/ [https://perma.cc/PSB8-PC6W] (May 9, 2020).

509. *See Report on Books for Congress, [23 January] 1783*, NAT'L ARCHIVES: FOUNDERS ONLINE, https://founders.archives.gov/documents/Madison/01-06-02-0031 [https://perma.cc/YD4J-TS9T].

In 1775, Alexander Hamilton exemplified the natural rights position when he proclaimed that "[t]he sacred rights of mankind are not to be rummaged for, among old parchments, or musty records. They are written, as with a sun beam, in the whole *volume* of human nature, by the hand of the divinity itself; and can never be erased or obscured by mortal power."[510]

Philip Livingston, a New York Delegate to the Continental Congress and signer of the Declaration of Independence, in a 1774 pamphlet asked another pamphleteer, "Do you mean, my Reverend Sir, that any right . . . if it be not confirmed by some statute law, is not a legal right . . . ?"[511] Livingstone emphatically rejected that position, avowing that legal rights are "those rights which we are entitled to by the eternal laws of right reason."[512]

Jefferson was thoroughly imbued with the natural law and natural rights outlook. In his draft instructions to the Virginia delegation attending the First Continental Congress, Jefferson stated that an address by them to King George III regarding grievances should be presented with a "freedom of language and sentiment which becomes a free people, claiming their rights as derived from the laws of nature, and not as the gift of their chief magistrate [that is, the British king]."[513] Two years later, his draft of the Declaration of Independence would be finalized at the Second Continental Congress to read: "We hold these truths to be self-evident, that all men are created equal, that *they are endowed by their Creator with certain unalienable Rights*, that among these are *Life*, Liberty and the pursuit of Happiness. That to *secure* these rights, Governments are instituted among Men . . . ."[514]

The most important of those natural rights was the right to defend one's life and the lives of others.[515] The Founders were very familiar with

510. Alexander Hamilton, *The Farmer Refuted, &c., [23 February] 1775*, NAT'L ARCHIVES: FOUNDERS ONLINE, https://founders.archives.gov/documents/Hamilton/01-01-02-0057 [https://perma.cc/B8PQ-2H5F].

511. PHILIP LIVINGSTON, THE OTHER SIDE OF THE QUESTION: OR, A DEFENCE OF THE LIBERTIES OF NORTH-AMERICA 9 (1774).

512. *Id.*

513. Thomas Jefferson, *Draft of Instructions to the Virginia Delegates in the Continental Congress (MS Text of* A Summary View*, &c.), [July 1774]*, NAT'L ARCHIVES, FOUNDERS ONLINE, https://founders.archives.gov/documents/Jefferson/01-01-02-0090 [https://perma.cc/4B94-468G].

514. THE DECLARATION OF INDEPENDENCE para. 2 (U.S. 1776) (emphasis added).

515. *See The Declaration of Independence and Natural Rights: Thomas Jefferson, Drawing on the Current Thinking of His Time, Used Natural Rights Ideas to Justify Declaring Independence from England*, CONST. RTS. FOUND., https://www.crf-usa.org/foundations-of-our-constitution/natural-rights.html [https://perma.cc/F3LS-AABR].

William Blackstone's *Commentaries on the Laws of England*, a seminal and authoritative four-volume treatise first published in 1765.[516] Blackstone's "works constituted the preeminent authority on English law for the founding generation."[517] Under the heading "The Rights of Persons," Blackstone identified "three principal or primary articles; the right of personal security, the right of personal liberty, and the right of private property."[518] The right of personal security includes "a person's legal and uninterrupted enjoyment of his life," and Blackstone declared that "[l]ife is the immediate gift of God, a right inherent by nature in every individual."[519]

The constitution of England, according to Blackstone, "established certain other auxiliary subordinate rights of the subject, which serve principally as outworks or barriers to protect and maintain inviolate the three great and primary rights of personal security, personal liberty, and private property."[520] He stated that:

> The fifth and last auxiliary right of the subject . . . is that of *having arms for their defence*, suitable to their condition and degree, and such as are allowed by law. Which is also declared by the same statute, 1 W. and M. st. 2, c. 2, and is indeed a public allowance, under due restrictions, of the natural right of resistance and self-preservation, when the sanctions of society and laws are found insufficient to restrain the violence of oppression.[521]

Two things are important to note about the passages from Blackstone just quoted. First, Blackstone was working within the eighteenth century Enlightenment conception of rights as being natural rights. The right to life is an "immediate gift from God, a right inherent . . . in every individual."[522] The right to arms is "declared" by the statute, not created by it, and is an allowance of "the natural right of resistance and self-preservation."[523] Second, all of the rights discussed in these passages are individual rights. They are the rights of persons, and the right to arms exists to foster self-

516. *See* Alden v. Maine, 527 U.S. 706, 715 (1999).

517. *Id.*

518. 1 WILLIAM BLACKSTONE, COMMENTARIES *129 (spelling and punctuation modernized).

519. *Id.*

520. *Id.* at *141.

521. *Id.* at *143–44 (emphasis added).

522. *Id.* at *129.

523. *Id.* at *143–44.

preservation.[524] So, Blackstone expressly founded the individual right to arms on natural rights.[525] There is no hint that this right has anything "collective" about it, or that the right to arms exists for military purposes. In fact, it comes into play when the sanctions of laws and society fail to protect the individual.

The Constitution as promulgated in 1787 did not originally have a Bill of Rights.[526] In the ratifying conventions in some states, the ratifiers urged the First Congress to adopt amendments that would codify certain rights that the people believed they already possessed, either as natural rights, or as historical rights and liberties they had enjoyed as Englishmen.[527] In the Virginia ratifying convention, twenty declarations of rights were proposed.[528] The first article expressly declared: "That there are certain *natural rights*, of which men, when they form a social compact, cannot deprive or divest their posterity; among which are the *enjoyment of life and liberty*, with the means of acquiring, possessing, and *protecting property*, and pursuing and obtaining happiness and *safety*."[529]

Virginia's proposals contained a more extended version of what ultimately became the Second Amendment:

> That the people have a right to keep and bear arms; that a well regulated militia, composed of the body of the people, trained to arms, is the proper, natural, and safe defence of a free state. That standing armies in time of peace are dangerous to liberty, and therefore ought to be avoided, as far as the circumstances and protection of the community

524. *Id.* at *123–44.

525. Thomas Paine, author of *Common Sense,* the most influential pamphlet in American Revolutionary times, was also a natural rights thinker. *See, e.g.*, THOMAS PAINE, THE RIGHTS OF MAN: BEING AN ANSWER TO MR. BURKE'S ATTACK ON THE FRENCH REVOLUTION 49–54 (Penguin Classics 1985) (1791).

526. Jeffrey Rosen & David Rubenstein, *The Declaration, the Constitution, and the Bill of Rights*, NAT'L CONST. CTR., https://constitutioncenter.org/interactive-constitution/white-papers/the-declaration-the-constitution-and-the-bill-of-rights [https://perma.cc/9TUH-UE2J].

527. *Id.*

528. *Virginia Ratifying Convention, Proposed Amendments to the Constitution*, UNIV. OF CHI., https://press-pubs.uchicago.edu/founders/documents/v1ch14s43.html [https://perma.cc/W3W3-NNDH].

529. 1 ST. GEORGE TUCKER, BLACKSTONE'S COMMENTARIES: WITH NOTES OF REFERENCE TO THE CONSTITUTION AND LAWS OF THE FEDERAL GOVERNMENT OF THE UNITED STATES AND OF THE COMMONWEALTH OF VIRGINIA 161–62 (1803) [hereinafter TUCKER'S BLACKSTONE] (emphasis added).

> will admit; and that in all cases the military should be under strict subordination to, and governed by the civil power.[530]

This proposed amendment confirms that "the people *have* a right to keep and bear arms,"[531] just as the Second Amendment states that "*the right* of the people"[532] shall not be infringed. In other words, the Founders conceived of the right as a natural right that already existed, independently of whether it was mentioned in the Constitution.

The right to arms was intimately bound up with the inherent, natural right to self-defense, which was often considered the quintessential, supreme natural right. Blackstone wrote that because "the future process of law is by no means an adequate remedy for injuries accompanied with force," the law permits an individual "immediately to oppose one violence with another. *Self-defence, therefore, as it is justly called the primary law of nature*, so it is not, neither can it be in fact, taken away by the law of society."[533]

The Founders held the same view of the natural right to self-defense. John Adams acted as the attorney *defending* eight British troops in the trial following the Boston Massacre in 1770.[534] The residents of Boston whom the troops attacked were armed with clubs.[535] But rather than saying that this alone gave the troops the right to attack the citizens, Adams acknowledged, "*Here every private person is authorized to arm himself*; and on the strength of this authority, I do not deny *the inhabitants had a right to arm themselves at that time, for their defence.*"[536] Adams instead based his plea of justifiable homicide in self-defense on Blackstone and the law of nature. He stated that the basis is found in "self-love":

> which is not only our indisputable right, but our clearest duty. By the laws of nature, this is interwoven in the heart of every individual. God Almighty, whose law we cannot alter, has implanted it there . . . . It is the first and strongest principle in our nature. Justice Blackstone calls it "The primary canon in the law of nature."[537]

530. *Id.* at 164.

531. *Id.* (emphasis added).

532. U.S. CONST. amend. II (emphasis added).

533. 3 WILLIAM BLACKSTONE, COMMENTARIES *4 (emphasis added) (spelling and punctuation modernized).

534. John Adams, *Adams' Argument for the Defense*, *supra* note 103.

535. *Id.*

536. *Id.*

537. John Adams, *First Day's Speech in Defence of the British Soldiers Accused of*

In the separate trial of Captain Preston, the commanding officer of those eight troops, Adams argued that the right of self-defense is a natural right that cannot be taken away by civil society.[538] In his *Notes of Authorities for His Argument for the Defense* in October 1770, in "Captn. Prestons Case," Adams included the point, "[s]elf Defence, the primary Canon of the Law of Nature," almost certainly again referring to Blackstone.[539] He also included in his notes a point referring to "Foster 273."[540] This is an important English legal treatise from the mid-1700s that was popularly known as "Foster's Crown Cases."[541] On page 273, the following passage appears:

> In the Case of Justifiable Self-Defense the injured Party may repel Force with Force in Defence of his Person, Habitation, or Property, against one who manifestly intendeth and endeavoureth with Violence or Surprize to commit a known Felony upon either . . . . and if in a Conflict between them He happeneth to Kill, such Killing is Justifiable. *The Right of Self-Defence in these Cases is founded in the Law of Nature, and is not nor can be superseded by any Law of Society.*[542]

St. George Tucker, the eminent Founding Era scholar and judge mentioned above, published his own edition of Blackstone, with notes and commentary tailoring it for an American audience.[543] In discussing "[t]he restraints imposed on the legislative powers of the federal government," he quoted the Second Amendment, characterized it as "the true palladium of

Murdering Attucks, Gray and Others, in the Boston Riot of 1770, *in* 6 MASTERPIECES OF ELOQUENCE 2573 (Mayo W. Hazeltine, et al. eds., 2010) (1923).

538. John Adams, *Adams' Notes of Authorities for His Argument for the Defense: October 1770*, NAT'L ARCHIVES: FOUNDERS ONLINE [hereinafter John Adams, *Adams' Notes of Authorities for His Arguments for the Defense*], https://founders.archives.gov/documents/Adams/05-03-02-0001-0003-0007 [https://perma.cc/4GGG-4JT9].

539. *Id.* (citing 3 WILLIAM BLACKSTONE, COMMENTARIES *4).

540. *Id.* (citing MICHAEL FOSTER, A REPORT OF SOME PROCEEDINGS ON THE COMMISSION OF OYER AND TERMIRER AND GOAL DELIVERY FOR THE TRIAL OF THE REBELS IN THE YEAR 1746 IN THE COUNTY OF SURRY, AND OF OTHER CROWN CASES 273 (1762)).

541. *See generally* MICHAEL FOSTER, A REPORT OF SOME PROCEEDINGS ON THE COMMISSION FOR THE TRIAL OF THE REBELS IN THE YEAR 1746, IN THE COUNTY OF SURRY: AND OF OTHER CROWN CASES (1762).

542. John Adams, *Adams' Notes of Authorities for His Arguments for the Defense*, *supra* note 538 (emphasis added).

543. TUCKER'S BLACKSTONE, *supra* note 529.

liberty," and immediately noted, "The right of self defence is the first law of nature."[544]

In short, the right to armed self-defense was viewed by the Founders as a right that could not be taken away by any law of civil society. That natural right was the right they expressly confirmed in the Second Amendment.

So, how do the linguists square the Founders' conception of rights as natural rights, as the rights of individuals to self-defense, as the right to have and use arms to engage in defense of self, others, or property, all in a non-military, civil context, with their late twentieth century formulation that it is a merely collective, military right, or a "right to serve in the militia"? How do they reconcile their "counting of hits" methodology with the deep philosophical principles that the Founders actually embraced, articulated, and lived? Answer: they do not.

Relying on word counts is an inadequate substitute for history, tradition, and engaging with the known beliefs and principles of the men who wrote and ratified our Founding documents, including the Second Amendment.

E. *Corpus Linguistics Has Not Been Broadly Embraced by the Courts*

So far, perhaps as a result of the deficiencies described above, corpus linguistics has made relatively few inroads (outside of Utah) into actual judicial decision-making. The Utah connection likely arises because Justice Thomas Lee of the Utah Supreme Court is a thought leader in the corpus linguistics space, and several corpora are maintained at BYU.[545]

Most of the cases employing or mentioning corpus linguistics are state court cases. When this Article was prepared, there were 27 published state court appellate cases mentioning, using, or rejecting corpus linguistics.[546]

544. *Id.* at 290, 300.

545. *See* BYU L. & CORPUS LINGUISTICS, *supra* note 236.

546. Appalachian Power Co. v. State Corp. Comm'n, 876 S.E.2d 349 (Va. 2022); Athens v. McClain, 168 N.E.3d 411 (Ohio 2020); Brady v. Park, 445 P.3d 395 (Utah 2019); Craig v. Provo City, 389 P.3d 423 (Utah 2016); *In re* Estate of Heater, 498 P.3d 883 (Utah 2021); Exotic Motors v. Zurich Am. Ins. Co., 597 S.W.3d 767 (Mo. Ct. App. 2020); Fire Ins. Exch. v. Oltmanns, 416 P.3d 1148 (Utah 2018); *In re* Adoption of Baby E.Z., 266 P.3d 702 (Utah 2011); Muddy Boys, Inc. v. Dep't of Com., Div. of Occupational and Pro. Licensing, 440 P.3d 741 (Utah Ct. App. 2019); Murray v. BEJ Minerals, LLC, 464 P.3d 80 (Mont. 2020); Napolitano v. St. Joseph Cath. Church, 308 So.3d 274 (Fla.

Often, the mention is minor; for example, citing an article with corpus linguistics in its name, or thanking an amicus who submitted a brief using corpus linguistics research.[547] Of these 27 cases, 13 were Utah state court cases, 3 were Idaho cases, 3 were Michigan cases, and there was 1 each from the Florida, Georgia, Minnesota, Missouri, Montana, Ohio, Vermont, and Virginia state courts.

The federal courts have had far fewer cases in which corpus linguistics has been used or even mentioned.[548] The U.S. Supreme Court has already rejected the word count methodology in *Heller,*[549] and has not relied on corpus linguistics arguments in any of its opinions (as of this writing).[550] Goldfarb has claimed that "[i]n recent years, individual members of [the Supreme] Court have relied on corpus analyses, or directly on corpus data,"

Dist. Ct. App. 5th 2020); Neese v. Utah Bd. of Pardons and Parole, 416 P.3d 663 (Utah 2017); Nelson v. State, 863 S.E.2d 61 (Ga. 2021); O'Hearon v. Hansen, 409 P.3d 85 (Utah Ct. App. 2017); People v. Harris, 885 N.W.2d 832 (Mich. 2016); People v. Stovall, No. 162425, 2022 WL 3007491 (Mich. July 28, 2022); Richards v. Cox, 450 P.3d 1074 (Utah 2019); Rouch World, LLC v. Dep't of C.R., No. 162482, 2022 WL 3007805 (Mich. July 28, 2022); Salt Lake City Corp. v. Haik, 466 P.3d 178 (Utah 2020); *In re* J.M.S., 280 P.3d 410 (Utah 2011); State v. Burke, 462 P.3d 599 (Idaho 2020); State v. Carter, 504 P.3d 179 (Utah Ct. App. 2022); State v. Gomez-Alas, 477 P.3d 911 (Idaho 2020); State v. Lantis, 447 P.3d 875 (Idaho 2019); State v. Misch, 256 A.3d 519 (Vt. 2021); State v. Rasabout, 356 P.3d 1258 (Utah 2015); State v. Thonesavanh, 904 N.W.2d 432 (Minn. 2017). The only case involving the right to keep and bear arms in which corpus linguistics was discussed is *State v. Misch*, 256 A.3d 519. Ultimately the Vermont Supreme Court declined to adopt a militia-only collective right view, affirming instead that, under the Vermont Constitution, the right is a limited individual one. *Id.* at 527. For a well-reasoned criticism of *Misch*, *see* Stephen P. Halbrook, *New Gun Rights Decision: State of Vermont v. Misch*, FEDERALIST SOC'Y BLOG (Apr. 13, 2021), https://fedsoc.org/commentary/fedsoc-blog/new-gun-rights-decision-state-of-vermont-v-misch [https://perma.cc/ZX8Q-9MW5].

547. *See Brady*, 445 P.3d at 427 n.109; *Nelson*, 863 S.E.2d at 377 n.4.

548. *See generally* Caesars Ent. Corp. v. Int'l Union of Operating Eng'rs Loc. 68 Pension Fund, 932 F.3d 91 (3d Cir. 2019); Lawrence v. First Fin. Inv. Fund V, LLC, 444 F. Supp. 3d 1313 (D. Utah 2020); Nycal Offshore Dev. Corp. v. United States, 148 Fed. Cl. 1 (2020); United States v. Scott, 990 F.3d 94 (2d Cir. 2021); United States v. Ward, 972 F.3d 364 (4th Cir. 2020) (corpus linguistics merely mentioned in a concurrence); United States v. Woodson, 960 F.3d 852 (6th Cir. 2020); Wilson v. Safelite Grp., Inc., 930 F.3d 429 (6th Cir. 2019); Wright v. Spaulding, 939 F.3d 695 (6th Cir. 2019).

549. *See* District of Columbia v. Heller, 554 U.S. 570, 636 (2008).

550. As previously noted, in *Facebook, Inc. v. Duguid*, Justice Alito mentioned corpus linguistics in a concurrence as possibly providing guidance on the "series-qualifier canon," but did not suggest it should be used to determine the meaning of constitutional language. 141 S. Ct. 1163, 1174–75 (2021).

in their opinions.[551] But it would be a stretch to say that any of the three opinions he cites amount to an endorsement of corpus linguistics.[552] Justice Alito cited a corpus linguistics analysis in a footnote in his dissenting opinion in *Bostock v. Clayton County*.[553] But this passing reference in a footnote in a statutory interpretation case to a study that supported the conclusion Justice Alito had already reached through standard legal analysis hardly amounts to an endorsement of corpus linguistics determining the meaning of constitutional terms.[554] Indeed, Justice Alito's footnote does not even contain the term "corpus linguistics."[555] Justice Thomas similarly has cited a study using corpus linguistics techniques alongside more conventional analysis of historical texts without mentioning expressly or commenting upon the utility of corpus linguistics.[556] In another case, Justice Thomas supported his claim that the phrase "expectation(s) of privacy" does not appear in "collections of early American English texts" by citing the Corpus of Historical American English, Google Books, and COFEA,[557] but Justice Thomas was simply making the point that Justice John Marshall Harlan II had invented the reasonable expectation of privacy test for the Fourth Amendment in the 1960s.[558] He did not purport to be conducting a corpus linguistics analysis to determine the meaning of words in the Constitution.[559] Indeed, he determined the "ordinary meaning" of "search" by consulting Founding Era dictionaries.[560]

Federal Courts of Appeals applying corpus linguistics searches are relatively few. The Third Circuit used a combination of dictionary definitions, case law, and corpus linguistics results from a search of the Corpus of Historical American English (all three of which agreed) to determine the meaning of the word "previously" in an ERISA amendment.[561]

551. *Corlett* Goldfarb Brief, *supra* note 239, at 8.

552. Other corpus linguistics advocates have also cited some of these opinions. *See Young* Corpus Linguistics Professors and Experts Brief, *supra* note 238, at 13–14.

553. 140 S. Ct. 1731, 1769 n.22 (2020) (Alito, J., dissenting).

554. *Id.*

555. *Id.*

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

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

558. *Id.* at 2237.

559. *See id.* at 2238.

560. *Id.*

561. Caesars Ent. Corp. v. Int'l Union of Operating Eng'rs Loc. 68 Pension Fund, 932 F.3d 91, 95 (3d Cir. 2019).

As discussed above, the Sixth Circuit in the *Wilson* case declined to employ corpus linguistics.[562] In *United States v. Woodson,* after citing three dictionary definitions of the disputed word, the Sixth Circuit mentioned that a corpus linguistics search, apparently by the court itself, of a contemporary database produced results consistent with the dictionary definitions.[563] In *Fulkerson v. Unum Life Insurance Company of America*, that court ran a sua sponte corpus search for "reckless driving" which, according to the court, "further supports our view," based on statutory and other sources, that the "ordinary meaning of 'crime' unambiguously includes reckless driving."[564] In *Wright v. Spaulding*, the Sixth Circuit invited the parties to submit supplemental briefs using COFEA, and two corpus linguistics amicus briefs were submitted as well.[565] Ultimately, the court agreed with the parties that "corpus linguistics turned out not to be the most helpful tool in the toolkit."[566] Outside the Third and Sixth Circuits, corpus linguistics is barely mentioned in the federal appellate courts.[567]

The articles and amicus briefs encouraging the use of corpus linguistics in the Second Amendment context may have begun to attract some judicial

562. Wilson v. Safelite Grp., Inc., 930 F.3d 429, 439 (6th Cir. 2019) (Thapar, J., concurring).

563. 960 F.3d 852, 855 (6th Cir. 2020). The corpus searched was the Corpus of Contemporary American English (COCA). *Id.*

564. 36 F.4th 678, 682 (6th Cir. 2022) (search of COCA between 1990 and 2018). In another 2022 case, the Sixth Circuit mentioned corpus linguistics in connection with determining the meaning of the word "sanctions," but the court merely performed a Westlaw and/or LEXIS search and reported a few of the results. Wesco Ins. Co. v. Roderick Linton Belfance, LLP, 39 F.4th 326, 337 (6th Cir. 2022).

565. 939 F.3d 695, 700 n.1 (6th Cir. 2019).

566. *Id.*

567. *See* United States v. Ward, 972 F.3d 364, 380 (4th Cir. 2020) (Gregory, C.J. concurring) (discussing problems with dictionary definitions and, though not applying corpus linguistics, citing Associate Chief Justice Thomas Lee's concurrence in *State v. Rasabout*, 365 P.3d 1258 (Utah 2015), as using a corpus linguistics approach); Douglass v. Nippon Yusen Kabushiki Kaisha, 46 F.4th 226, 252 (5th Cir. 2022) (Elrod, J., dissent) (citing a law review article containing corpus research on "linguistic drift" in the Due Process Clause); United States v. Rice, 36 F.4th 578, 583 n.6 (4th Cir. 2022) (concluding that a "person cannot commit the act of strangling without knowing or intending it," and then stating in a footnote that corpus linguistics "leads to the same result," without producing the data regarding corpus searches other than the number of hits on a search for "strangulation" during a certain time period); Kennedy v. Bremerton Sch. Dist., 4 F.4th 910, 952 (9th Cir. 2021) (Nelson, J., dissenting), *rev'd* 142 S. Ct. 2407 (2022) (citing an article utilizing corpus linguistics for the meaning of the Establishment Clause); Jones v. Governor of Florida, 975 F.3d 1016, 1104 (11th Cir. 2020) (Jordan, J., dissenting) (citing a law review article with "corpus linguistics" in its title).

attention, however. A panel of the Ninth Circuit hearing a Second Amendment challenge to California's restrictions on the ability of 18- to 20-year-olds to acquire firearms requested supplemental briefing on whether "the tool of corpus linguistics help[s] inform the determination of the original public meaning" of three phrases in the Second Amendment: "'A well regulated Militia'; 'the right of the people'; and 'shall not be infringed.'"[568] Both parties to the appeal expressed strong reservations about the utility of the corpus linguistics methodology,[569] and the Ninth Circuit ultimately "decline[d] to consider" the methodology.[570] The Ninth Circuit also cited two articles in a Second Amendment opinion that was later vacated and remanded in light of *Bruen*.[571]

As of this writing, there have been three decisions on the merits involving corpus linguistics in the lower federal courts. In *Lawrence v. First Financial Investment Fund V, LLC*, the Utah federal district court searched a modern corpus, apparently sua sponte, to determine what the words "collection office" meant in a Utah statute enacted in 1953.[572] The court found no usage of that term during the 1950s and a single irrelevant use in 1985.[573] The court therefore concluded that "the dictionary definitions of those terms provide the best information concerning their meaning."[574]

The Middle District of Florida, apparently without input from the parties, "searched the Corpus of Historical American English (COHA) to find uses of 'sanitation' between 1930 and 1944."[575] Of the 507 results, the court reported that "the most frequent usage of sanitation fit the primary sense described above: a positive act to make a thing or place clean," whereas "the least common usage—hovering around 5 [percent] of the data set—was of sanitation as a measure to maintain a status of cleanliness, or as

568. Order, *supra* note 264, at 1.

569. *Compare Jones* Appellants' Supplemental Brief, *supra* note 141, at 8–20, *with Jones* Appellees' Supplemental Brief, *supra* note 260, at 16–27 (noting that "corpus linguistics sources . . . may not 'reliably track ordinary people's judgments about meaning,'" and that interpreters "have to be careful not to conflate 'ordinary meaning' with 'most common meaning'").

570. Jones v. Bonta, 34 F.4th 704, 714 n.6 (9th Cir. 2022).

571. Duncan v. Bonta, 19 F.4th 1087 (9th Cir. 2022), *vacated*, 142 S. Ct. 2895 (2022) (citing Baron, *Corpus Evidence*, *supra* note 37).

572. 444 F. Supp. 3d 1313 (D. Utah 2020).

573. *Id.* at 1322 n.60.

574. *Id.*

575. Health Freedom Def. Fund, Inc. v. Biden, No. 8:21-cv-1693-KKM-AEP, 2022 WL 1134138, at *7 (M.D. Fla. Apr. 18, 2022)

a barrier to keep something clean."[576] The court did not provide the actual datasets resulting from the search, but nevertheless relied on these findings as one of four tools to arrive at its conclusion.[577]

In a case in the U.S. Court of Federal Claims,[578] the court resolved the issue of what the word "process" meant in 1868 by looking to passage-era dictionary definitions.[579] In a lengthy footnote, it was revealed that the court also performed its own corpus linguistics analysis, apparently without it having been raised by the parties.[580] The court concluded that "a corpus linguistic analysis of the term 'process' leads the [c]ourt to the same result as the passage-era dictionary definitions."[581]

In a later case, the Court of Federal Claims asked the parties at oral argument whether the use of corpus linguistics would be helpful in examining the phrase "application for admission" and "applicant" in the context of immigration and H-1B visas.[582] According to the court in a footnote, "both parties expressed concern," with plaintiffs' counsel stating, "I don't know that it would be particularly helpful to run such a search given the highly refined parameters in which the linguistic usage is being done in this case, having been defined by Congress in the statute."[583] Counsel for the government agreed, responding, "I don't think that we believe it's necessary in this case either."[584] The footnote revealed that the court ran a "preliminary corpus linguistics search" anyway, though it was not used in the main analysis in the opinion.[585]

F. *In Corpus We Trust? Not Likely*

The use of dictionaries from around the time of the Founding, such as Samuel Johnson's famous *A Dictionary of the English Language* (first published in 1755), or Noah Webster's *An American Dictionary of the English Language* (first published in 1828, not long after the Founding), has

576. *Id.*
577. *Id.* at *8.
578. Nycal Offshore Dev. Corp. v. United States, 148 Fed. Cl. 1 (2020).
579. *Id.* at 12.
580. *Id.* at 13 n.6.
581. *Id.*
582. ITServe All., Inc. v. United States, 161 Fed. Cl. 276, 291 n.7 (2022).
583. *Id.*
584. *Id*.
585. *Id*.

much to recommend it.[586] Not only were these men titans of scholarship, but their dictionaries were intended to be objective.[587] They had no axe to grind with respect to twenty-first century legal disputes. Furthermore, dictionaries in use at the Founding, and therefore their definitions, would have been familiar to those who drafted the Constitution and the Bill of Rights as well as to those Americans reading them.

But if corpus linguistics gains ground, there is a real risk that contemporary corpus research could suffer from bias. The *NYSRPA* Goldfarb Brief contends that "scholars (both legal and linguistic) . . . are less motivated to advance a policy agenda" than "gun-right advocates."[588] This is highly doubtful at best. The example of historian Bellesiles, discussed above, shows that political biases can lead even "scholars" to produce manipulated, even fraudulent, results, and prestigious historians to accept those results uncritically.[589]

One of the risks of using historical corpora, which are perhaps less likely to have built-in political biases, is that such a practice may pave the way for using corpus linguistics that draw on modern corpora that are more likely to be politically biased. A few courts have used searches of recent corpora in attempts to determine or confirm meaning.[590] That bias can occur either intentionally by groups that have an agenda, as a product of the way modern communications operate, or both.

What is more, unlike primary sources themselves, which are static documents, a corpus is a dynamic collection of documents that can be added to or subtracted from on an ongoing basis. The problem is compounded by

586. *See* SAMUEL JOHNSON, A DICTIONARY OF THE ENGLISH LANGUAGE (1755) [hereinafter JOHNSON, A DICTIONARY]; NOAH WEBSTER, AN AMERICAN DICTIONARY OF THE ENGLISH LANGUAGE (1828).

587. JOHNSON, A DICTIONARY, *supra* note 586; WEBSTER, *supra* note 586.

588. *NYSRPA* Goldfarb Brief, *supra* note 28, at 15–16.

589. *See* BELLESILES, *supra* note 479; *see also* Clayton E. Cramer, W*hat Clayton Cramer Saw and (Nearly) Everyone Else Missed*, HIST. NEWS NETWORK, https://historynewsnetwork.org/article/1185 [https://perma.cc/JY6U-74RF] (quoting highly favorable reactions by historians and others to Bellesiles' book).

590. *See, e.g.*, United States v. Woodson, 960 F.3d 852, 855 (6th Cir. 2020) (utilizing Corpus of Contemporary American English (COCA)); Caesars Ent. Corp. v. Int'l Union of Operating Eng'rs Loc. 68 Pension Fund, 932 F.3d 91, 95 (3d Cir. 2019) (using Corpus of Historical American English (COHA) from the 1970s and 1980s to determine meaning of word "previously" in ERISA amendment); Lawrence v. First Fin. Inv. Fund V, LLC, 444 F. Supp. 3d 1313, 1322 n.60 (D. Utah 2020) (using COHA)); Richards v. Cox, 450 P.3d 1074, 1091 n.10 (Utah 2019) (searching COCA and COHA for the meaning of "employment" around the year 1986).

the creation and publication of documents in the present-day that will be the basis for the corpora of the future. If courts start relying on corpus data as a regular part of constitutional and statutory interpretation, partisans will have strong incentives to try to optimize the corpus data in their favor. A similar argument has been used to caution against too-ready use of legislative history in legal interpretation:

> Both legislative history and constitutional history are strategic: players make statements with an eye on how other people will respond to them. In this century, legislative history has become strategic in another way: players make statements with an eye on how judges will construe their statutes. Legislative history, therefore, has become less revealing of original deals. Moreover, the Court has an obligation to create rules of interpretation that discourage this second-order strategic behavior in future Congresses. A rule of total exclusion is the only kind of rule that might do the trick.[591]

There already is evidence that online data sources may not be free of bias. A study by researchers at the Northwestern School of Communication, for example, analyzed a large sample of the sources represented in the Google Top Stories box—those little pictures that show up at the top of a Google search and that, when clicked, take users to an online news source, web page, or the like.[592] They found that "[t]he top 20.0% of news sources (136 of 678) account for 86.0% of all impressions [that is, views]; and 52.1% of impressions go to the top 20 news sources . . . . The top three, [*CNN*, *The New York Times*, and *The Washington Post*], account for 23.0% of impressions observed."[593] *CNN* was first on the list, accounting for 10.9% of all impressions.[594] *Fox News* was fourth on the list, accounting for only 3.0% of the impressions served up by Google to those who use its search engine.[595] This is despite the fact that when cable viewers consciously select their own

591. William N. Eskridge, Jr., *Should the Supreme Court Read* The Federalist *but Not Statutory Legislative History?*, 66 GEO. WASH. L. REV. 1301, 1302–03 (1998).

592. DANIEL TRIELLI & NICHOLAS DIAKOPOULOS, SEARCH AS NEWS CURATOR: THE ROLE OF GOOGLE IN SHAPING ATTENTION TO NEWS INFORMATION (CHI Conference, 2019), https://dl.acm.org/doi/fullHtml/10.1145/3290605.3300683 [https://perma.cc/NEC9-LXWU].

593. *Id.*

594. *Id.*

595. *Id.*

news sources, *Fox News* has consistently had much greater viewership than *CNN*.[596]

The danger is not so much in using corpus linguistics to determine what "previously" or "employment" means;[597] the problem is that using corpus linguistics in controversial cases—where politics, culture, or fundamental rights are involved—may easily produce biased results due to biased corpora.

To illustrate, if the media, including traditional newspapers, online media, and social media, heavily emphasizes stories about mass shootings or police shootings, while ignoring millions of instances in which individuals use firearms in self-defense,[598] corpora based on those sources will be biased.[599]

And firearms do seem to be a particular target of those who would edit the corpus of American films. Consider the *Star Wars* movies, which have been revised several times over the years:

> In 1978, *Star Wars* won seven Academy Awards. But if you want to watch that original version, the first of George Lucas's soon to be seven-

596. Lindsey Ellefson, *Fox News Tops CBS to Become Highest Rated Network in Primetime This Summer*, WRAP (Aug. 5, 2020), https://www.thewrap.com/fox-news-primetime-ratings/ [https://perma.cc/GXY9-YE36].

597. *See*, *e.g.*, Caesars Ent. Corp. v. Int'l Union of Operating Eng'rs Loc. 68 Pension Fund, 932 F.3d 91 (3d Cir. 2019); Richards v. Cox, 450 P.3d 1074 (Utah 2019).

598. There is sizable literature on defensive gun use in the United States. Estimates range from 256,500 annual defensive gun uses to 2.5 million. Most studies estimate that the number is over 1 million per year. *See, e.g.*, Gary Kleck & Marc Gertz, *Armed Resistance to Crime: The Prevalence and Nature of Self-Defense with a Gun,* 86 J. CRIM. L. & CRIMINOLOGY 150 (1995); PHILIP COOK & JENS LUDWIG, GUNS IN AMERICA: RESULTS OF A COMPREHENSIVE NATIONAL SURVEY OF FIREARMS OWNERSHIP AND USE 73 (1996), https://www.policefoundation.org/wp-content/uploads/2015/06/Cook-et-al.-1996-Guns-in-America.pdf [https://perma.cc/2CS4-672E]; Brian Doherty, *A Second Look at a Controversial Study About Defensive Gun Use*, REASON (Sept. 4, 2018), https://reason.com/2018/09/04/what-the-cdcs-mid-90s-surveys-on-defensi/ [https://perma.cc/9Q4Q-ZRHW]; Tom W. Smith, *A Call for a Truce in the DGU War*, 87 J. CRIM. L. & CRIMINOLOGY 1462 (1997). A very large and well-designed study using recent data found that there are approximately 1.67 million defensive gun uses annually. William English, *2021 National Firearms Survey* 9 (Georgetown McDonough Sch. Bus. Rsch. Paper No. 3887145 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3887145. Yet very few of these defensive uses are reported in the national news. When coverage occurs at all, it is generally limited to local outlets.

599. *See generally* MARK W. SMITH, FIRST THEY CAME FOR THE GUN OWNERS chs. 2–4 (2019) (describing approaches and techniques).

> part saga, you'll find it difficult. In fact, it's actually impossible to buy an official copy of *Star Wars* as it was first released. Lucas doesn't want you to see that version.[600]

Note these multiple changes: "In the original versions of the films . . . it's clear that Han Solo pulled out his gun and shot the bounty hunter Greedo. In the 1997 version, Greedo shoots first. In the 2004 version, they shoot at the same time."[601]

Looney Tunes has announced that in a reboot of the cartoon series that will be streamed on television, guns will be eliminated, including Elmer Fudd's shotgun.[602] While the series will still feature "the cartoon's characteristic violence—using sticks of dynamite, booby traps and the iconic anvils and bank safes dropped onto characters," the executive producer stated that "[w]e're not doing guns."[603] Steven Spielberg, after a screening in Los Angeles, "expressed regret over alterations made to *E.T.* a few years ago, where guns were digitally replaced with walkie-talkies," and promised to release the original version.[604]

Corpora cannot represent a true and accurate snapshot of language used in a particular time and place when the documents comprising the corpora are subsequently revised or rewritten to fit a political or social agenda. While there is less risk, perhaps, for ideological manipulation of the original sources contained in corpora from centuries ago, there is a very large risk of such manipulation of contemporary corpora. Such risks should be kept in mind, and guarded against, before courts give any great credence to corpus linguistics analyses relying on such corpora.

600. Rose Eveleth, *The Star Wars George Lucas Doesn't Want You to See,* ATLANTIC (Aug. 27, 2014), https://www.theatlantic.com/technology/archive/2014/08/the-star-wars-george-lucas-doesnt-want-you-to-see/379184/ [https://perma.cc/N23C-SUHA].

601. *Id.*

602. Marina Pitofsky, *Elmer Fudd Will Not Have a Gun in 'Looney Tunes' Reboot*, HILL (June 6, 2020, 9:45 PM), https://thehill.com/blogs/in-the-know/in-the-know/501503-elmer-fudd-banned-from-having-a-gun-in-looney-tunes-reboot [https://perma.cc/6G96-4BB2].

603. *Id*.

604. Russ Fischer, *Steven Spielberg Regrets Altering 'E.T.;' Will Release 'E.T.' and 'Raiders' on Blu-ray in Original Forms*, SLASHFILM (Sept. 14, 2011, 3:35 PM), https://www.slashfilm.com/steven-spielberg-regrets-altering-et-raiders-hit-bluray-original-forms/ [https://perma.cc/MZ3U-QKGJ].

VI. CONCLUSION

Does the Second Amendment confirm a pre-existing, individual right to bear arms for any lawful purpose, or does it, as some linguists claim, include only an alleged right to serve in the militia and exclude an individual, private right to arms? After reviewing corpus linguistics search results for "bear arms," and after considering the contemporary evidence of text, history, and tradition regarding the right to bear arms, which is more conclusive: the militia-only thesis, or the confirmation of a robust right to arms for both militia purposes and private purposes?

The answer is not difficult. As *Heller* noted, "bear arms" could mean, and did mean then, a right to bear arms individually and privately, as well as for military purposes. That suffices to answer the question. It could mean both and did mean both, and thus the right includes a private, individual right for lawful purposes such as self-defense.

Simply because a word search returns a greater number of hits for a military meaning does not exclude the individual right meaning—here the shortcomings of the frequency hypothesis are on full display. As described previously, originalism is neither advanced nor improved when searching corpora that primarily reflect political and legal usage by elites. Corpora are likely to be biased in favor of newsworthy events and may, in a given time period, simply reflect meanings pertaining to matters that were under public discussion at the time rather than ordinary usages relating to matters that were not often discussed.

The choice of a particular corpus may materially affect results, as shown by the different results produced by searches of Google as opposed to COFEA and COEME. The subjective nature of first eliminating irrelevant results, and then categorizing any remaining results felt to be relevant belies any claim that corpus linguistics is scientific—because those decisions are unlikely to be reproduced from researcher to researcher. Biases—even unconscious—of the researcher will likely affect results. And, indeed, as selective censorship in this country mounts, contemporary corpora—and perhaps, in time, historical corpora—are also becoming biased.

There are major procedural and practical problems with determining meaning—especially in constitutional cases—by using corpus linguistics. Introducing corpus linguistics by amicus briefs on appeal will often leave one side with no opportunity to respond, and if introduced by a court sua sponte on appeal, its use undermines the adversarial system. Lawyers and judges are not trained in the subject and should not become amateur

lexicographers. If corpus linguistics is to be used, such evidence should be subject to the rules of evidence regarding expert testimony and *Daubert* gate-keeping functions in order to test its scientific validity.

Even the state of California—not exactly a Second Amendment-friendly state—has recognized that corpus linguistics has serious limitations, especially at the appellate level. The California attorney general has argued that corpus linguistics is not "always 'the most helpful tool in the toolkit'" when it comes to divining the meaning of words.[605] In a submission to the Ninth Circuit Court of Appeals, the California attorney general cautioned that (a) corpus linguistics should be performed, if at all, by trained experts during discovery and not introduced on appeal; (b) the meaning of a word in a corpora may not equate to how the public would understand the term when used in the Constitution; (c) the corpora for a specific time period could be skewed by major news events of the period; (d) the selection of relevant databases and appropriate search parameters within a designated corpora are critical in the search for a term's meanings; (e) search results may not take into account variations in speech by geography, "speech communities, or time periods[;]" (f) findings will be influenced by the decisions of researchers to exclude search results which they believe to be irrelevant to the question presented; (g) an expert would likely be needed to determine what constitutes statistically significant sample sizes; and (h) with respect to research on the Second Amendment, it is important to "review the entire Amendment in context" as opposed to searching for isolated words or phrases.[606]

But more importantly, in the right to bear arms context, the approach applied in the linguists' briefs is massively contradicted by the text and history pertinent to the Second Amendment. Then, as now, the word "bear" most frequently meant to "carry." With only one colonial exception that we have found, there were no general prohibitions on the carrying of arms privately and peaceably by white people during the colonial period, the time of the Founding, and the early republic. And firearms were owned, carried, and used routinely, in large numbers, by nearly everyone, including children. The first seven Presidents (among many others) carried firearms for private purposes.[607] The Founding generation assumed a right to bear arms freely. Had there been a movement to restrict that right, the outcry would have been massive. But there was no outcry, because the right the Second

605. *Jones* Appellees' Supplemental Brief, *supra* note 260.

606. *Id.* at 16, 18–20, 23, 27.

607. *See supra* Part V.C.

Amendment protects was not construed then to be exclusively a right to serve in the militia, as the linguists contend.

Such a construction goes entirely against the grain of how the Founders thought. They were thoroughly schooled in Enlightenment thinking, from Locke to Blackstone to Beccaria. The Founders believed that the right to self-defense was the *primary natural right* of all human beings, and that right, by its very nature, could never be taken away by any law of civil society.[608] That right was viewed as a gift from God and deducible from nature by the application of reason. It included a right to use arms for self-defense and the defense of others. It was anathema to the Founders that they ever could or should be stripped of that right by any government, and so they confirmed that pre-existing right in the Second Amendment. The distinction between a militia right and a private right is a latter-day invention by persons intent on doing that which the Founders opposed.

The Supreme Court has just had a golden opportunity in *Bruen* to embrace corpus linguistics as an appropriate method for determining the meaning of the Second Amendment. As noted, several briefs were filed in that case urging the Court to adopt a corpus linguistics approach. But the Court did not deign even to mention the supposed "objective" and "scientific" benefits of corpus linguistics, and (except for a brief passage in the dissent) instead relied on the well-accepted interpretive principles of text, history, and tradition.[609]

Lord Kelvin, the British mathematical physicist and engineer who helped shape modern physics, famously remarked: "[W]hen you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind[.]"[610] That is no doubt true when applied to the field of physics and other hard sciences. Yet Jacob Viner, the eminent mid-century economist and teacher of Milton Friedman, countered: "Yes, and when you *can* express it in numbers, your knowledge is of a meagre and unsatisfactory kind."[611] Both men were right. In the hard sciences, numbers are crucial. But when one attempts to reduce constitutional interpretation, rooted in ideas,

608. *See supra* Part V.D.

609. *See generally* N.Y. State Rifle & Pistol Ass'n, Inc. v. Bruen, 142 S. Ct. 2111 (2022).

610. *See* WILLIAM THOMSON, *Electrical Units of Measurement*, *in* 1 POPULAR LECTURES AND ADDRESSES 73 (1889).

611. ROBERT HIGGS, CRISIS AND LEVIATHAN: CRITICAL EPISODES IN THE GROWTH OF AMERICAN GOVERNMENT 20 (1987).

traditions, and history, to a mathematical exercise, the results will be unsatisfactory.

We close with a quotation from Associate Chief Justice Lee of the Utah Supreme Court, perhaps the leading judicial advocate of corpus linguistics. Justice Lee himself has claimed only a modest role for corpus linguistics:

> Corpus analysis is something of a last resort. It comes into play only if we find that the legislature is not using words in some specialized sense, and only if we cannot reject one of the parties' definitions based on the structure or context of the statute. Corpus analysis comes in, in other words, as something of a tie-breaker where we find no better way of resolving the matter.[612]

We do not need a tie-breaker for Second Amendment interpretation. The Founders were clear that the people had a right to be armed for lawful purposes. They had just fought a war that was sparked principally by the attempted confiscation of their arms in Boston by the British General Thomas Gage.[613] There has been an unbroken tradition in this country of carrying arms for private purposes from the time settlers first stepped ashore to the present day. And, until recently, no one questioned that the Second Amendment confirmed that right. It would be foolish for a court to hold otherwise based on word counts.

612. State v. Rasabout, 356 P.3d 1258, 1286–87 (Lee, A.C.J., concurring in part and concurring in the judgment) (citation omitted).

613. *See* Matthew A. Byron, *Thomas Gage*, GEORGE WASHINGTON'S MOUNT VERNON, https://www.mountvernon.org/library/digitalhistory/digital-encyclopedia/article/thomas-gage/ [https://perma.cc/RWT8-PG57].