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CORPUS LINGUISTICS AND THE ORIGINAL PUBLIC MEANING OF THE SIXTEENTH AMENDMENT

THOMAS R. LEE,† LAWRENCE B. SOLUM,††

JAMES C. PHILLIPS††† AND JESSE A. EGBERT††††

ABSTRACT

Moore v. United States *raises the question whether unrealized gains, such as an increase in property value or a stock portfolio, constitute "incomes, from whatever source derived" under the original meaning of the Sixteenth Amendment.* Moore *is widely viewed as the most important tax case to reach the United States Supreme Court in decades. It is also an opportunity for the Court to refine its theory and method of finding original meaning.*

We focus here on the original public meaning of the Sixteenth Amendment—the ordinary, common meaning attributed to its text by the general public in 1913. So far, the parties and amici have relied on contemporaneous dictionaries to argue over such meaning. But the cited dictionaries do not establish the ordinary meaning of "incomes, from whatever source derived"; instead, they highlight a key ambiguity in the very terms of the definitions presented.

This article fills important gaps in the original public meaning analysis in Moore. *More broadly, it also charts a path for refining the*

† Rex J. and Maureen E. Rawlinson Professor of Law, Brigham Young University, J. Reuben Clark Law School.

†† William L. Matheson and Robert M. Morgenthau Distinguished Professor of Law and Douglas D. Drysdale Research Professor of Law, University of Virginia School of Law.

††† Director & Associate Professor, Constitutional Government Initiative, Wheatley Institute, Brigham Young University.

†††† Associate Professor of Applied Linguistics, Northern Arizona University.

theory and methodology of the originalist inquiry more generally. At the theoretical level, it introduces principles of the philosophy of language and theoretical linguistics that align with—and help refine—strands of the Court's originalist inquiry. And as to method, it introduces evidence from corpus linguistic analysis to provide a transparent, replicable basis for assessing the ordinary public meaning of the Sixteenth Amendment's relevant terms.

We use the Corpus of Historical American English ("COHA") to analyze the ordinary public meaning of the constitutional language at the time of ratification of the Sixteenth Amendment. At the "words-to-meaning" level, we show that "income(s)" was always used in 1900-1912 to refer to realized gains. We also perform a "meaning-to-words" analysis, showing that unrealized gains were always referred to using terms other than "income(s)."

Our corpus linguistic analysis reveals that the original public meaning of "incomes, from whatever source derived" almost certainly only covers realized gains. And it charts a path for greater transparency, objectivity, and replicability than more traditional tools of originalism.

INTRODUCTION

Moore v. United States[1] is a tax case of generational significance. It is also a helpful test case for the theory and methodology of the inquiry into the original public meaning of the Constitution.

As framed in the grant of certiorari, the Justices in *Moore* will decide whether Congress exceeded its Sixteenth Amendment power to tax "incomes" when it sought (in the Mandatory Repatriation Tax provision of the Tax Cuts and Jobs Act) to tax certain unrealized gains in holdings in foreign corporations.[2] This is a narrow law with limited application. But the *Moore* case has "far-reaching implications for tax jurisprudence."[3] Depending on the breadth of the Court's holding,[4]

1. Moore v. United States, No. 22-800 (argued Dec. 5, 2023).

2. Question Presented, Moore v. United States, 143 S. Ct. 2656 (2023) (No. 22-800) (granting certiorari to decide "[w]hether the Sixteenth Amendment authorizes Congress to tax unrealized sums without apportionment among the states"). No. 22-800 (argued Dec. 5, 2023).

3. KOSTELANETZ LLP, *Kostelanetz News Brief: In Landmark Case, Justices To Decide Constitutionality Of Mandatory Repatriation Tax*, KOSTELANETZ (July 8, 2023), https://kflaw.com/scotus-justices-to-consider-mandatory-repatriation-tax-to-reshape-federal-and-state-tax landscape [https://perma.cc/DWU4-JHPJ].

4. For a discussion of the various ways in which the holding of *Moore* might be limited, see Mindy Herzfeld, *Limiting the Fallout From* Moore, 111 TAX NOTES INT'L 113, 116–17 (2023).

Moore has the potential to "affect broad swaths of the U.S. tax code, corporate revenue and federal wealth tax proposals"[5] and to question "Congress's authority to enact structural tax reform that substantiates the fiscal system's commitment to distributive justice."[6]

Many of the Justices on the current Court have expressed their commitment to an originalist approach to constitutional interpretation.[7] They have often framed the inquiry in terms of a search for the "ordinary," "natural," or "common" understanding of the constitutional text at the time of ratification.[8] Yet the Justices have not always clarified the nature of or basis for this determination. And *Moore* will test the Court's commitment to originalism even as it presents an opportunity for the Court to refine its theory and sharpen its methodology of assessing ordinary public meaning.

The originalist question in *Moore* is whether unrealized gains fall within the contemporaneous understanding of "incomes, from whatever source derived." The standard starting point for such an inquiry is in definitions of "income" from dictionaries from the time of the Sixteenth Amendment's ratification in 1913. But dictionaries often fall short—as the briefing in *Moore* demonstrates. The parties cite historical dictionaries defining *income* as either "[t]hat which *comes in* to a person as payment for labor" or other services[9] or as any "commercial revenue or receipts of any kind, including . . . the return on investments."[10] The former definition is presented as a narrow

5. Kate Dore, *Here's What a New Supreme Court Case Could Mean for Federal Wealth Tax Proposals*, CNBC (June 28, 2023, 3:37 PM), https://www.cnbc.com/2023/06/28/how-a-supreme-court-case-could-affect-federal-wealth-tax-proposals.html [https://perma.cc/XD2R-WQXR].

6. Alex Zhang, *Rethinking* Eisner v. Macomber*, and the Future of Structural Tax Reform*, 92 GEO. WASH. L. REV. (forthcoming February 2024) (manuscript at 5), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4551857 [https://perma.cc/S8G7-T2DR]; *see also* Daniel Bunn, Alan Cole, William McBride & Garrett Watson, *How the Moore Supreme Court Case Could Reshape Taxation of Unrealized Income*, TAX FOUND. (August 30, 2023), https://taxfoundation.org/research/all/federal/moore-v-united-states-tax-unrealized-income [https://perma.cc/4FJP-YMV7] (suggesting that the effect on federal revenues could be as large as "$5.7 trillion over 10 years").

7. *See* John O. McGinnis, *Which Justices Are Originalist?*, LAW & LIBERTY (Nov. 9, 2018), https://lawliberty.org/which-justices-are-originalists [https://perma.cc/7QU8-UYEL].

8. *See infra* Part I.B.

9. Petition for Writ of Certiorari at 18–19, Moore v. United States, 143 S. Ct. 2656 (2023) (No. 22-800) (citing *Income*, CENTURY DICTIONARY AND CYCLOPEDIA (1901); *Income*, WEBSTER'S REVISED UNABRIDGED DICTIONARY (1913)).

10. Brief for the United States in Opposition at 18–19, *Moore*, 143 S. Ct. 2656 (2023) (No. 22-800) (quoting *Income*, WEBSTER'S NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE 1089 (1911)) (citing *Income*, THE CENTURY DICTIONARY AND CYCLOPEDIA 3040 (1911)).

definition supporting petitioners' view that an unrealized gain in a stock holding does not "come in" to the shareholder. The latter definition is advanced as a broad sense of income—an "investment[]" that is a "commercial revenue"—supporting the government.

But these dictionary definitions do not paint a clear picture of the original public meaning question in *Moore*. They tend to highlight ambiguity in the meaning of *income* rather than resolving it. They provide no basis for deciding which sense of *income* was ordinary or common at the time of ratification. And they fail to account for the phrasal meaning of "incomes, from whatever source derived."

On their face, the terms of the cited definitions beg some of the key questions at hand. Would ordinary users of early 20th-century English speak of an increase in asset value as "com[ing] in" to its owner when it is reflected in a balance sheet or portfolio statement but not a bank account? And would they speak of such an increase as the kind of "investment[]" that is a "revenue or receipt[]"? The answers to these questions depend on the ordinary meaning of embedded terms like "come in" and "revenue or receipt[]."

We can assume that petitioners' definition suggests a view of *income* excluding unrealized gains and that the government's definition would include them. We still wouldn't have an answer to the ordinary meaning question. We would just have evidence that both parties' definitions of *income* exist historically. And the cited dictionaries do not claim to tell us which of the cited senses is more natural, common, or ordinary.

Sometimes we can answer that sort of question by looking at the broader linguistic context. We could know whether someone is speaking of a *bank* as a financial institution, for example, and not the side of a waterway if they use *bank* in connection with financial deposits or withdrawals. But dictionaries typically define words, not broader phrases. And we can't tell from the cited dictionaries whether "income" "derived" from a "source" supports petitioners' or the government's understanding of ordinary meaning.

Historical dictionaries thus cannot tell us whether unrealized gains fall within the ordinary, common meaning of the terms of the Sixteenth Amendment. This is an empirical question. And empirical questions call for evidence derived from transparent, reliable sources.

A key example of such a source is a historical corpus—a database of naturally occurring language from the time period in question. By examining a corpus, one can gauge which of two possible senses of a

constitutional term is more common or natural in a given linguistic setting. And one can focus more specifically on the precise component of the linguistic inquiry—whether the public that ratified the Sixteenth Amendment used "incomes" commonly or naturally to refer to unrealized gains.

We investigate these questions through data derived from the Corpus of Historical American English ("COHA"). COHA is a corpus—a database of naturally occurring language—of more than 475 million words drawn from over 115,000 individual texts.[11] These texts are a sample of American English published between 1820 and 2000, balanced between fiction and non-fiction, including newspapers and magazines.[12]

The COHA interface is well-suited to assessing the common, ordinary usage of the terms of the Sixteenth Amendment. It allows for a systematic search of the use of the relevant language at the precise time in question—in a focused search for every instance of the term *income(s)* during the years leading up to ratification. Such a search provides reliable insights into the language that ordinary people would have read during this time period.[13] Specifically, it can answer questions that dictionaries cannot—what sense of *income* was more ordinary or common, and *was income* ordinarily used to refer to unrealized gains?

We perform this analysis in two steps. Step one is a "words-to-meaning" inquiry—an examination of the ordinary meaning of a particular word or phrase in a given speech community at a given time. We examined every instance of *income* or *incomes* in COHA from 1900-1912—978 in all. And in every single instance in which the context was clear, we found that *income(s)* referred to realized gains—never unrealized ones.

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11. *See* CORPUS OF HISTORICAL AMERICAN ENGLISH, https://www.english-corpora.org/coha [https://perma.cc/8CZX-654F] (last visited Sept. 1, 2023).

12. *Id*.

13. COHA also contains popular fiction and periodicals that were widely circulated during the relevant time period. Thus, COHA provides us with a large and varied sample from the domain of published American English that allows us to confidently generalize our findings to the language that ordinary people would have read, and thus been familiar with, during the time period. However, we cannot make generalizations about the language that ordinary people would have spoken or written during the time period because COHA does not contain language from every text type produced (such as everyday conversation or personal letters). For an extensive discussion of corpus representativeness and generalizability, see JESSE EGBERT, DOUGLAS BIBER & BETHANY GRAY, DESIGNING AND EVALUATING LANGUAGE CORPORA: A PRACTICAL FRAMEWORK FOR CORPUS REPRESENTATIVENESS 68–71 (Cambridge Univ. 2022).

We acknowledged the possibility that this was merely a reflection of the fact that the phenomenon of unrealized gains was simply rare in the corpus. This led to the second step of our analysis—our "meaning-to-words" inquiry. At this step, we looked for the concept of unrealized gains to see what term is used to describe it. We searched in the same timeframe for instances of unrealized gains, with terms like *increase in value*. We found dozens of instances of references to unrealized gains, but not once were such referred to as *income(s)*.

In sum, our corpus linguistics analysis of usage from the relevant period strongly supports the conclusion that the original public meaning of the Sixteenth Amendment does not authorize Congress to tax unrealized gains without the apportionment that is otherwise required by Article I. And our methodology provides greater transparency, objectivity, and replicability than more traditional tools.

Our inquiry is limited in scope. We do not investigate a range of other questions that may be relevant to the Supreme Court's decision in *Moore*—as to a technical or legal meaning of "incomes," the possible implications of the Necessary and Proper Clause for the Court's interpretation of the Sixteenth Amendment, or the original meaning of "direct tax"[14] in Article I.[15] We focus purely on the inquiry into the general public's understanding of "incomes, from whatever source derived." And we show that corpus linguistics provides overwhelming, transparent evidence that unrealized gains fell outside the scope of the ordinary understanding of this language at the time of the ratification of the Sixteenth Amendment.

Our argument proceeds in four parts. In Part I, we frame the inquiry with some background on *Moore*, a brief summary of Public Meaning Originalism, and a presentation of the role that corpus linguistics can play in an originalist inquiry. In Part II, we highlight the deficiencies of dictionary definitions and show how corpus linguistic analysis can address these shortcomings. In Part III, we present the results of our corpus linguistics study of the original meaning of "incomes, from whatever source derived"—results that provide strong evidence that the word *income*, as understood by the public in 1913, was not used to refer to unrealized gains. In Part IV, we reply to recent scholarship that argues that the original meaning of *income* did refer to such gains. We conclude with some observations about the implications

14. *See infra* note 63 and accompanying text.

15. *See infra* note 64 and accompanying text.

of this study for the future use of the two-stage (words-to-meaning and meaning-to-words) approach to corpus linguistic analysis.

I. FRAMING THE INQUIRY INTO THE ORIGINAL PUBLIC MEANING OF THE SIXTEENTH AMENDMENT

Our inquiry into the original public meaning[16] of the Sixteenth Amendment begins with a brief discussion of *Moore v. United States* and the role that the original public meaning of "incomes, from whatever source derived" may play in determining its outcome. We then step back and examine the idea of original public meaning from the perspective of constitutional theory, followed by a discussion of the role of corpus linguistics as a method for determining that meaning. This Part concludes with a brief discussion of the limits and scope of our investigation.

A. *The Outcome of* Moore v. United States *May Turn on the Original Public Meaning of "Incomes" in the Sixteenth Amendment*

Moore v. United States involves three provisions of the constitutional text. First, Congress is granted the power to "lay and collect taxes" by Article I of the United States Constitution.[17] Second, Article I also requires that "direct taxes shall be apportioned among the several states which may be included within this union, according to their respective numbers."[18] In 1895 in *Pollock v. Farmers' Loan & Trust Co.*,[19] the United States Supreme Court held that taxes "on the income of real estate, and of personal property"—including dividends—constituted a direct tax and hence were invalid unless apportioned as required by Article I.[20] The third constitutional provision at issue in *Moore* is the Sixteenth Amendment, which gave to Congress the "power to lay and collect taxes on *incomes*, from

[16] We recognize the ambiguity of the term "original public meaning." One sense refers to ordinary meaning as opposed to technical meaning with the sense of "public" meaning "the general public." Another sense refers to public as opposed to private meaning and would encompass original and technical meaning as long as it is not the private meaning of the framers. We use the former sense in this article.

17. U.S. CONST. Art. I, § 8.

18. U.S. CONST. Art. I, § 2.

19. Pollock v. Farmers' Loan & Trust Co., 158 U.S. 601 (1895), *superseded by constitutional amendment*, U.S. CONST. amend. XVI, *as recognized in* Nat'l Fed'n of Indep. Bus. v. Sebelius, 567 U.S. 519, 571 (2012).

20. *Id.* at 637.

whatever source derived, without apportionment among the several States."[21] The scope of Congress's power under the Sixteenth Amendment to enact direct taxes that are not apportioned depends on the meaning of "incomes, from whatever sources derived."

The Court will decide *Moore v. United States*[22] in its October 2023 Term.[23] In *Moore*, a three-judge panel of the United States Court of Appeals for the Ninth Circuit held that "[w]hether the taxpayer has realized income does not determine whether a tax is constitutional."[24] Judge Patrick Bumatay dissented from the denial of a petition for rehearing by the Ninth Circuit en banc:

> Neither the text and history of the Sixteenth Amendment nor precedent support levying a direct tax on unrealized gains. Ratification-era sources confirm that the prevailing understanding of "income" entailed some form of realization. And a hundred years of precedent establishes that only realized gains are taxable as "income" under the Sixteenth Amendment. While the Supreme Court has allowed flexibility in identifying "incomes," it has never abandoned the core requirement that income must be realized to be taxable without apportionment under the Sixteenth Amendment. Simply put, as a matter of ordinary meaning, history, and precedent, an income tax must be a tax on realized income. And our court is wrong to violate such a common-sense tautology.[25]

Judge Bumatay's dissent provided an originalist challenge to the reasoning of the three-judge panel in *Moore*, raising the question whether unrealized gains are "incomes, from whatever source derived" within the original public meaning of the Sixteenth Amendment.

Following the denial of rehearing en banc, the United States Supreme Court granted certiorari on the following question: "Whether the Sixteenth Amendment authorizes Congress to tax unrealized sums without apportionment among the states."[26] From an originalist perspective, the scope of Congress's power to tax such gains turns on

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21. US CONST. amend. XVI (emphasis added).

22. The outcome in *Moore* may depend on other questions, some of which are identified below.

23. Moore v. United States, 143 S. Ct. 2656 (2023) (mem.) ("Petition for writ of certiorari to the United States Court of Appeals for the Ninth Circuit granted.").

24. Moore v. United States, 36 F.4th 930, 935 (9th Cir. 2022), *rehearing denied*, 53 F.4th 507, and *cert. granted*, 143 S. Ct. 2656 (2023) (mem.).

25. Moore v. United States, 53 F.4th 507, 508 (9th Cir. 2022) (Bumatay, J., joined by Ikuta, Callahan, and VanDyke, JJ.), *cert. granted*, 143 S. Ct. 2656 (2023) (mem.).

26. Petition for Writ of Certiorari at i, *Moore*, 143 S. Ct. 2656 (No. 22-800).

the original public meaning "incomes, from whatever source derived" during the period when the Sixteenth Amendment was ratified, starting in 1909 and ending in 1913.[27]

B. Public Meaning Originalism as a Method of Constitutional Interpretation and Construction

Our investigation focuses on the original public meaning of "incomes, from whatever source derived"? In other words, we operate within the framework of Public Meaning Originalism.[28] This version of originalism includes three central ideas:

- *The Fixation Thesis*: The original meaning of the constitutional text is fixed at the time each provision is framed and ratified[29];
- *The Public Meaning Thesis*: The best understanding of original meaning is the communicative content of the constitutional text that was accessible to the public at the time each provision was framed and ratified[30]; and
- *The Constraint Principle*: Constitutional practice ought to be consistent with, fully expressive of, and fairly traceable to the original public meaning of the constitutional text.[31]

For present purposes, we can define "original public meaning" as the set of ideas conveyed by the text to the public (especially ordinary citizens) at the time the text was drafted, framed, and ratified.

Each of the three components of Public Meaning Originalism has implications for the interpretation of the Sixteenth Amendment. First, the Fixation Thesis expresses the idea that constitutional interpretation should recover the *original* meaning of the constitutional text. That idea is sometimes called "the Fixed-Meaning Canon"—the notion that "[w]ords must be given the meaning they had when the text was

27. STEVEN R. WEISMAN, THE GREAT TAX WARS: LINCOLN TO WILSON 250–65 (2002).

28. For a general introduction to originalism, see generally Lawrence B. Solum, *Originalism Versus Living Constitutionalism: The Conceptual Structure of the Great Debate*, 113 NW. U. L. REV. 1243, 1262–71 (2019).

29. *See* Lawrence B. Solum, *The Fixation Thesis: The Role of Historical Fact in Original Meaning*, 91 NOTRE DAME L. REV. 1, 1 (2015).

30. *See* Lawrence B. Solum, *The Public Meaning Thesis: An Originalist Theory of Constitutional Meaning*, 101 B.U. L. REV. 1953, 1957 (2021).

31. *See* Lawrence B. Solum, The Constraint Principle: Original Meaning and Constitutional Practice (Apr. 3, 2019) (unpublished manuscript) (manuscript at 20–21), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2940215 [https://perma.cc/CE7V-C4LF].

adopted."[32] The Supreme Court expressed this idea in *New York State Rifle & Pistol Ass'n v. Bruen*,[33] by stating that the Constitution's "meaning is fixed according to the understandings of those who ratified it."[34] The original meaning of the Sixteenth Amendment was fixed as of 1913 when the amendment was ratified.

Second, the Public Meaning Thesis reflects a basic principle of U.S. constitutional democracy: our understanding of the Constitution should be viewed through the lens of popular sovereignty.[35] The Constitution was ordained and established by "We the People."[36] The relevant meaning of each constitutional provision was the meaning that text communicated to U.S. citizens at the time that provision was framed and ratified. As Justice Story put it:

> [E]very word employed in the Constitution is to be expounded in its plain, obvious, and common sense, unless the context furnishes some ground to control, qualify, or enlarge it. Constitutions are not designed for metaphysical or logical subtleties, for niceties of expression, for critical propriety, for elaborate shades of meaning, or for the exercise of philosophical acuteness or judicial research. They are instruments of a practical nature, founded on the common business of human life, adapted to common wants, designed for common use, and fitted for common understandings. The people make them, the people adopt them, the people must be supposed to read them, with the help of common sense, and cannot be presumed to admit in them any recondite meaning or any extraordinary gloss.[37]

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32. ANTONIN SCALIA & BRYAN A. GARNER, READING LAW: THE INTERPRETATION OF LEGAL TEXTS 78 (2012).

33. N.Y. State Rifle & Pistol Ass'n v. Bruen, 142 S. Ct. 2111 (2022).

34. *Id.* at 2111, 2118, 2132.

35. The Public Meaning Thesis is a core commitment of public meaning originalism, but other forms of originalism may not share this commitment. For example, original intentions originalism privileges the intentions of the framers over the understanding of the public. Original methods originalism argues that the constitution should be understood using the original methods of constitutional interpretation. In the case of the Sixteenth Amendment, the original methods included a commitment to public meaning. *See infra* notes 40–50 and accompanying text.

36. *See* U.S. CONST. pmbl. *See also* James C. Phillips, *Which Ordinary Public?*, 25 CHAPMAN L. REV. 333, 346–48 (2022) (arguing that the most appropriate "public" for original public meaning originalism is that public defined by "We the People of the United States").

37. JOSEPH L. STORY, COMMENTARIES ON THE CONSTITUTION OF THE UNITED STATES § 451, at 345 (Melville M. Bigelow ed., 5th ed. 1994); *see also* Rhode Island v. Palmer, 253 U.S. 350, 398 (1920) (McKenna, J., dissenting) (stating, "in the exposition of statutes and constitutions, every word 'is to be expounded in its plain, obvious, and common sense, unless the context furnishes some ground to control, qualify, or enlarge it,' and there cannot be imposed upon the words 'any recondite meaning or any extraordinary gloss.'") (citing *id.*).

As the Supreme Court put it in *District of Columbia v. Heller*,[38] the relevant meaning of the constitutional text "excludes secret or technical meanings that would not have been known to ordinary citizens."[39] And as the Supreme Court further explained in *Rhode Island v. Palmer*,[40] the constitutional text should be "expounded in its plain, obvious, and common sense, unless the context furnishes some ground to control, qualify, or enlarge it."[41] This idea is sometimes expressed as the Ordinary Meaning Canon: the principle that "[w]ords are to be understood in their ordinary, everyday meanings—unless the context indicates that they bear a technical sense."[42] In the context of the Sixteenth Amendment, the relevant meaning of "incomes, from whatever source derived" is the ordinary, common, or natural meaning for the public—regular folks who spoke, read, and wrote American English in 1913.

The third component of Public Meaning Originalism is the Constraint Principle: the original public meaning of the constitutional text is binding. Neither Congress nor the federal courts have authority to override or modify the constitutional text outside of the Article V amendment process. In the context of the Sixteenth Amendment, this means that the Supreme Court ought to consider itself bound by the original public meaning of "incomes, derived from any source."

The general framework provided by Public Meaning Originalism has been employed by the Supreme Court in the context of the Sixteenth Amendment. For example, in *Lynch v. Hornby*,[43] the Court held that "Congress was at liberty under the Amendment to tax as income, without apportionment, everything that became income, in the *ordinary sense of the word*."[44] And in *Doyle v. Mitchell Bros. Co.*,[45] the Court sought to credit the meaning of the term *income* in its "natural and obvious sense."[46]

The role of Public Meaning Originalism in judicial interpretation of the Sixteenth Amendment was especially clear in *Eisner v.*

38. District of Columbia v. Heller, 554 U.S. 570 (2008).
39. *Id.* at 577.
40. Rhode Island v. Palmer, 253 U.S. 350 (1920).
41. *Id.* at 398 (McKenna, J., dissenting) (quotation omitted).
42. SCALIA & GARNER, *supra* note 32, at 69.
43. Lynch v. Hornby, 247 U.S. 339 (1918).
44. *Id.* at 343–44 (emphasis added).
45. Doyle v. Mitchell Bros. Co., 247 U.S. 179 (1918).
46. *Id.* at 185.

Macomber[47]—the leading decision on the meaning of "income(s)" in the amendment.[48] The Court was divided on whether the stock dividend at issue fell within the scope of "incomes" covered by the Sixteenth Amendment. But both the majority and dissent agreed on the focus of the interpretive inquiry—the "definition of the term 'income,' as used in *common speech*,"[49] in other words, the "sense most obvious to the common understanding at the time" the Sixteenth Amendment was ratified.[50]

The briefing in *Moore* by the United States has relied on a specialized meaning of *income(s)* in the early 1900s—as a legal term of art defined by tax statutes[51] and legal dictionaries.[52] The following passage illustrates the government's argument:

> One prominent scholar, Professor Robert Murray Haig, defined income as "the money value of the net accretion to one's economic power between two points in time." That definition was "the one generally adopted as the definition of income in modern income tax acts" (*i.e.*, immediately after the Sixteenth Amendment). Other scholars similarly defined income as "the flow of commodities and services accruing to an individual through a period of time and available for disposition after deducting the necessary cost of acquisition."[53]

The technical meaning of *income* devised by economist Robert Murray Haig might be desirable as a matter of tax policy.[54] But the Sixteenth Amendment was proposed for "public adoption"[55] and not for ratification by economists or tax lawyers. The original public meaning of "incomes" is the "ordinary sense of the word."[56] The merits brief for

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47. Eisner v. Macomber, 252 U.S. 189 (1920).

48. *See* Henry Ordower, *Abandoning Realization and the Transition Tax: Toward A Comprehensive Tax Base*, 67 BUFF. L. REV. 1371, 1372 (2019) (characterizing *Macomber* as the "leading U.S. Supreme Court decision").

49. *Eisner*, 252 U.S. at 206–07 (emphasis added).

50. *Id.* at 220 (Holmes, J., dissenting) (emphasizing that the text of the amendment "was proposed" "for public adoption").

51. *See* Brief for the United States at 1214, Moore v. United States, 143 S. Ct. 2656 (Oct. 16, 2023) (No. 22-800) (looking at the meaning of income in the Internal Revenue Code).

52. *See id.* at 14–15 (relying on two dictionaries).

53. *Id.* at 15 (citations omitted).

54. *See generally* Robert Murray Haig, *The Concept of Income—Economic and Legal Aspects*, *reprinted in* THE FEDERAL INCOME TAX 1 (Robert Murray Haig ed., 1921) (taking on "the broader [approach] of fundamental economics and equity").

55. *Eisner*, 252 U.S. at 220 (Holmes, J., dissenting).

56. Lynch v. Hornby, 247 U.S. 339, 343–44 (1918).

the United States contends that the ordinary meaning of *income(s)* for the public included unrealized gains. But it does not contain a single reference to the idea of original public meaning.[57]

Likewise, the original public meaning of the Sixteenth Amendment is not controlled by definitions of *income* in state income tax schemes predating the Sixteenth Amendment and judicial opinions that interpret them.[58] The legislatures that enacted these statutes were not bound by the Sixteenth Amendment and hence were not required to use the word "income" in its ordinary, common, or natural sense. Likewise, state court decisions that interpreted the word *income* as used in state statutes would have had no reason to restrict state legislatures to the ordinary meaning of *income*. To the extent that a state legislature used *income* in a special, technical, or stipulated sense and the intent to do so was evident from the statute and its legislative history, the decisions of state courts interpreting a state income tax statute would be of very limited probative value as evidence of the original public meaning of the Sixteenth Amendment.

From an originalist perspective, the Court should interpret the Sixteenth Amendment in accordance with the public's understanding of "incomes, from whatever source derived." Neither Congress nor the IRS has the power to alter that meaning—through adoption of an Internal Revenue Code or regulations defining "income" as a matter of tax policy.

C. Corpus Linguistics as a Method for Determining Original Public Meaning

How can the Supreme Court determine the original public meaning of the words and phrases that make up the text of the Sixteenth Amendment? Corpus linguistic tools are a mainstay of linguistic analysis, and they are increasingly brought to bear on questions of the ordinary meaning of the language of law.[59] Rightly so,

57. *See* Brief for the United States at 16, *Moore*, 143 S. Ct. 2656 (No. 22-800) (noting Treasury Department considers unrealized gains as income). The phrase "original public meaning" does not appear at any point in the government's merits brief. The phrase "ordinary meaning" does appear once in connection with the government's discussion of the technical legal meaning of "income" as defined by Black's Law Dictionary. *Id.* at 17.

58. *See* Brief for the United States at 20, *Moore*, 143 S. Ct. 2656 (No. 22-800) (discussing a Massachusetts tax statute and its interpretation by the Massachusetts Supreme Court).

59. *See* Lucia v. SEC, 138 S. Ct. 2044, 2056–57 (2018) (Thomas, J., concurring) (citing corpus linguistic analysis in support of originalist interpretation of "Officers of the United States" in the Appointments Clause); Bostock v. Clayton County, 140 S. Ct. 1731, 1769 (2020) (Alito, J.,

as they are particularly suited to questions that turn on an empirical inquiry into the ordinary or common usage of words among members of a speech community that is over a century removed from our own. Words change meanings over time; linguists call this phenomenon "linguistic drift."[60]

The Court should interpret the Sixteenth Amendment in accordance with its original public meaning—the ordinary, "common" meaning,[61] understood by "ordinary citizens."[62] That meaning cannot be reliably established by the tools most commonly utilized in the originalist inquiry. Historical dictionaries provide period definitions of *income*. But those definitions cannot tell us whether the ordinary, common use of that term encompasses a realization event. And they do not account for the broader linguistic context of the Sixteenth Amendment—not just "income" in isolation, but the phrase "incomes, from whatever source derived." Corpus linguistic tools can provide such evidence.

D. The Limits and Scope of the Inquiry

This Article addresses the original public meaning of "incomes, from whatever source derived" in the text of the Sixteenth Amendment. That inquiry is limited in scope. We do not address several questions that may be important to the ultimate resolution of *Moore v. United States* by the Supreme Court. Among these questions are the following:

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dissenting) (citing corpus linguistic analysis of the meaning of "sex"); Facebook, Inc. v. Duguid, 141 S. Ct. 1163, 1174–75 (2021) (Alito, J., concurring) (citing *Judging Ordinary Meaning* and suggesting that corpus tools may help mediate the tension between the rule of the last antecedent and the series qualifier canon); N.Y. State Rifle & Pistol Ass'n, Inc. v. Bruen, 142 S. Ct. 2111, 2178 (2022) (Breyer, J., dissenting) (citing corpus linguistic evidence in support of the conclusion that "bear arms" in the Second Amendment "was overwhelmingly used to refer to 'war, soldiering, or other forms of armed action by a group rather than an individual'"); *see generally* Thomas R. Lee & James C. Phillips, *Data-Driven Originalism*, 167 PENN L. REV. 261 (2019) (identifying ways that corpus tools can refine an originalist inquiry).

60. Lawrence B. Solum, *The Fixation Thesis: The Role of Historical Fact in Original Meaning*, 91 NOTRE DAME L. REV. 1, 17 (2015); *see* SOL STEINMETZ, SEMANTIC ANTICS: HOW AND WHY WORDS CHANGE MEANING 49–50 (2008) (describing evolving meaning of "deer" over time).

61. Rhode Island v. Palmer, 253 U.S. 350, 398 (1920) (McKenna, J., dissenting).

62. District of Columbia v. Heller, 554 U.S. 570, 576–77 (2008); *accord Bruen*, 142 S. Ct. at 2132 ("[H]istory guide[s] our consideration of modern regulations that were unimaginable at the founding.").

- What is the original public meaning of "direct tax" in the Article I of the United States Constitution?[63]
- Does the Necessary and Proper Clause authorize Congress to tax unrealized gains that are not "income" when such taxation would be conducive to the efficacy or fairness of the personal income tax as a whole?[64]
- Do the decisions of the Supreme Court support the tax at issue in *Moore v. United States* even if that tax is not on "incomes" as that term was understood by the public in 1913?[65]

Answers to these questions and many others may (or may not) be required for the Supreme Court to decide *Moore v. United States*, but they are beyond the scope and limits of our inquiry in this Article.

63. There is one investigation of "direct tax" using corpus linguistics. *See generally* John K. Bush & A.J. Jeffries, *The Horseless Carriage of Constitutional Interpretation: Corpus Linguistics and the Meaning of "Direct Taxes" in* Hylton v. United States, 45 HARV. J.L. & PUB. POL'Y 523 (2022) (considering corpus linguistics "in the context of 'direct taxes' – a hotly debated topic throughout our nation's history"). The general question as to the meaning of "direct tax" has received substantial scholarly attention. *See, e.g.*, Erik M. Jensen, *The Apportionment of "Direct Taxes": Are Consumption Taxes Constitutional?*, 97 COLUM. L. REV. 2334, 2336 (1997); Mark E. Berg, *Bar the Exit (Tax)! Section 877A, the Constitutional Prohibition Against Unapportioned Direct Taxes and the Realization Requirement*, 65 TAX LAW. 181, 182 (2012); Joseph M. Dodge, *What Federal Taxes Are Subject to the Rule of Apportionment Under the Constitution?*, 11 U. PA. J. CONST. L. 839, 841 (2009).

64. U.S. CONST. art. I, § 8. The relationship of the Necessary and Proper Clause to the Sixteenth Amendment has not been explored in depth. There has been some discussion, but not in the context of the Congress's power to tax unrealized gains. *See* Chad Squitieri, *Towards Nondelegation Doctrines*, 86 MO. L. REV. 1239, 1275 (2021) (discussing "[w]hether an objective reader in 1788 would have understood a particular delegation to be a 'necessary and proper' means of 'carrying into execution' the taxing power vested in Congress by the Sixteenth Amendment, as that power was understood by an objective reader in 1913"). At least one court has endorsed the proposition that the Necessary and Proper Clause applies to the Sixteenth Amendment. *See* United States v. Shimek, 445 F. Supp. 884, 889 (M.D. Pa. 1978) ("Federal income tax withholding does not result in a taking of property without due process and is a legitimate exercise of Congress' power to make all laws necessary and proper for the taxing of income pursuant to the Sixteenth Amendment to the United States Constitution.").

65. This question involves the relationship between the original meaning of the constitutional text and precedents that may be inconsistent with that meaning. There is a substantial body of scholarly literature. *See* Amy Coney Barrett, *Originalism and Stare Decisis*, 92 NOTRE DAME L. REV. 1921, 1921 (2017).

II. AS MOORE SHOWS, CORPUS LINGUISTIC ANALYSIS PROVIDES TRANSPARENT ANSWERS TO QUESTIONS THAT ARE NOT OFTEN AVAILABLE USING STANDARD ORIGINALIST METHODS

The opinions and briefs in *Moore* claim to identify objective grounds for establishing the ordinary, common, natural meaning of "income, from whatever source derived." But the cited evidence is insufficient.

Both sides marshal dictionary definitions in support of their views. On the petitioners' side are narrow definitions focused on a purportedly realized "gain which *proceeds from* labor, business, property, or capital," or "[t]hat which *comes in to a person* as payment for labor" or other services.[66] And on the government's side are broader definitions encompassing any "commercial revenue or receipts of any kind, including . . . the return on investments," or "receipts or emoluments regularly accruing."[67]

Yet neither set of definitions clearly resolves the question presented: whether "incomes, from whatever source derived" require realization. The implication of petitioners' argument is that a gain does not "proceed from" labor or property or "come in" to a person without realization. But that depends on what we mean by "proceed from" or "come in."[68] A gain in the value of an asset not subject to a realization event *could* be metaphysically viewed to "proceed from" property or even to "come in" to the person. Yet that might not be the ordinary

66. Petition for Writ of Certiorari at 18, *Moore v. United States*, 143 S. Ct. 2656 (Feb. 21, 2023) (No. 22-800) (citing *Income*, WEBSTER'S REVISED UNABRIDGED DICTIONARY (1913); *Income*, CENTURY DICTIONARY AND CYCLOPEDIA (1901)).

67. Brief for the United States in Opposition at 18–19, *Moore*, 143 S. Ct. 2656 (No. 22-800) (citing *Income*, WEBSTER'S NEW INT'L DICTIONARY OF THE ENGLISH LANGUAGE 1089 (1911); *Income*, CENTURY DICTIONARY AND CYCLOPEDIA 3040 (1911)).

68. The recent article by Professors Brooks and Gamage focuses mostly on the legal meaning of "income." *See generally* John R. Brooks & David Gamage, Moore v. United States and the Original Meaning of Income (July 2, 2023) (unpublished manuscript), https://ssrn.com/abstract=4491855 [https://perma.cc/54M8-J9C5] ("In this essay, we highlight some of the major errors and omissions of the taxpayers, amici, and Ninth Circuit dissenters related to the question of original meaning."). But these scholars also make some reference to general public meaning—in citing contemporaneous dictionaries defining "income" in terms of "gain" and "gain" in terms of "increase," "profit," or "accumulation," and then in concluding that these "broad definitions . . . show" that the text of the Sixteenth Amendment would have been understood not "as words of limitation, but rather as pointing to *sources* of gain that can be considered 'income.'" *Id.* at 8. This is a plausible way to read these dictionaries. But the dictionaries themselves do not "show" what kind of "income" or "gain" would have been understood to fall within the ordinary meaning of these terms. We can't get that kind of empirical information from dictionaries. For that we need a corpus.

understanding of "proceed from" and "come in." And dictionary definitions themselves do not tell us what is ordinary.

The government's definitions are similarly insufficient. Maybe the ordinary understanding of "revenue," "return[s]," and "receipts of any kind"[69]—as used in the definition of *income(s)*—would encompass unrealized gains. But that depends on the scope of the common, natural understanding of *those* terms. And again, dictionaries themselves do not tell us what is ordinary.

In some cases, a dictionary may do nothing more than tell us that "a particular meaning is linguistically permissible" in a given context.[70] In hard cases, both parties' preferred sense will be attested in the dictionary as "permissible." Where that is so, the dictionary tells us nothing about which sense is more ordinary, common, or natural.[71]

The narrow definitions of income may indicate a realization-based understanding.[72] But the broader definitions could undermine that view. And neither set of definitions determines or establishes original public meaning. Without more, they simply justify the parties' or judge's preferred view.[73]

Conceivably, a court could resolve a standoff between competing dictionary definitions by adding further linguistic context. The dictionary itself may not tell us which of two senses of income is more ordinary or common in the abstract. But one of those senses may predominate in a given semantic setting. Petitioners and their *amici* advance this view. They note that the Sixteenth Amendment speaks of

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69. WEBSTER'S NEW INT'L DICTIONARY, *supra* note 67, at 1089.

70. HENRY M. HART, JR. & ALBERT M. SACKS, THE LEGAL PROCESS: BASIC PROBLEMS IN THE MAKING AND APPLICATION OF LAW 1375–76 (William N. Eskridge, Jr. & Philip P. Frickey eds., 1994).

71. *See* James C. Phillips & Jesse Egbert, *A Corpus Linguistic Analysis of "Foreign Tribunal,"* 108 VA. L. REV. ONLINE 207, 215 (May 2022) ("[D]ictionaries do not indicate which sense of a word is the ordinary sense—that would depend on context.").

72. *See Moore v. United States*, 53 F.4th 507, 511 (9th Cir. 2022) (Bumatay, J., dissenting from denial of petition for rehearing en banc) (concluding that definitions framed in terms of "*gain* which *proceeds from*" certain sources or "[t]hat which *comes in*" to the recipient "*suggest* that the ordinary meaning of 'income' was confined to realized gains" (third and fourth emphases added)).

73. *See* Thomas R. Lee & James C. Phillips, *Data-Driven Originalism*, 167 PENN L. REV. 261, 286 (2019) (noting that "[t]he point" of a dictionary "is to list all known definitions or senses" and thus that a dictionary's listing of "alternative senses of a given term . . . wouldn't tell you which one is the one likely to be understood in a given linguistic context"); *id.* at 289 (citing concerns about "the risk of confirmation bias or motivated reasoning" in the face of cherry-picking).

"income, from whatever source derived," and assert that "income" is "derived" from a source only where the gain is realized.[74]

One could summon examples of phrases and sentences illustrating the point—as with "income derived from hourly labor," or "income derived from the sale of real estate." But without evidence showing that such examples reflect the ordinary, common usage of those words and phrases, invoking those examples in legal analysis is akin to cherry-picking.

III. CORPUS TOOLS SHOW THAT THE ORIGINAL PUBLIC MEANING OF "INCOMES, FROM WHATEVER SOURCE DERIVED" INCLUDES AN ELEMENT OF REALIZATION

To determine the ordinary, common, natural understanding of the constitutional text, we need a tool that can reliably uncover patterns of language usage in the years preceding the ratification of the Sixteenth Amendment. The Corpus of Historical American English (COHA) is appropriate for this task. It provides a transparent, systematic way of identifying historical patterns of language usage relevant to the original public meaning inquiry. And it opens the door to a replicable search of the historical use of *income(s)* across a large number of naturally occurring texts. It thus allows us to go beyond identifying the range of possible meanings of the constitutional language by establishing the ordinary, common, or natural sense of the words.

A. The Methodology of Legal Corpus Linguistics

The discussion that follows outlines the methodology of legal corpus linguistics employed in our study.

The Court's originalist inquiry has been framed in terms of two distinct steps. Those steps align with—and can be helpfully informed by—principles drawn from the philosophy of language.

74. *See* Brief for Petitioners at 28–29, Moore v. United States, *cert. granted*, 143 S. Ct. 2656 (Aug. 30, 2023) (No. 22-800), 2023 WL 5726586 (arguing that "[r]atification-era dictionary definitions also recognized that realization is inherent to income"); *see, e.g.*, Brief of Amicus Curiae Southeastern Legal Foundation in Support of Petitioners at 10–11, Moore v. United States, *cert. granted*, 143 S. Ct. 2656 (Mar. 27, 2023) (No. 22-800), 2023 WL 2730795 (discussing "[r]atification-era dictionaries").

1. *Step One: Words-to-Meaning*. The first step involves what we call a "words-to-meaning" analysis.[75] In the philosophy of language, this would be called "semasiology."[76] "[S]emasiology takes its starting-point in the word as a form and charts the meanings that the word can occur with."[77]

This is the standard, first-level move in originalism that starts with the constitutional *words* in question and searches for evidence of the ordinary *meaning* of those words historically. If available evidence shows that the words in the Constitution were used to denote a common, ordinary meaning, one can postulate that those words do not typically extend to other, alternative senses.

So, for example, in *District of Columbia v. Heller*, the Court concluded that "to keep and bear arms" ordinarily meant an individual right to bear arms for defensive purposes unconnected with military service.[78] Thus, the Court could "exclude[] secret or technical meanings that would not have been known to ordinary citizens in the founding generation."[79] Similarly, Justice Stevens, in dissent, asserted that "bear arms . . . refers most naturally to a military purpose" and should take that reading when "unadorned by" other terms.[80] Both the majority and the dissent made the same interpretive move: starting with words from the Constitution and looking at historical evidence to determine what those words ordinarily meant.[81]

As explained below, we followed that approach in our attempt to assess the original public meaning of *income(s)*. In the first step we relied on a COHA search for each time the word *income(s)* appeared from 1900 to 1912—978 instances in all—and a systematic analysis of

75. Two of us, in a previous article, used a different term for this: "text to meaning." *See* Kevin Tobia, Jesse Egbert & Thomas R. Lee, *Triangulating Ordinary Meaning*, 112 GEO. L.J. ONLINE 23, 27 (2023).

76. *See* Dirk Geeraerts, *The Scope of Diachronic Onomasiology*, *in* DAS WORT. SEINE STRUKTURELLE UND KULTURELLE DIMENSION 29, 29–30 (Vilmos Ágel, Andreas Gardt, Ulrike Hass-Zumkehr & Thorsten Roelcke eds., 2002).

77. *Id.* at 30.

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

79. *Id.*

80. *Id*. at 647 (Stevens, J., dissenting).

81. The majority relied on other parts of the Constitution, dictionaries, state constitutional provisions, a legal treatise, pre-Civil War state court interpretations, and other legal sources. *See* James C. Phillips & Josh Blackman, *Corpus Linguistics and* Heller, 56 WAKE FOREST L. REV. 609, 615–28 (2021). Justice Stevens relied on other parts of the Constitution, a dictionary, etymology, state declarations of rights, state militia laws, and "dozens of contemporary texts," including two newspapers, a letter, Journals of the Continental Congress, and Sessions of Congress. *See id.* at 613, 628–31.

the meaning *income(s)* in those contexts.[82] The analysis found that ordinary speakers used *incomes* to refer to a gain attached to a realization event—a connection further reinforced when *income(s)* appeared in close proximity to *derived*.[83]

2. *Step Two: Meaning-to-Words*. This first interpretive step is not without its limitations. If a sense or referent rarely appears in response to a search for a given term in a corpus, that might suggest that it falls outside the ordinary meaning of the term. But it could also indicate that the sense or referent falls within the ordinary meaning but is a rare example of it in the corpus. A search for *vehicle*, for example, might not produce results that include many cement mixers.[84] But does that mean that a cement mixer does not fall within the ordinary meaning of vehicle, or just that cement mixers are rarely attested examples of vehicles in a given corpus?

This is where the second step comes into play. This step involves a "meaning-to-words" inquiry. It starts with a hypothesized *meaning* and searches for the ordinary *words* used to express it. In the philosophy of language, this is referred to as "onomasiology."[85] "[O]nomasiology takes its starting-point in a concept, and investigates by which different expressions the concept can be designated, or named."[86]

If the ordinary words used to express a given meaning are not the words the Constitution uses, that can reinforce the conclusion that the Constitution's text does not embrace that meaning. This step likewise finds support in case law. For example, *Harmelin v. Michigan*[87] rejected a proportionality guarantee under the Eighth Amendment.[88] In an opinion joined by Justice Rehnquist, Justice Scalia asserted that "cruel and unusual" would be "an exceedingly vague and oblique way" of capturing this concept, noting that various founding-era state

82. Thomas R. Lee, Lawrence B. Solum, James C. Phillips & Jesse A. Egbert, Appendices to Corpus Linguistics and the Original Public Meaning of the Sixteenth Amendment 2–97 (Sept. 2, 2023) [hereinafter Lee et al., Appendices], https://ssrn.com/abstract=4560186 [https://perma.cc/SW4A-R992].

83. *Id*. at Apps. A & B.

84. *See* Thomas R. Lee & Stephen C. Mouritsen, *The Corpus and the Critics*, 88 U. CHI. L. REV. 275, 340 (2021).

85. Geeraerts, *supra* note 76, at 29–30.

86. *Id*.

87. Harmelin v. Michigan, 501 U.S. 957 (1991).

88. *Id.* at 977 (opinion of Scalia, J.).

constitutions included express requirements that penalties be "proportionate" or "proportioned" to the offense, and stating that the failure to use that ordinary terminology is a basis for concluding that the concept of proportionality falls outside the ordinary meaning.[89]

Similarly, in a concurrence in *NLRB v. Noel Canning*,[90] Justice Scalia contended that the words of the Recess Appointments Clause "would have been a surpassingly odd *way* of giving the President" the power "to fill all vacancies that might *exist* during a recess, regardless of when they arose."[91] He claimed that a more common way of stating that would be to "refer[] to 'all Vacancies that may exist during the Recess,'" or to "authorize[] the President to 'fill up all Vacancies during the Recess.'"[92]

As explained below, we also followed this approach by using COHA. Searching for instances where people were describing something increasing in value, which can be described in various ways, we found that people used terms other than *income(s)* to describe unrealized gains each time they did so. This evidence increases the probability that our first finding—that *income(s)* is not used to refer to unrealized gains—is not merely a function of unrealized gains not being discussed in the corpus.

3. *The Power of Combining the Steps*. The two steps we identify were employed by Justice Scalia in his famous dissent in *Morrison v. Olson*.[93] Faced with a question about what the word "inferiour" means in the Article I reference to officers, Justice Scalia employed step one by first turning to a dictionary definition.[94] That left him with the classic conundrum of dueling definitions: "(1) '[l]ower in place, . . . station, . . . rank of life, . . . value or excellency,' and (2) '[s]ubordinate.'"[95] To determine which was the appropriate sense of "inferiour," he then turned to the use of the word elsewhere in the Constitution. He concluded that the word adopted the latter sense because of its use in

89. *Id*. (emphasis added).

90. NLRB v. Noel Canning, 573 U.S. 513 (2014).

91. *Id.* at 595 (Scalia, J., concurring in the judgment) (first emphasis added).

92. *Id.*

93. Morrison v. Olson, 487 U.S. 654 (1988).

94. *Id*. at 719 (Scalia, J., dissenting).

95. *Id*. (quoting SAMUEL JOHNSON, DICTIONARY OF THE ENGLISH LANGUAGE (6th ed. 1785)).

Article III, which, as explained in Federalist 81, described "inferior" courts as "subordinate."[96]

But not content with just this word-to-meaning analysis, Justice Scalia raised a meaning-to-word analysis, without actually performing it—perhaps because it is not the type of analysis that lends itself to dictionaries. He noted that "[i]f what was meant was merely 'lower in station or rank,' one would use instead a term such as 'lesser officers.'"[97]

Neither a words-to-meaning nor a meaning-to-words approach may be sufficient on its own. But together they can provide a potent one-two punch as to the evidence of original public meaning. We perform both steps below. And we present transparent, replicable grounds for concluding that, in the years leading up to the adoption of the Sixteenth Amendment, *income(s)* was used in ordinary parlance to refer only to realized gains.

B. From 1900 to 1912, the Word "Income(s)" Was Used Universally to Refer to a Realized Gain

Our study shows that the original public meaning of "incomes, from whatever source derived" did not refer to unrealized gains. This finding was produced by studying instances of usage in COHA.

1. *Our Study Utilized the Corpus of Historical American English*. We searched COHA for every instance of *income* or *incomes* from 1900 to 1912. We selected an end date of 1912 because it was the last full year before Sixteenth Amendment was ratified in 1913. Knowing that linguistic drift often leads to changes in word meanings over time, our goal in selecting a start date was to stay as close as possible to the date of ratification, while still including an adequate number of data to instill confidence in our conclusions. Going back to 1900 allowed us to stay within just over a decade of ratification and also include a total of 978 results, called "concordance lines"—881 instances of *income* and 97 instances of *income(s)*.[98] Appendices to our online article contain the results of this search, with the date, source, and genre of each result specified.[99] Each search result initially presents a sample of 20 to 30

96. *Id*. at 719–20.

97. *Id.* at 719.

98. Lee et al., Appendices, *supra* note 82, at App. A.

99. *See id*.

words surrounding *income(s)*.[100] An expanded context is also available, showing 250 to 300 surrounding words, in Appendix E.[101]

2. *Multiple Coders Applied a Framework to the Corpus To Produce Determinant and Replicable Results*. We developed a replicable coding framework for assessing whether or not the historical uses of *income(s)* referred to a realized or unrealized economic gain.[102] We recruited three law students to help with coding. Each coder was introduced to the linguistic question in this case without being given any specific hypotheses to confirm or disconfirm. The coders were trained to apply the coding framework before then analyzing and coding one-third of the 978 results of the search for *income(s)* from 1900-1912 in COHA.[103] Each coded for determinacy ("[c]oder is able to determine if the gain is realized or unrealized") and realization ("If yes, was there a realization?").[104] We defined realization as "[a] gain that has become the separate and usable property of the one to whom the 'income' is ascribed."[105] So coders marked "Y" for "yes" if "[i]t can be tied to specific types of income, such as wages, sales of goods and services, cash dividends, a trust, or an unspecified source with a specific payment or transaction involved."[106] And coders marked "N" for "no" if the result was "[a]n increase in theoretical value but the one receiving the income does not have use or control of the added value without a realization event (sale, etc.)."[107]

The coders also noted the nature of the income if apparent and the contextual basis for their findings on determinacy and realization.[108] And they then coded 10 percent of the results initially coded by the other two students to blindly cross check their work.[109]

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100. *See, e.g.*, *id*. at result 936 ("[W]orse thing is a society so scantily provided with productive agents that there are no incomes for either idlers or workers to pocket . . . .").

101. *Id.* at App. E.

102. *Id*. at App. D.

103. *See* App. A. We did not begin coding the material for this article until the coders were trained and had practiced on similar material from 1914 in COHA. That required two rounds of coding and calibration until the agreement rate between the coders was at least 90 percent.

104. *Id*. at App. D.

105. *Id*.

106. *Id*.

107. *Id*.

108. *Id*.

109. The agreement rate between the coders was adequately high on determinacy, and 100 percent on the more important coding of realization, as shown in the table below.

To be both determinate and realized, a result had to include *explicit* contextual evidence of "[a] gain which becomes . . . separate property" of the one to whom the "income" is ascribed.[110] So a reference to *income(s)* could be coded as determinate and realized only if the context clearly showed that it yielded separate and usable property for the recipient. A bare reference to *income(s)* without such context would have been coded as indeterminate.

C. The Finding of the Corpus Investigation

1. *All Codable Instances of "Income" and "Incomes," Including Those Proximate to "Derived" Involve Realization*. Under this conservative coding framework, the coders identified 280 results of the search for *income(s)* that included enough context to code as determinate.[111] And in every single one of those 280 results, the context expressly indicated that the *income(s)* in question were separate, usable property of the recipient; there were no examples of *income(s)* clearly referring to an unrealized gain.[112]

References to *income(s)* were coded as realized where, for example, the context referred to:

- A source of income understood as separate and usable such as wages, salary, or a pension[113]; or

Coder Pairing	Determinacy Agreement Rate	Realization Agreement Rate
1 & 2	63.6%	100%
1 & 3	87.9%	100%
2 & 3	93.9%	100%

Table 1. Agreement Rate Between Coders.

110. *Eisner*, 252 U.S. at 209.

111. Lee et al., Appendices, *supra* note 82, at App. A.

112. *Id*.

113. *See, e.g.*, *id.* at App. E (App. A Expanded Context), result 821 ("Until lately Miss Conrad was an important contributor to the family income. While she was earning $18 a week by working . . . ."); *id*. at result 397 ("The pension means a doctor's care or care in a hospital, medicines, and an income of from fifty cents to a dollar and a half a week for the family of the incumbent, according as the class in which he is insured provides."). A lengthier example includes:

> In most cases the Italian farmer, in addition to managing his own place, plows and clears land for American farmers, and works at odd jobs during the winter to increase the family income. Frequently the whole family goes as berry pickers to the better strawberry region further south, as well as for later crops in Hammonton. Cranberry picking is considered so remunerative that well-to-do Italians leave their farms to earn $75 for a good season.

Id. at result 208.

- A use or expenditure of income that could only have been produced after realization.[114]

This shows that *income(s)* in its ordinary, common, natural sense referred to a realized gain.

The same conclusion holds when one considers the use of terminology even closer to the constitutional text—the use of *income* within six words of some variation of the word *derive*. This search yielded 36 results.[115] And the same picture emerges—if anything a bit more clearly.

Here, the level of determinacy was higher. Half, or 18 of the 36 results, were determinate, and thus codable for realization.[116] Adding *derive* seemed to correlate more consistently with a reference to the nature of source of *income(s)*. That correlation strongly indicates that realization is required to bring "incomes, from whatever source derived" within the original public meaning of the Sixteenth Amendment. And all eighteen of the codable results referred to a realized gain.

2. *Indeterminate Instances Do Not Undermine Our Conclusions*. The 698 results coded as indeterminate do not undermine our conclusion. We found no basis for suspecting that the indeterminate results might skew in favor of unrealized income. If anything, they might skew the other way.

In many of the results coded as indeterminate, the coder may have easily surmised that the reference to income was likely to involve a realized gain. One result, for example, referenced people who "maintain[ed] a condition of chronic poverty by the simple expedient of living beyond their incomes."[117] Another spoke of a "peasant" who

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114. *See, e.g.*, *id.* at result 595 ("[H]e spent on me and himself during our married life an income of between $20,000 and $25,000 annually."); *id.* at App. E (App. A Expanded Context), result 275 ("The average rent is nine dollars a month. The average monthly income of the husband (if husband there be) is only fifteen dollars. So it takes over two weeks' work to pay one month's rent."). A lengthier example includes:

> In the capitals of Europe the cost of maintaining a suitable establishment is so great that the majority of our Ambassadors and Ministers today disburse most, if not all, of the money they receive for their service in house rent alone. . . . These as well as the other officials in the foreign service must make up all additional expense out of their private incomes. Few, if any, secure revenue from fees or other perquisites in connection with their official duties.

Id. at result 930.

115. *See id.* at App. B.

116. *See id.*

117. *Id*. at App. A, result 951.

"lived in one parish and derived most of his income from land situated in another."[118] Perhaps the coders could have presumed that those living "beyond their incomes" in "chronic poverty" were cashing out and thus realizing any sources of "incomes" available. Or they could have presumed that a "peasant" deriving "income from land" was a laborer earning wages and not a real estate speculator. But we coded these results as indeterminate in the absence of any explicit contextual basis for treating the income as involving a realized gain.

Perhaps more important, the coders found no counter-examples—no results where they identified a subjective basis for believing that *income(s)* referred to an unrealized gain. Thus, if anything, the conservative coding criteria may have understated the results connecting "income(s)" to realized gains. And our coding is open for anyone to question and put to the test.[119]

3. *Unrealized Gains Are Attested in COHA but Referred to Using Words Other than Income(s).* A lack of evidence of the use of *income(s)* to describe unrealized gains might not be conclusive if unrealized gains were simply nonexistent in COHA. In that event, our words-to-meaning evidence might just reflect the absence of the *phenomenon* of unrealized gains, and not that such gains fall outside the ordinary meaning of *income(s)*.[120]

But this is where meaning-to-words analysis comes into play. At this step, one searches for the concept of unrealized gains in the corpus and asks what words speakers ordinarily use to express that concept. If the concept of unrealized gains appears but is ordinarily expressed using words other than *income(s)*, the above objection evaporates, and the meaning-to-text analysis stands: an unrealized gain falls outside the ordinary meaning of *income(s)*.

We found numerous references to unrealized increases in the value of property. To do so, we searched for all forms of the word *increase* within six words of *value* from 1900 to 1912.[121] That search

118. *Id.* at result 521.

119. *See generally* Lee et al., Appendices, *supra* note 82 (providing full COHA search results for all 978 instances of "income" appearing from 1900 to 1912).

120. *See* Thomas R. Lee & Stephen C. Mouritsen, *The Corpus and the Critics*, *supra* note 84, at 355 (acknowledging this concern with corpus analysis while explaining that it can be addressed by testing whether the phenomenon "is generally expressed using" words "other than" those at issue (quoting Lawrence M. Solan & Tammy Gales, *Corpus Linguistics as a Tool in Legal Interpretation*, 2017 BYU L. REV. 1311, 1315)).

121. *See* Lee et al., Appendices, *supra* note 82, at App. C.

yielded 94 results, which we winnowed to 34 that involved an increase in monetary value of an asset without a realization event.[122] Within those remaining 34 results, we examined whether speakers used *income(s)* or some other words to characterize the unrealized increase in value.

Again, the evidence supports that *income(s)* does not refer to unrealized gains. None of the 34 results that refer to unrealized gains spoke of such gains as *income(s)*. Instead, speakers used other words, such as *value*, *gain*, *profit*, *fortune*, or *prosperity*.[123] The word *income* did appear in the expanded context of 5 of these 34 results.[124] But in none of those results was *income* used to refer to or describe the unrealized gain. To the contrary, in at least some of those results, *income* was used in *contrast* to unrealized gains.

Consider Results 80 and 81 of the increase in value data subset (Appendix C). These results both appear in the same text and speak of increased "income" from cotton mills leading to increased "value" of property.[125] This is not increased value as income—the causal direction goes the other way, with income leading to increased value of property. Results 36 and 38 also cut against the idea of *income* as an ordinary word for the concept of increased value. Both of these results discuss "increased value" and "income" as distinct concepts, with "income" being the money that flows from an estate and the unrealized gains brought to the estate by land improvements being a separate issue.[126]

Result 62 is also telling. This result speaks of a person who "possesses a fortune of about $635,000, with an income of $30,000 a year. . . . Under his stewardship the property has increased in value from about $300,000 to $635,000."[127] Here, income is separated from the $335,000 in gains and is only used to describe the money that actually flows to the owner. The speaker later discusses the income to determine how much of it was being spent. This is a clear example of ordinary usage not only using a term other than *income* to refer to unrealized economic gains, but also using the term to refer to the distinct meaning of realized gains.

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122. *Id*.
123. *See, e.g.*, *id.* at results 10, 17 & 19.
124. *See id.* at results 36, 38, 62, 80 & 81.
125. *See id.* at results 80, 81.
126. *See id.* at results 36, 38.
127. *Id.* at App. E (App. C Expanded Context), result 62.

We found a similar example in the words-to-meaning dataset (Appendix A). Result 567 of that dataset speaks of a farmer "raising the value" of his "land" by "ridding the farm of weeds."[128] But the result clarifies that this unrealized increase in land value is not "income." The farmer is described as receiving "income," and avoiding a "dead loss," only upon a realization event—the sale of the weeds for their medicinal purposes.[129] The unrealized increase in the value of the farm is thus not "income"; the farmer would be left with a "dead loss"—and no "income"—without the sale of the weeds.

The concept of unrealized gain thus exists in COHA. But that concept is not spoken of as *income*; and it is often differentiated from it.

IV. ARGUMENTS THAT THE ORIGINAL MEANING OF "INCOMES, FROM WHATEVER SOURCE DERIVED" ENCOMPASS UNREALIZED GAINS ARE NOT BASED ON THE EVIDENCE OF PUBLIC MEANING

In two working papers, Professors John Brooks and David Gamage argue that the original meaning of *income* did not include a realization requirement.[130] Their careful and learned papers draw on a number of sources, including the following:

- Legal and dictionary definitions from the late nineteenth and early twentieth centuries.[131]

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128. *Id.* at App. E (App. A Expanded Context), result 567.

129. *Id.*

130. *See generally* John R. Brooks & David Gamage, Moore v. United States *and the Original Meaning of Income* (Fordham L. Legal Stud. Rsch. Paper No. 449185) [hereinafter Brooks & Gamage, *Original Meaning of Income*], https://papers.ssrn.com/abstract=4491855 [https://perma.cc/U3N6-JYV4] ("We show that contemporary definitions of *income* did not incorporate—and could not have incorporated—the contemporaneous definition of *realization* . . . ."); John R. Brooks & David Gamage, *"From Whatever Source Derived": The Sixteenth Amendment and Congress's Income Tax Power* (Fordham L. Legal Stud. Rsch. Paper No. 4595884) [hereinafter Brooks & Gamage, *Congress's Income Tax Power*], https://papers.ssrn.com/abstract=4595884 [https://perma.cc/87XU-6YRN]. More recently, Jonathan Grossberg, Professor Kerry Inger, and Carneil Wilson have published a short article that purports to establish the original public meaning of "incomes" in *Tax Times*. See Jonathan D. Grossberg, Kerry K. Inger & Carneil D. Wilson, Moore v. United States *and The Original Public Meaning of "Taxes on Incomes,"* 43 ABA TAX TIMES 1 (Jan. 2024), https://www.americanbar.org/groups/taxation/publications/abataxtimes_home/23fall/23fall-ac-grossberg-inger-wilson-moore [https://perma.cc/8MZA-TA5C]. Like the Brooks and Gamage articles, this piece focuses almost exclusively on the technical meaning of income. *Id.* The article provides no direct evidence of the ordinary or common meaning of income at the time the Sixteenth Amendment was adopted.

131. Brooks & Gamage, *Original Meaning of Income*, *supra* note 130, at 8–9.

- Legal treatises and similar sources.[132]
- The Haig-Simons definition of *income*,[133] articulated in its modern form by economist Henry Simons in 1938.[134]
- Legal authorities, including statutes and cases, from the period before and shortly after 1913.[135]

None of the sources cited by Professors Brooks and Gamage provide direct evidence of the original public meaning of "incomes, from whatever source derived" in 1913. Instead, their sources bear on the technical meaning of the word *income* in the late nineteenth and early twentieth centuries. This is also evident in their summary of their position:

> Because income taxes had existed since the Civil War, a body of statutory, regulatory, and case law had developed around them. Furthermore, there was an income tax (on corporations) in effect at the time of the Sixteenth Amendment's ratification, and some states—most notably Wisconsin—had already instituted income taxes on individuals. In other words, the original public meaning of "income tax" is not purely linguistic but is inextricably bound up with the public's understanding of what income taxes actually were in practice.[136]

Although Brooks and Gamage assert that the public understood "incomes, from whatever source derived" as a reference to the technicalities of tax laws prior to 1913, they provide no evidence or support for that assertion. Moreover, they acknowledge that their argument hinges on technical meaning in the next paragraph of their working paper. They argue that readers would "understand [taxes on incomes] as a 'term of art,' a technical legal concept that depends on the interpretations of lawyers, accountants, and economists, not just ordinary meaning."[137]

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132. *Id.* at 11–13.

133. *Id.* at 13–14.

134. HENRY C. SIMONS, PERSONAL INCOME TAXATION: THE DEFINITION OF INCOME AS A PROBLEM OF FISCAL POLICY 50 (1938). Professors Brooks and Gamage observe that the Haig-Simons definition of income has earlier precursors in work by Robert Murray Haig in 1921 and by George von Schanz in 1896. Brooks & Gamage, *Original Meaning of Income*, *supra* note 130, at 13–14.

135. Brooks & Gamage, *Original Meaning of Income*, *supra* note 130, at 14–20.

136. Brooks & Gamage, *Congress's Income Tax Power*, *supra* note 130, at 24–25 (footnote omitted).

137. *Id*. at 25 (footnote omitted).

But both originalist theory and the decisions of the Supreme Court point in the opposite direction. The original public meaning of the "term 'income,'" is that "used in common speech,"[138] that is, the "sense most obvious to the common understanding at the time" the Sixteenth Amendment was ratified by the people.[139] Our analysis of the evidence from corpus linguistics strongly suggests that the ordinary meaning of "income" included a realization requirement. We found no evidence that the public was aware of the technical meaning of income devised by Professor Haig or implicit in the technicalities of pre-1913 tax statutes.

For this reason, *Moore* is a case where the Supreme Court's commitment to original *public* meaning in cases interpreting the Sixteenth Amendment may be crucially important. As our investigation of the corpus linguistics evidence reveals, the "definition of the term 'income,' as used in *common speech*,"[140] and the "sense most obvious to the common understanding at the time"[141] the Sixteenth Amendment was ratified does not include unrealized gains. It is substantially different from the technical meanings for lawyers, accountants, and economists that may be found in the sources canvassed in by Professors Brooks and Gamage.

CONCLUSION

In *Moore*, the Court may determine whether unrealized gains count as "incomes" under the Sixteenth Amendment. The original public meaning of the constitutional text should inform that inquiry. Both the petitioners and the government urge the Court to use tools that are not up to the task of determining the original public meaning of Sixteenth Amendment. Rather than relying on dictionary definitions, or technical meaning crafted by accountants, economists, and lawyers, the Court can rely on corpus linguistic methodology to help resolve the Sixteenth Amendment's original public meaning in deciding this case. Our application of that methodology shows that the

138. Eisner v. Macomber, 252 U.S. 189, 206–07 (1920) (emphasis added).

139. *Id.* at 219–20 (Holmes, J., dissenting) (quoting Bishop v. State *ex rel.* Griner, 48 N.E. 1038, 1040 (Ind. 1898)); *id.* (emphasizing that the text of the amendment "was proposed" "for public adoption" (citing McCulloch v. Maryland, 17 U.S. (4 Wheat.) 316, 407 (1819))).

140. *Id.* at 206–07 (emphasis added).

141. *Id.* at 220 (Holmes, J., dissenting) (citing McCulloch v. Maryland, 17 U.S. (4 Wheat.) 316, 407 (1819))).

most likely public understanding of the amendment's language was that *income(s)* only covered realized gains.

What is more, this article illustrates the value of a two-step approach to investigation of meaning. The first step proceeded from the words-to-meaning inquiry by examining usage of the word *income* to determine whether its meaning encompassed unrealized gains.[142] The second step focused on a meaning-to-words analysis, by identifying references to unrealized increases in economic value to determine whether the word *income* was used to refer to them.[143] Both approaches are implicit in the Supreme Court's own approach to constitutional interpretation.[144] When one combines the two steps using the tools of corpus linguistics, the result can provide powerful evidence of original public meaning. Thus, our investigation of the Corpus of Historical American English has provided very strong evidence that the original public meaning of "incomes, from whatever source derived" did not encompass unrealized gains.

The original public meaning of *income* is an ascertainable fact that can be determined using a transparent, replicable, reliable set of tools developed by the discipline of linguistics, refined by legal scholars, and already used by lawyers and courts in a wide variety of contexts. Our investigation shows that the original public meaning of "incomes, from whatever source derived" does not extend to unrealized gains.

142. *See supra* Part III.C.1.

143. *See supra* Part III.C.3.

144. *See supra* notes 79, 88–97 and accompanying text.