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# How Big Data Can Increase Originalism’s Methodological Rigor: Using Corpus Linguistics to Reveal Original Language Conventions

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*Big Data is everywhere. The Big Data revolution is not only the collection of information; it is also the use of that data to disclose new, previously unknown information about us and our lives.*

*Originalism is on the cusp of its own Big Data revolution. For the first time, both a body of data of the Constitution’s original meaning and the technology to effectively utilize that data are available. In this Article, I argue that originalism should embrace its own Big Data transformation and that doing so will help originalism achieve greater methodological rigor. I argue that originalists who embrace a Big Data transformation will be able to reliably and accurately reveal original language conventions.*

*In this Article, I bring together a widely observed phenomenon — the theoretical move toward original meaning originalism — with an emergent phenomenon — the use of computer-assisted research technologies and techniques (“CART”) in originalism. I argue that originalists’ conceptual move toward original meaning originalism, when coupled with their adoption of CART, will reduce the force of the*

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*Inaccuracy Critique* — the claim that originalism’s reliance on history makes any resulting constitutional law inaccurate.

Originalism rests on the premise that it is able to ascertain the Constitution’s meaning with reasonable accuracy. A recurring criticism of originalism is that, on the contrary, originalism leads to inaccuracy in constitutional law. Originalism leads to inaccuracy because it depends on an activity — the recovery of the Constitution’s meaning via the methods of history — that cannot bear the weight. Unlike criticisms that originalism leads to normatively bad constitutional interpretations, the *Inaccuracy Critique* contends that originalism fails on its own terms — that its methodology is flawed.

In response to this criticism, many originalists made a major conceptual move: they rearticulated originalism as original meaning originalism in place of original intent originalism. In this Article, I build on that conceptual move, and I tie it to a modification to the method of historical research for originalism that will make the process more accurate. In particular, I argue that original meaning originalism’s focus on the text’s original conventional meaning, coupled with now-widely available CART, blunts the *Inaccuracy Critique*. By harnessing the power of Big Data, originalism moves toward a more rigorous methodology. Computer-assisted research techniques will increase originalism’s methodological rigor by introducing the techniques of the empirical sciences and producing testable and reproducible results.

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## INTRODUCTION

Big Data is everywhere.<sup>1</sup> Online, sites such as Google and Facebook collect our personal information.<sup>2</sup> When we drive, public and private entities record our travel statistics.<sup>3</sup> Phone companies track our

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<sup>1</sup> See Neil M. Richards & Jonathan H. King, *Big Data Ethics*, 49 WAKE FOREST L. REV. 393, 399 (2014); see also Marc Andreessen, *Why Software Is Eating the World*, WALL STREET J. (Aug. 20, 2011), <http://www.wsj.com/articles/SB10001424053111903480904576512250915629460>.

<sup>2</sup> See Richards & King, *supra* note 1, at 425; see also Catherine Clifford, *How Google, Apple, Facebook and Others Use Your Personal Data (Infographic)*, ENTREPRENEUR (June 28, 2013), <https://www.entrepreneur.com/article/227248>; Jeff VanderMeer, *The NSA’s Bulk Collection Is Over, but Google and Facebook Are Still in the Data Business*, ATLANTIC (June 3, 2015), <http://www.theatlantic.com/politics/archive/2015/06/the-nsas-bulk-collection-is-over-but-google-and-facebook-are-still-in-the-data-business/458496/>.

<sup>3</sup> See Meg Leta Jones, *The Ironies of Automation Law: Tying Policy Knots with Fair Automation Practices Principles*, 18 VAND. J. ENT. & TECH. L. 77, 121-22, 124, 129 (2015) (discussing the data collection abilities of cars as a prerequisite of self-driving cars).

conversations.<sup>4</sup> The list goes on.<sup>5</sup> The Big Data revolution, however, is not only the collection of this and other information — though that is a tremendous innovation.<sup>6</sup> Instead, the Big Data revolution is also the use of that data to disclose new, previously unknown information about us and our lives.<sup>7</sup>

Originalism is on the cusp of its own Big Data revolution. For the first time, both a body of data of the Constitution's original meaning and the technology to utilize that data are becoming available. In this Article, I argue that originalism should embrace its own Big Data transformation and that, doing so will help originalism achieve the methodological rigor critics have for so long claimed originalism lacks. I argue that originalists who embrace the Big Data revolution will be able to reliably and accurately recover original language conventions, which are the foundation for the Constitution's authoritative original meaning.

In this Article, I bring together a widely observed phenomenon — the theoretical move toward original meaning originalism<sup>8</sup> — with an unnoticed phenomenon — the emergent use of computer-assisted research technologies and techniques (“CART”)<sup>9</sup> in originalism.<sup>10</sup> I

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<sup>4</sup> See Richards & King, *supra* note 1, at 402 (discussing the growing ease, and therefore availability, of metadata storage by phone companies and others).

<sup>5</sup> See Omer Tene & Jules Polonetsky, *Big Data for All: Privacy and User Control in the Age of Analytics*, 11 NW. J. TECH. & INTELL. PROP. 239, 240 (2013).

<sup>6</sup> See Meg Leta Ambrose, *Lessons from the Avalanche of Numbers: Big Data in Historical Perspective*, 11 I/S: J.L. & POL'Y FOR INFO. SOC'Y 201, 203-04 (2015) (comparing the current “avalanche” of data with a similar period at the beginning of the Industrial Revolution and suggesting that, rather than being a “revolution” in itself, the expansion of available information may cause a revolutionary change in parts of society).

<sup>7</sup> See *id.* at 213-14; see also Margaret Hu, *Small Data Surveillance v. Big Data Cybersurveillance*, 42 PEPP. L. REV. 773, 781 (2015) (discussing the NSA's ability to track and target individuals based upon otherwise innocuous, everyday data).

<sup>8</sup> See RANDY E. BARNETT, RESTORING THE LOST CONSTITUTION: THE PRESUMPTION OF LIBERTY 92 (2004); KEITH E. WHITTINGTON, CONSTITUTIONAL INTERPRETATION: TEXTUAL MEANING, ORIGINAL INTENT, & JUDICIAL REVIEW 35 (1999); see also Lawrence B. Solum, *What Is Originalism?: The Evolution of Contemporary Originalist Theory*, in THE CHALLENGE OF ORIGINALISM: THEORIES OF CONSTITUTIONAL INTERPRETATION 12, 12 (Grant Huscroft & Bradley W. Miller eds., 2011) (describing this move); Keith E. Whittington, *The New Originalism*, 2 GEO. J.L. & PUB. POL'Y 599, 609 (2004) (same).

<sup>9</sup> Though I will explain CART more fully below, *infra* Part II.C, in brief, CART is the use of computers to identify original language conventions from electronically searchable primary sources.

<sup>10</sup> The first instance, so far as I am aware, of an originalist's use of CART, is Randy E. Barnett, *New Evidence of the Original Meaning of the Commerce Clause*, 55 ARK. L. REV. 847, 856-57 (2003) [hereinafter *New Evidence*] (doing this with the *Pennsylvania*

argue that originalists' conceptual move toward original meaning originalism, when coupled with the adoption of CART, will increase originalism's methodological rigor. Computer-assisted research techniques will achieve this by introducing the techniques of the empirical sciences and producing testable and reproducible results.

Originalism rests on the postulate that it is able to ascertain the Constitution's original meaning with reasonable accuracy and reliability. This will lead to a number of benefits, originalists argue. One benefit is that the Constitution's original meaning, faithfully followed, will lead to normatively attractive results, such as robust protection of natural rights<sup>11</sup> or good consequences.<sup>12</sup> Another benefit is that originalism leads to relative — not complete — stability in constitutional law.<sup>13</sup> It does so by tying constitutional interpretation, and resulting constitutional law, to the Constitution's determinate original meaning.<sup>14</sup>

A recurring criticism of originalism is that, on the contrary, originalism is *unable* to consistently deliver accurate original meaning.<sup>15</sup> I call this the Inaccuracy Critique. This Critique was used

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*Gazette*). To date, no scholar has identified and analyzed CART as a separate and additional tool of originalist analysis, one that responds to a powerful nonoriginalist criticism.

<sup>11</sup> See BARNETT, *supra* note 8, at 89-117, 153-252, 274-318.

<sup>12</sup> See JOHN O. MCGINNIS & MICHAEL B. RAPPAPORT, ORIGINALISM AND THE GOOD CONSTITUTION 2 (2013) ("We argue that originalism advances the welfare of the present-day citizens of the United States because it promotes constitutional interpretations that are likely to have better consequences today than those of nonoriginalist theories.").

<sup>13</sup> See Richard S. Kay, *Adherence to the Original Intentions in Constitutional Adjudication: Three Objections and Responses*, 82 NW. U. L. REV. 226, 243-59 (1988); see also Lawrence B. Solum, *The Fixation Thesis: The Role of Historical Fact in Original Meaning*, NOTRE DAME L. REV. 1, 6-7 (2015) [hereinafter *The Fixation Thesis*] (generalizing this claim and focusing it through a description of the fixation thesis (which, when coupled with the constraint principle, leads to constitutional stability within the area of constitutional determinacy)).

<sup>14</sup> See Solum, *The Fixation Thesis*, *supra* note 13, at 33-35 (describing the fixation thesis and constraint principle).

<sup>15</sup> This literature is large and growing. For a sampling see PATRICK J. CHARLES, HISTORICISM, ORIGINALISM, AND THE CONSTITUTION: THE USE AND ABUSE OF THE PAST IN AMERICAN JURISPRUDENCE 20 (2014); DENNIS J. GOLDFORD, THE AMERICAN CONSTITUTION AND THE DEBATE OVER ORIGINALISM 146-49 (2005); JACK N. RAKOVE, ORIGINAL MEANINGS: POLITICS AND IDEAS IN THE MAKING OF THE CONSTITUTION 6-7 (1996); Eric Berger, *Originalism's Pretenses*, 16 U. PA. J. CONST. L. 329, 348-60 (2013); Patrick J. Charles, *History in Law, Mythmaking, and Constitutional Legitimacy*, 63 CLEV. ST. L. REV. 23, 27 (2014); Richard Primus, *Limits of Interpretivism*, 32 HARV. J.L. & PUB. POL'Y 159, 170-71 (2009); Jack N. Rakove, *Joe the Ploughman Reads the Constitution, or, the Poverty of Public Meaning Originalism*, 48 SAN DIEGO L. REV. 575,

initially against original intent originalism and has recently been repeated against original meaning originalism.<sup>16</sup> The Inaccuracy Critique comes in a number of forms. All the forms share the common assertion that originalism cannot reliably ascertain the original meaning because originalism depends on an activity — the recovery of the Constitution’s meaning via the methods of history — that cannot “bear the weight” placed on it. Originalism’s methodology, in other words, is faulty.

One form of the Critique argues that originalism’s promise of normatively attractive constitutional law is a mirage because originalism cannot uncover the original meaning.<sup>17</sup> Originalism cannot, for instance, deliver constitutional law that protects natural rights because it cannot accurately uncover the original meaning. Another form is that originalism necessarily contains space for illegitimate judicial discretion.<sup>18</sup> Judges must choose constitutional

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578-79 (2011) [hereinafter *Joe the Ploughman*]; Gordon S. Wood & Scott D. Gerber, *The Supreme Court and the Uses of History*, 39 OHIO N.U. L. REV. 435, 443 (2013); see also Matthew J. Festa, *Applying a Usable Past: The Use of History in Law*, 38 SETON HALL L. REV. 479, 488-90 (2008) (surveying criticism of originalism’s use of history).

The most prolific critic of originalism, from an historian’s perspective, is Professor Saul Cornell. For a sampling of Professor Cornell’s relevant scholarship see Saul Cornell, Heller, *New Originalism, and Law Office History: “Meet the New Boss, Same as the Old Boss,”* 56 UCLA L. REV. 1095, 1100 (2009) [hereinafter *Heller*]; Saul Cornell, *Originalism on Trial: The Use and Abuse of History in District of Columbia v. Heller*, 69 OHIO ST. L.J. 625, 626 (2008) [hereinafter *Originalism on Trial*]; Saul Cornell, *The People’s Constitution vs. the Lawyer’s Constitution: Popular Constitutionalism and the Original Debate over Originalism*, 23 YALE J.L. & HUMAN. 295, 298 (2011) [hereinafter *The People’s Constitution*].

<sup>16</sup> The Inaccuracy Critique is not limited to nonoriginalists. Writing from an “Old Originalism” perspective, Joel Alicea and Donald Drakeman recently argued that “multiple public meanings that are inconsistent with each other” opens originalism to the charge that “the justice[s] will lean toward the most desirable [historical] source.” Joel Alicea & Donald L. Drakeman, *The Limits of New Originalism*, 15 U. PA. J. CONST. L. 1161, 1207-08 (2013).

<sup>17</sup> See, e.g., Berger, *supra* note 15, at 331 (“[T]he history and semantic practices surrounding many disputed clauses are too muddled for the interpreter to identify an objective, original public meaning. Moreover, many constitutional provisions were framed and ratified during periods of profound intellectual flux, when key constitutional concepts and terms changed shape, thus making it difficult or impossible to locate a single semantic meaning.”); see also Thomas B. Colby & Peter J. Smith, *Living Originalism*, 59 DUKE L.J. 239, 247 (2009) (“And because different versions of originalism focus on different historical criteria — and, as a result, frequently produce different constitutional meanings — how can originalists maintain that originalism is uniquely determinate, and thus uniquely consistent with law and democracy?”).

<sup>18</sup> See, e.g., Erwin Chemerinsky, *Foreword: The Vanishing Constitution*, 103 HARV. L. REV. 43, 92-93 (1989) (“Although proponents of originalism defend it as a way to

meaning, the argument goes, because originalism cannot accurately unearth the original meaning. A third form is the claim that originalism's inability to determine the Constitution's original meaning inevitably leads to interpretative instability. "[I]f," Professor Richard Primus claimed, "our view of some set of historical materials is never stable, it is hard to understand why we should expect consulting those materials to be a good way of deriving stable rules."<sup>19</sup>

Unlike criticisms that originalism leads to normatively bad constitutional interpretations,<sup>20</sup> the Inaccuracy Critique contends that originalism fails on its own terms — that its methodology is flawed. As recently summarized by Professor Helen Irving:

Originalism is a normative commitment wrapped in a questionable methodological confidence. Regardless of the multiple forms originalism takes, originalists are confident that the meaning . . . that animated the framing of the Constitution can be ascertained and, indeed, that they can ascertain it. The debate has largely focused, then, on whether modern-day scholars and jurists can ascertain original historical meaning or, alternatively, whether they have gotten the history right in attempting to do so.<sup>21</sup>

In sum, the critics argue that, for a host of reasons, the Constitution's meaning is either unrecoverable in principle or, if it is recoverable, interpreters' understanding of that meaning is necessarily subject to modification. Either way, constitutional law is built on a house of sand.<sup>22</sup> For example, it always remains possible for later interpreters to come across newly uncovered historical materials that would alter a prior interpretation. As legal historian and critic of

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constrain the Court, the constraint vanishes once they concede that the Court need only be faithful to the framers' abstract intentions."); Thomas B. Colby, *The Sacrifice of the New Originalism*, 99 GEO. L.J. 713, 715 (2011) ("By its very nature — and to a far greater degree than its proponents have tended to recognize — the New Originalism is a theory that affords massive discretion to judges in resolving contentious constitutional issues.").

<sup>19</sup> Primus, *supra* note 15, at 170-71.

<sup>20</sup> For example, one could argue that originalism is normatively unattractive because it privileges archaic meanings over current meanings.

<sup>21</sup> Helen Irving, *Outsourcing the Law: History and the Disciplinary Limits of Constitutional Reasoning*, 84 FORDHAM L. REV. 957, 957 (2015).

<sup>22</sup> See *Matthew* 7:26-27 (Douay-Rheims) ("And every one that heareth these my words, and doth them not, shall be like a foolish man that built his house upon the sand, And the rain fell, and the floods came, and the winds blew, and they beat upon that house, and it fell, and great was the fall thereof.").

originalism Jack Rakove summarized, “the notion that the Constitution had some fixed and well-known meaning at the moment of its adoption dissolves into a mirage.”<sup>23</sup>

In response to the Inaccuracy Critique lodged against original intent originalism,<sup>24</sup> originalists made a major conceptual move: they rearticulated originalism as original meaning originalism in place of original intent originalism.<sup>25</sup> Most originalists thereafter focused on the constitutional text’s public meaning when it was adopted,<sup>26</sup> which is grounded in original language conventions.<sup>27</sup>

In this Article, I build on that conceptual move, and I tie it to a proposed modification to the *method* of historical research in the original meaning originalism enterprise that will further make the process more accurate, thereby blunting the Inaccuracy Critique’s force.<sup>28</sup> In particular, I argue that original meaning originalism’s focus on the text’s conventional meaning at the time of ratification, coupled with now-widely available CART, diminishes the force of the Inaccuracy Critique.<sup>29</sup> In doing so, this Article follows historian — and prominent nonoriginalist critic — Professor Saul Cornell’s admonition: “The notion of empirically investigating actual patterns of Founding era reading and interpretation and using these to promote a better understanding of the foundations of our constitutional system makes a good deal of sense.”<sup>30</sup> By harnessing the power of Big Data, originalism moves toward this more rigorous methodology.

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<sup>23</sup> RAKOVE, *supra* note 15, at 6.

<sup>24</sup> See BARNETT, *supra* note 8, at 93 (“This shift to original public meaning obviates some, but not all, of the most telling practical objections to originalism . . . .”); Solum, *The Fixation Thesis*, *supra* note 13, at 22-24 (describing this evolution); see also *id.* at 4.

<sup>25</sup> See generally Whittington, *supra* note 8 (describing this move).

<sup>26</sup> See BARNETT, *supra* note 8, at 92.

<sup>27</sup> See Lawrence B. Solum, *Communicative Content and Legal Content*, 89 NOTRE DAME L. REV. 479, 498 (2013) [hereinafter *Communicative Content*].

<sup>28</sup> See Tara Smith, *Originalism’s Misplaced Fidelity: “Original” Meaning Is Not Objective*, 26 CONST. COMMENT. 1, 6 (2009) (“Originalism . . . does not offer a method for how to achieve [its] goal.”).

<sup>29</sup> As I describe further below, my claim is that computer-assisted research techniques will eliminate the Critique in some cases, diminish its power in others, and leave the Critique untouched in still others.

<sup>30</sup> Saul Cornell, *Conflict, Consensus & Constitutional Meaning: The Enduring Legacy of Charles Beard*, 29 CONST. COMMENT. 383, 407 (2014) [hereinafter *Conflict, Consensus*]; see also Saul Cornell, *Originalism as Thin Description: An Interdisciplinary Critique*, 84 FORDHAM L. REV. RES GESTAE 1, 2 (2015) [hereinafter *Originalism as Thin Description*] (“I pointed out that originalism lacked a rigorous empirical method for analyzing what texts meant in the past.”).

Original meaning originalism's interpretive core is language conventions. The language conventions contemporary with the Framing and Ratification are the building blocks of original meaning. Computer-assisted research permits — in a way unassisted techniques do not — the relatively easy and relatively accurate recovery of these language conventions. Originalism's conceptual change, combined with this change in *how* originalists perform research, provides (much of) the interpretative accuracy claimed by originalists. However, as I describe in Part III.C, in at least four situations, CART does not eliminate the Inaccuracy Critique.

Below, in Part I, I begin by briefly describing originalism's theoretical evolution, the Inaccuracy Critique, and originalism's resultant transformation to original meaning originalism. I show how, despite this conceptual move, critics continued to insist that originalism suffered from the Inaccuracy Critique. Part II describes CART. There, I argue that CART increases originalism's methodological rigor, fits well with originalism after its conceptual evolution, and facilitates originalism's move to original meaning. In Part III, I first show that originalism's use of CART blunts the Inaccuracy Critique. I then identify those facets of the Constitution where CART likely does not work or work sufficiently well to eliminate the Critique. In the end, I conclude that CART is one tool originalists should use to blunt the Inaccuracy Critique.

This Article is a proposal that originalists utilize CART to increase originalism's accuracy. My concrete suggestions on how originalists should do so<sup>31</sup> are necessarily preliminary. Over time, originalists utilizing CART will refine the process and, in doing so, accept or reject my introductory proposals.

## I. SETTING THE STAGE: ORIGINALISM'S THEORETICAL EVOLUTION

### A. *Original Intent's Discontents: The Inaccuracy Critique*

When originalism arose in the late 1970s and early 1980s, its core claim was that the Constitution's authoritative meaning is its originally intended meaning.<sup>32</sup> This was the meaning the Framers and/or

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<sup>31</sup> For instance, I propose that originalists create stables of potential language conventions to ease the burden of performing CART research, *infra* Part II.C.

<sup>32</sup> See RAOUL BERGER, GOVERNMENT BY JUDICIARY: THE TRANSFORMATION OF THE FOURTEENTH AMENDMENT 402-10 (2d ed. 1997); Kay, *supra* note 13, at 226; Whittington, *supra* note 8, at 603.

Ratifiers intended the constitutional text to possess.<sup>33</sup> For example, one would ask, “What did James Madison and members of the first Congress intend ‘religion’ in the First Amendment to mean?”

Originalists argued that originalism’s most valuable characteristics were related and two-fold. First, originalism would cabin judicial discretion by tying judges to the Constitution’s original intent.<sup>34</sup> Second, this restrained federal judiciary would better respect democracy by less frequently striking down democratically enacted laws.<sup>35</sup>

Original intent originalism was subject to a number of criticisms. I focus on one family of criticisms: originalism leads to interpretative inaccuracy because it depends on a form of analysis — the recovery of the Constitution’s originally intended meaning via the methods of history — that cannot adequately perform the task. Instead, the critics argued, the Constitution’s intended meaning is in principle unrecoverable, or practically difficult to recover, which leads to interpretative inaccuracy.<sup>36</sup> This claim was summarized by Paul Brest in 1980, where he argued that originalism “produces a highly unstable constitutional order. The claims of [originalist] scholars . . . demonstrate that a settled constitutional understanding is in perpetual jeopardy of being overturned by new light on the adopters’ intent-shed by the discovery of historical documents, re-examinations of known documents, and reinterpretations of political and social history.”<sup>37</sup>

The interpretative inaccuracy identified by critics arose through the same basic process. When the original intent does not exist or, when

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<sup>33</sup> Some scholars distinguished another form of originalism, original understanding originalism, which identifies the Ratifiers’ understanding of the Constitution as its authoritative meaning. See, e.g., Gregory E. Maggs, *A Concise Guide to Using Dictionaries from the Founding Era to Determine the Original Meaning of the Constitution*, 82 GEO. WASH. L. REV. 358, 362-63 (2014) (doing this); see also Robert G. Natelson, *The Founders’ Hermeneutic: The Real Original Understanding of Original Intent*, 68 OHIO ST. L.J. 1239, 1239 (2007) (“[T]he Article concludes that the Founders were ‘original-understanding originalists.’ This means that they anticipated that constitutional interpretation would be guided by the subjective understanding of the ratifiers when such understanding was coherent and recoverable and, otherwise, by the Constitution’s original public meaning.”).

<sup>34</sup> See Paul Brest, *The Misconceived Quest for the Original Understanding*, 60 B.U. L. REV. 204, 204 (1980) (noting that one of the arguments made in favor of originalism was that it “constrains the discretion of decisionmakers”).

<sup>35</sup> See Whittington, *supra* note 8, at 601-03 (providing a review of the characteristics of early originalism).

<sup>36</sup> For a general review of the use of history, and criticism of that usage, in constitutional interpretation see Festa, *supra* note 15, at 486-504.

<sup>37</sup> Brest, *supra* note 34, at 231.

the original intent may exist but it is practically inaccessible, judges (at best) perceived a mirage of original intent, or (at worst) created meaning they knew did not exist.<sup>38</sup> In any case, judges were inaccurately identifying the Constitution's intended meaning.

Critics formulated at least six specific reasons originalism inaccurately identified the Constitution's originally intended meaning. First, some critics argued that, in principle, there is no — fact-of-the-world — one originally intended meaning.<sup>39</sup> This was because the Constitution's authors were numerous bodies<sup>40</sup> of individuals. There is no way to sum the intentions of a body of individuals, much less multiple bodies. Instead, there are multiple and conflicting intended meanings.<sup>41</sup>

Second, even if the original intent is, in principle, recoverable, it is so difficult to recover that judges will regularly — even in good faith — make mistakes.<sup>42</sup> Regardless of the type of task at issue, the more difficult the task, the more frequently humans will make mistakes and fail at the task. Through lack of knowledge, or skill, or time, or for a host of other reasons,<sup>43</sup> recovering the originally intended meaning of multiple individuals, in multiple bodies, centuries ago, will challenge judges' capacities, and cause them to — or *enable* them to — make mistakes.<sup>44</sup>

Third, the difficulty of historical recovery is compounded by the unreliability of the historical record upon which originalists rely.<sup>45</sup> For instance, critics pointed out that James Madison's *Notes* of the

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<sup>38</sup> See Suzanna Sherry, *The Indeterminacy of Historical Evidence*, 19 HARV. J.L. & PUB. POL'Y 437, 441 (1996) (“[P]rofessional historians do not attempt to answer the questions . . . because they recognize that history is indeterminate.”).

<sup>39</sup> See Brest, *supra* note 34, at 214-15, 221-22; Ronald Dworkin, *The Forum of Principle*, 56 N.Y.U. L. REV. 469, 477 (1981); see also Cornell, *Originalism on Trial*, *supra* note 15, at 631 (“[M]ost historians have abandoned the search for a single monolithic meaning for the Constitution.”).

<sup>40</sup> These bodies included the Framers in the Philadelphia Convention and the Ratifiers in the various state ratification conventions.

<sup>41</sup> See Alicea & Drakeman, *supra* note 16, at 1206-08 (raising this criticism against original meaning originalism).

<sup>42</sup> See Brest, *supra* note 34, at 214, 220.

<sup>43</sup> See Wood & Gerber, *supra* note 15, at 443 (“[H]istory is too complicated . . .”).

<sup>44</sup> See Cornell, *Originalism on Trial*, *supra* note 15, at 630 (arguing that Justice Scalia's “use of historical texts is entirely arbitrary and result oriented” in *D.C. v. Heller*); see also Alicea & Drakeman, *supra* note 16, at 1208 (raising this criticism against original meaning originalism).

<sup>45</sup> See James H. Hutson, *The Creation of the Constitution: The Integrity of the Documentary Record*, 65 TEX. L. REV. 1, 1-2 (1986).

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Philadelphia Convention, the most comprehensive source of the Convention, provided an imprecise record of the Convention's proceedings.<sup>46</sup> The record is incorrect in some places, has gaps in others, and contains tensions in still others. These flaws will cause judges to misperceive the original intent or create a false original intent.

Fourth — and a favorite of professional historians — the difficulty of historical recovery is further compounded by the lack of professional preparation of lawyers, and therefore of judges, for the necessary historical inquiry.<sup>47</sup> Professional training as an historian, critics contended, equips one to identify, review, and synthesize the historical materials necessary to ascertain the original intent, while legal education does not, at least not as well.<sup>48</sup> As summarized by Professors Balkin and Levinson:

Consider that neither of the two most prominent “originalists” on the United States Supreme Court — Justices Scalia and Thomas — has any professional training as historians, but that has not stopped them from criticizing their colleagues and others for failing to abide by what the framers meant. Conversely, most academics with joint degrees in history and law tend to be highly skeptical of the claims asserted by the most stringent “originalists,” not least because of the fact that most trained historians are considerably more nuanced in their conclusions about the meaning of past events than are

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<sup>46</sup> See MARY SARAH BILDER, *MADISON'S HAND: REVISING THE CONSTITUTIONAL CONVENTION 179-201* (2015) (claiming that Madison revised his notes of the Philadelphia Convention more than is commonly known and that his notes suffered from other types of unreliability); Hutson, *supra* note 45, at 1; see also Cornell, *The People's Constitution*, *supra* note 15, at 298 (criticizing originalist reliance on contemporary dictionaries because they were not accurate descriptions of contemporary language usage).

<sup>47</sup> See Charles L. Barzun, *Impeaching Precedent*, 80 U. CHI. L. REV. 1625, 1673 (2013) (“The problem is further aggravated by the fact that such historical inquiry is conducted by lawyers, who are not known for being very good historians.”); Cornell, *Originalism on Trial*, *supra* note 15, at 629 (“[O]riginal-intent originalism [does] not live up to the rigors of professional history . . . .”); Irving, *supra* note 21, at 958-60 (summarizing this critique); Jack N. Rakove, *Fidelity Through History (or to It)*, 65 *FORDHAM L. REV.* 1587, 1588 (1997) (“[T]here is good historical evidence that jurists rarely make good historians, and that a theory of interpretation which requires judges to master the ambiguities of history demands a measure of faith that we, as citizens and scholars alike, should be reluctant to profess.”); see also Festa, *supra* note 15, at 504-10 (describing this critique).

<sup>48</sup> See Gordon S. Wood, *Ideology and the Origins of Liberal America*, 44 *WM. & MARY Q.* 628, 632-33 (1987).

originalist lawyers. Indeed, a familiar criticism of lawyers, whether or not they are originalists, is that they engage all too often in what is called “law-office history” — mining the historical record to support their favored legal conclusions.<sup>49</sup>

Relatedly, training in history also inculcates a professional ethic that is different from that imparted by legal education.<sup>50</sup> Critics contended that historians are socialized to look for nuance and utilize fine-grained analysis; they embrace historical tensions, while lawyers are taught to arrive at the (one or most) correct answer.<sup>51</sup> This different approach to the same subject will lead judges to see determinate meaning when there is none, or fail to grasp the multiplicity of meanings and therefore foreclose alternative meanings.<sup>52</sup>

Fifth, there is always the possibility that newly-discovered historical evidence will modify a prior interpretative understanding. The historical record improves over time through various mechanisms, and historians continually revise and update their own and the profession's consensus views on historical events, periods, and claims. A possible instance of this is the relatively recent historical recovery of evidence of the Ninth Amendment's original meaning in part because of the quirk of its original label as the eleventh amendment.<sup>53</sup> Prior interpretations, which, at the time of their articulation, were reasonable in light of the extant evidence, will be revised to account for newly discovered evidence, thereby highlighting interpretative inaccuracy.

Lastly, and perhaps worst of all, the difficulty of historical recovery caused by the preceding five reasons, will also provide cover for judges who, in *bad* faith, wish to manipulate history to achieve a desired result.<sup>54</sup> For instance, Donald Drakeman has detailed how Justices

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<sup>49</sup> Jack M. Balkin & Sanford Levinson, *Law and the Humanities: An Uneasy Relationship*, 18 *YALE J.L. & HUMAN.* 155, 165 (2006).

<sup>50</sup> See Berger, *supra* note 15, at 365-68.

<sup>51</sup> See *id.*

<sup>52</sup> See *id.*

<sup>53</sup> See KURT T. LASH, *THE LOST HISTORY OF THE NINTH AMENDMENT* xiv (2009) [hereinafter *THE LOST HISTORY*] (finding that the Ninth Amendment was the “victim of historical accident, mistaken identity . . . and misplaced documents” which obscured access to this “lost history”).

<sup>54</sup> See Charles, *supra* note 15, at 26; Cornell, *Conflict, Consensus*, *supra* note 30, at 406 (attacking original meaning originalism because it allows originalists to “selectively pluck evidence from whatever source suits their particular ideological agenda”); Richard A. Posner, *Past-Dependency, Pragmatism, and Critique of History in Adjudication and Legal Scholarship*, 67 *U. CHI. L. REV.* 573, 593 (2000) (“[H]istory provides a useful mask for decisions reached on other grounds. I add here that it is

Black and Rutledge, to varying degrees, deployed historical claims to support and justify their preconceived interpretative claims in *Everson v. Board of Education*.<sup>55</sup> Critics could point to *Everson* as an example of how the historical record's indeterminacy provided cover for judicial misinterpretation.

These challenges to the originalist project of historical recovery of the Constitution's originally intended meaning, critics concluded, led to interpretative inaccuracy. That is, even *assuming* good faith and diligent research, originalism will inevitably lead to inaccurate constitutional meaning. I call this the Inaccuracy Critique.

### B. *The Conceptual Move to Original Meaning Originalism*

In response to this (and other) criticism(s), originalists made a major conceptual move. Many abandoned original intent originalism and embraced original meaning originalism. The key point of this move, as I describe below, is making the more-readily accessible original conventional meaning of the text the axis of interpretation, rather than individual or group intent.<sup>56</sup> Originalists explicitly did so to overcome the criticisms laid out above.<sup>57</sup>

Original meaning originalism's interpretative core is the public meaning of the Constitution's text, when it was ratified. Instead of seeking Framers and/or Ratifiers' subjective intent, original meaning originalists look for a social fact. To ascertain the original meaning of "religion" in the First Amendment, for example, the original meaning originalist will initially look for evidence of how that word was conventionally utilized in the late-eighteenth century United States. The originalist will look to the Constitution's text and structure, contemporary dictionaries, contemporary usage in American public and private life — such as in newspapers, speeches, and diaries — as well as the sources the original intent originalist also used.<sup>58</sup>

Original meaning originalism, originalists argued, was less susceptible to the Inaccuracy Critique. They argued that original

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almost always a mask because of the indeterminacy of most historical inquiries of the sort that might be thought to bear on legal decisionmaking . . ."); Wood & Gerber, *supra* note 15, at 446.

<sup>55</sup> See DONALD L. DRAKEMAN, CHURCH, STATE, AND ORIGINAL INTENT 74-148 (2010).

<sup>56</sup> See Wood & Gerber, *supra* note 15, at 444 (acknowledging that original meaning originalism allows originalists to "escape[] a lot of . . . the problems").

<sup>57</sup> See BARNETT, *supra* note 8, at 93 ("This shift to original public meaning obviates some, but not all, of the most telling practical objections to originalism . . ."); Solum, *The Fixation Thesis*, *supra* note 13, at 22-24 (describing this evolution); see also *id.* at 4.

<sup>58</sup> See BARNETT, *supra* note 8, at 93.

meaning originalism avoided the theoretical problems with summing group intentions, such as that of the Framers or Ratifiers.<sup>59</sup> Instead of ascertaining the intent of each individual, and then amalgamating those intents for a collection of people, originalists ascertain patterns in spoken and written language.

Originalists also argued that language conventions, unlike subjective intentions, are relatively accessible in the historical record. The historical record from the Founding and other important constitutional periods possesses robust evidence of language usage. For example, to identify the meaning of “Commerce” in Art. I, sec. 8, cl. 3, the originalist will review speeches, debates, and writings, to find whether the word was used conventionally and, if so, what the convention was.<sup>60</sup>

### C. *Original Meaning Originalism's Internal Architecture*

Following originalism's move to original public meaning originalism, originalists have more thoroughly explained originalist interpretation. The scholar most productive in this post-conceptual-move analysis is Professor Lawrence Solum.<sup>61</sup> As described by Professor Solum, originalism has a compound architecture. In this architecture of originalism, the text's original conventional meaning is the initial building block of the final original public meaning.

Original meaning originalism identifies the Constitution's communicative content as its meaning.<sup>62</sup> This communicative content, in turn, is composed of the text's semantic meaning, augmented and clarified by “contextual enrichment.”<sup>63</sup> The text's semantic meaning consists of its conventional meaning, as modified by syntax and grammar.<sup>64</sup>

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<sup>59</sup> See *id.* at 90-93; Solum, *The Fixation Thesis*, *supra* note 13, at 4.

<sup>60</sup> See, e.g., Barnett, *New Evidence*, *supra* note 10, at 856-62 (doing this with the *Pennsylvania Gazette*); Randy E. Barnett, *The Original Meaning of the Commerce Clause*, 68 U. CHI. L. REV. 101, 101 (2001) [hereinafter *The Original Meaning*] (doing this with the Constitutional Convention, the Ratification Debates, and the *Federalist Papers*).

<sup>61</sup> Professor Solum's scholarship on originalism is voluminous. See *Archive of Scholarship by Lawrence B. Solum*, GEO. L., <https://www.law.georgetown.edu/faculty/solum-lawrence-b.cfm> (last visited July 28, 2015).

<sup>62</sup> See Solum, *Communicative Content*, *supra* note 27, at 486-88; Solum, *The Fixation Thesis*, *supra* note 13, at 8. Originalists also identify the Constitution's communicative content as its authoritative meaning, and I briefly address that characteristic, below. See Solum, *The Fixation Thesis*, *supra* note 13, at 8 (describing the constraint principle).

<sup>63</sup> Solum, *Communicative Content*, *supra* note 27, at 487-88.

<sup>64</sup> See *id.* at 487, 491, 497; Lawrence B. Solum, *Intellectual History as Constitutional*

Contextual enrichment is the ways in which context both provides richness to and (potentially) modifies conventional meaning (to facilitate communication in a particular context).<sup>65</sup> Contextual enrichment is a relatively complex process. It is the phenomenon where the publicly available context in which the Constitution's text was drafted and ratified provides additional information about the text's meaning, additional information that enhances its meaning. Contextual enrichment includes, among other things, the publicly available purposes for which the text was adopted, the text's immediate and long-term historical background, and the broader milieu in which the text was adopted.

This Article's focus is on the foundation of originalist interpretation: the text's conventional meaning when it was ratified. This conventional meaning forms the basis of the (authoritative) original meaning.<sup>66</sup> Though I believe that CART has the capacity to also assist originalism's recovery and employment of contextual enrichment, I will only briefly summarize my tentative thoughts on that subject, in Part II.F, because of space constraints.

One further, related distinction that is important to clarify this Article's scope is the distinction between interpretation and construction. Interpretation is the process of ascertaining the Constitution's text's determinate original meaning.<sup>67</sup> Construction is the process of constructing constitutional doctrine when the text's original meaning is underdetermined, when it does not provide one right answer.<sup>68</sup> This can occur for a number of reasons, the most prominent of which are vagueness and ambiguity.<sup>69</sup> Vagueness is when the text's meaning admits of gray areas where it is not clear whether the text applies or not. Ambiguity is when the text's meaning may apply to two or more referents. I argue below that CART assists with interpretation *and* with construction because CART facilitates

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*Theory*, 101 VA. L. REV. 1111, 1126 (2015) [hereinafter *Intellectual History*].

<sup>65</sup> See Solum, *Communicative Content*, *supra* note 27, at 488. For example, the context of a private conversation between friends is different — and operates differently upon the conventional meaning — than the Constitution's Framers' communication with the Ratifiers and the American People.

<sup>66</sup> As a reminder, this occurs once it is subjected to the rules of grammar and syntax, and then filtered through contextual enrichment.

<sup>67</sup> See Lee J. Strang, *An Originalist Theory of Precedent: The Privileged Place of Originalist Precedent*, 2010 BYU L. REV. 1729, 1756-57.

<sup>68</sup> See *id.* at 1757-62.

<sup>69</sup> See Lawrence B. Solum, *Originalism and Constitutional Construction*, 82 FORDHAM L. REV. 453, 469-72 (2010) (describing these and other facets of construction) [hereinafter *Originalism and Constitutional Construction*].

uncovering the original language conventions that form the basis for the Constitution's determinate communicative content, as well as identifying when those conventions do not exist.

The next subsection briefly describes why conventional meaning is important to originalism. This brief discussion is important because many critics seem unaware of why language conventions possess a central role in originalist interpretation. My experience suggests that critics see originalism placing inordinate weight on something (perceived as) so ordinary and normatively inert.

*D. Justifications for Original Meaning Originalism Hinge on the Text's Original Conventional Meaning*

Within originalist theory, the text's original conventional meaning is crucial to why (originalists argue) originalism is the best theory of interpretation. Originalists' justifications for originalism fall into two basic categories: internal and external.<sup>70</sup> Internal justifications take for granted the widely accepted facets of American constitutional practice and argue that originalism matches those practices better than alternative interpretative methodologies. For instance, originalists argue that originalism is better able to account for the fact that at the core of our legal practice is a written Constitution.<sup>71</sup> External justifications argue that originalism will lead to a good state of affairs (or a better state of affairs than other interpretative methods).<sup>72</sup> I briefly note both sort of originalist justifications.

Our written Constitution arose from a unique historical context. The U.S. Constitution is (at least) the document that was drafted by the Framers and ratified by the state ratification conventions in 1787–88. The Framers in the Philadelphia Convention worked in secret. Their goal was to create a form of government that Americans would adopt in place of the Articles of Confederation. To accomplish

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<sup>70</sup> See WHITTINGTON, *supra* note 8, at 110; see also RONALD DWORKIN, *TAKING RIGHTS SERIOUSLY* 106-07 (1977) (articulating the analogous categories of fit and justification).

<sup>71</sup> See, e.g., BARNETT, *supra* note 8, at 100-09; WHITTINGTON, *supra* note 8, at 47-60; see also Christopher R. Green, "This Constitution": *Constitutional Indexicals as a Basis for Textualist Semi-Originalism*, 84 NOTRE DAME L. REV. 1607, 1612 (2009) (making this sort of argument); Lee J. Strang, *Originalism's Subject Matter: Why the Declaration of Independence Is Not Part of the Constitution*, 89 S. CAL. L. REV. 637, 638 (2016) [hereinafter *Originalism's Subject Matter*].

<sup>72</sup> See Cass R. Sunstein, *There Is Nothing that Interpretation Just Is*, 30 CONST. COMMENT. 193, 193-94 (2015) (arguing that "[a]ny approach [to constitutional interpretation] must be defended on normative grounds").

this goal, Americans in the ratification conventions had to understand the meaning of the text the Framers employed in the Constitution. If the Framers used, for instance, idiosyncratic meanings of the Constitution's text, their months-long effort to craft a sensible plan of government would have been frustrated because their fellow Americans would not have been able to access the "insider's" meaning the Framers' employed, and the Ratifiers would have mistakenly utilized a different meaning whose congruence with a sensible plan of government would have been purely fortuitous.<sup>73</sup> To effectuate communication, the Framers employed a meaning accessible to both them and Americans outside the walls of Independence Hall: the text's conventional meaning (as modified by publicly available context). Therefore, our written Constitution's historical context, which is a widely accepted facet of our constitutional practice, supports use of the text's original conventional meaning.

Originalists have also offered a wide array of external normative justifications that cover the figurative waterfront. These include: assisting popular sovereignty,<sup>74</sup> protecting natural rights,<sup>75</sup> securing good consequences,<sup>76</sup> and facilitating human flourishing.<sup>77</sup> In each of these normative justifications for originalism, the Constitution's original meaning — and hence its conventional meaning — is the lynchpin of the argument. Without the text's original meaning, the respective justifications would fail.

Let me provide one example. Professors John McGinnis and Michael Rappaport recently argued that originalism leads to the best consequences of any plausible theory of constitutional interpretation.<sup>78</sup> In particular, they argued that the Constitution's original meaning leads to better consequences than nonoriginalist judicial precedent because the original meaning was adopted via a supermajoritarian procedure by the American people.<sup>79</sup> Their key insight is that the American people are a diverse group<sup>80</sup> — and have

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<sup>73</sup> See generally Steven D. Smith, *Law Without Mind*, 88 MICH. L. REV. 104 (1989) (making this argument more generally).

<sup>74</sup> See WHITTINGTON, *supra* note 8, at 110-59.

<sup>75</sup> See BARNETT, *supra* note 8, at 3-5, 53-54, 116-17.

<sup>76</sup> See MCGINNIS & RAPPAPORT, *supra* note 12, at 11-18.

<sup>77</sup> See Lee J. Strang, *The Clash of Rival and Incompatible Philosophical Traditions Within Constitutional Interpretation: Originalism Grounded in the Central Western Philosophical Tradition*, 28 HARV. J.L. & PUB. POL'Y 909, 983-99 (2005) (summarizing an early version of this argument).

<sup>78</sup> See generally MCGINNIS & RAPPAPORT, *supra* note 12.

<sup>79</sup> See *id.* at 62-138.

<sup>80</sup> See *id.* at 14, 27, 33-61, 81, 202.

been for a long time, including along important axes, such as religious and political views — so that the American People's agreement on a proposition is relatively strong evidence of the proposition's soundness.<sup>81</sup> Nonoriginalist precedent, by contrast, did not go through a similar supermajoritarian process — it was adopted by a relatively small, relatively insular, and relatively homogeneous group — and, therefore, we have less confidence that its propositions are as substantively sound as the original meaning.<sup>82</sup>

McGinnis and Rappaport's argument hinges on the Constitution's text having gone through the rigorous supermajoritarian ratification processes. The American People, when they ratified the Constitution's text, understood it as its original meaning,<sup>83</sup> which was grounded on its original conventional meaning. McGinnis and Rappaport's normative argument is one example of why originalism privileges the Constitution's original and its conventional meaning. As they summarized: “[T]he beneficence of the Constitution is connected to the supermajoritarian process from which it arose. Originalism is the appropriate method of constitutional interpretation because it captures the meaning that passed through the supermajority process. Consequently, the results generated by originalism are likely to be beneficial.”<sup>84</sup>

Other originalists' justifications similarly give the Constitution's text's original conventional meaning an architectonic role,<sup>85</sup> and they do so for a variety of reasons. My claim here assumes that originalism is the correct interpretative methodology and my goal is to proceed from that premise to show that CART is able to make originalism's recovery of original language conventions more accurate.

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<sup>81</sup> See *id.* at 33-99.

<sup>82</sup> Compare *id.* at 175-78 (contrasting the benefits of following the original meaning of the Constitution, which received its meaning through a supermajoritarian process, with following precedent, which lacks such treatment), with JACK M. BALKIN, *LIVING ORIGINALISM* 277-319 (2011) (arguing that courts play key roles in responding to and facilitating popular constitutional movements that embody the movements' constitutional constructions in constitutional doctrine).

<sup>83</sup> The Constitution's text's conventional meaning, as I described above, is the foundational component of the Constitution's original meaning, but not its only component. For instance, the conventional meaning is modified by contextual enrichment. For Professors McGinnis and Rappaport, contextual enrichment includes the original methods of interpretation as well. See MCGINNIS & RAPPAPORT, *supra* note 12, at 116-38.

<sup>84</sup> *Id.* at 3.

<sup>85</sup> See, e.g., Strang, *Originalism's Subject Matter*, *supra* note 71, at 665-67 (describing a similar proposition).

E. *Continued Nonoriginalist Criticism Using the Inaccuracy Critique*

Originalism's conceptual change did not mean that critics ceased to raise the Inaccuracy Critique (or many other criticisms!<sup>86</sup>).<sup>87</sup> Critics continued to argue that, "just like older iterations of originalism, semantic originalism fails to appreciate fully the complexity and contradictions often inherent in the relevant historical evidence."<sup>88</sup> Critics insisted that originalism's reliance on history continued to open it to the Inaccuracy Critique. These current critiques echo those made a generation ago against original intent originalism.<sup>89</sup>

For example, Professor Eric Berger argued that original meaning originalism would continue to deliver unstable constitutional meaning because the "evidence . . . is complicated and contradictory."<sup>90</sup> Not only is "the historical evidence needed to identify semantic meanings . . . often difficult to find,"<sup>91</sup> echoing Professor Saul Cornell, he claimed that historical meaning is often "far from clear."<sup>92</sup> Also, he asserted that judges are not adept at adjudicating debates over contested historical meaning because of their lack of training.<sup>93</sup> With the historical evidence so unclear, and with meaning in flux at the time of Ratification,<sup>94</sup> judges would frequently have to make close calls — something that their untrained judgment is unequipped to do — which will also result in inaccurate meaning.<sup>95</sup> As summarized by Professor Thomas Colby:

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<sup>86</sup> Professors Thomas B. Colby and Peter J. Smith, in particular, have published a series of thoughtful criticisms. See, e.g., Colby & Smith, *supra* note 17, at 239; Colby, *supra* note 18, at 741-42; Peter J. Smith, *How Different Are Originalism and Non-Originalism?*, 62 HASTINGS L.J. 707, 707 (2011).

<sup>87</sup> Professor Saul Cornell is the most prolific critic of original meaning originalism's methodology, from an historian's perspective. See *supra* note 15 and accompanying text.

<sup>88</sup> Berger, *supra* note 15, at 347; see also Rakove, *Joe the Ploughman*, *supra* note 15, at 583. Professor Cornell's scholarship is directed primarily at original meaning originalism. See *supra* note 15 and accompanying text.

<sup>89</sup> See Stephen M. Griffin, *Rebooting Originalism*, 2008 U. ILL. L. REV. 1185, 1186-88 (2008) (arguing that public meaning originalism remains subject to earlier critiques).

<sup>90</sup> Berger, *supra* note 15, at 348.

<sup>91</sup> *Id.* at 355.

<sup>92</sup> *Id.* at 348-49; see also Rakove, *Joe the Ploughman*, *supra* note 15, at 578-79 ("Historical answers may be just as indeterminate as other forms of legal reasoning, allowing judges to pick and choose the evidence that satisfies their predispositions.").

<sup>93</sup> See Berger, *supra* note 15, at 350.

<sup>94</sup> See *id.* at 351.

<sup>95</sup> See *id.* at 355-58.

I should make clear that I do not mean that the New Originalism is completely successful in its efforts to parry . . . the . . . objections to the Old Originalism. . . . Perhaps chief among them is that, as many New Originalists themselves have recognized, the original objective meaning can often be established only by recourse to evidence of original intent or original expected application. . . . As such, despite all of the brassy sound and fury about abandoning actual intentions, understandings, and expectations, the historical inquiry . . . continues to haunt even the New Originalism.<sup>96</sup>

The Inaccuracy Critique is also being raised by scholars writing from an original intent perspective. “This array of inconsistent uses of the key constitutional language creates a methodological conundrum for New Originalists,” Joel Alicea and Donald Drakeman argued, “quite similar to the ‘summing’ problem they have linked with Old Originalism.”<sup>97</sup>

My tentative view is that original meaning originalism is not readily susceptible to these criticisms. However, let me note one way in which the move to original meaning theoretically exacerbated the Inaccuracy Critique. Original meaning originalism enormously expanded the available data from which to ascertain constitutional meaning. Instead of looking through (only) the various conventions’ debates and Framers’ and Ratifiers’ personal papers, originalists now also had to grapple with a body of data that, in principle, included *all* written materials from the time period.

This Article assumes that original meaning originalism is susceptible to the Inaccuracy Critique and, in Part II, I show how CART assists originalism, in light of its conceptual evolution, to rebut the Critique.

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<sup>96</sup> Colby, *supra* note 18, at 741-42. Professor Richard Primus summarized originalism’s conundrum this way:

This does not mean that judges are deliberately manipulating their accounts of original meaning. Each may sincerely believe that original meanings support his or her resolution of the case. Indeed, each judge may authentically believe himself constrained to reach a given result on the basis of original meanings, even if other judges authentically believe themselves constrained to reach the opposite result on the same basis. But in a great many cases, judges seem to conclude that the relevant original meanings support the same results that we suspect they would reach if they had not consulted original meanings.

Primus, *supra* note 15, at 171.

<sup>97</sup> Alicea & Drakeman, *supra* note 16, at 1206.

At the same time, in Part III, I explain how CART blunts, but does not eliminate, these (both the old and new) critiques.

## II. COMPUTER-ASSISTED RESEARCH TECHNIQUES INCREASE ORIGINALISM'S METHODOLOGICAL RIGOR

### A. Introduction

The story told thus far is the standard narrative. What I think is missing, and what this Article adds, is that originalists' theoretical move to original meaning has opened originalism to a change in method: the adoption of CART. Computer-assisted research techniques, I argue below, assist originalism's conceptual change, increase its methodological rigor, and, in Part III, I show how CART blunts the Inaccuracy Critique.

Computer-assisted research techniques are a manifestation of the broader field of corpus linguistics. Originalism's adoption of CART will increase its methodological rigor by providing testable and reproducible results.

### B. A Brief Tour of Corpus Linguistics

Before explaining CART, I first provide a brief introduction to the field of corpus linguistics, of which CART is a particular application to the context of originalist interpretation. Corpus linguistics is a burgeoning field of study that empirically analyzes bodies of words, typically located in computer databases.<sup>98</sup> Analysis today is normally performed using computers.<sup>99</sup> Corpus linguistics is employed for many purposes,<sup>100</sup> but its primary use has been "to see how words are used . . . in common parlance."<sup>101</sup>

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<sup>98</sup> See TONY McENERY & ANDREW HARDIE, CORPUS LINGUISTICS: METHOD, THEORY AND PRACTICE xii (2012) (describing corpus linguistics as "the study of language data" aided by the computer analysis of text); 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, 190 (2012) [hereinafter *Hard Cases*] (providing the most significant application to law to date).

<sup>99</sup> See Mouritsen, *Hard Cases*, *supra* note 98, at 190. A body of words is called a corpus. The Corpus of Contemporary American English, with more than 520 million words, is frequently used. *Corpus of Contemporary American English*, BYU, <http://corpus.byu.edu/coca/> (last visited Aug. 30, 2015).

<sup>100</sup> For example, one use of corpus linguistics is to attempt to map how humans think, on the assumption that our language mirrors our thought processes.

<sup>101</sup> Lawrence M. Solan, *The New Textualists' New Text*, 38 LOY. L.A. L. REV. 2027, 2059-60 (2005) [hereinafter *New Textualists*].

Corpus linguistics has had a very modest impact on legal practice and scholarship, nearly all of it very recent,<sup>102</sup> including in the area of constitutional interpretation.<sup>103</sup> This subject is so new to legal circles that the first conference on the subject did not occur until Spring, 2016.<sup>104</sup> The earliest substantive reference in the legal literature was in 1994,<sup>105</sup> which did not appear to have a large impact. Statutory interpretation has received the most attention, though, even there, that attention is recent<sup>106</sup> and has since received increasing attention,<sup>107</sup> including in the Utah Supreme Court's interpretation of a state statute.<sup>108</sup>

*State v. Rasabout* involved prosecution under a state statute that stated: "A person may not discharge any kind of dangerous weapon or firearm . . . from an automobile or other vehicle."<sup>109</sup> The majority, using the traditional tools of statutory interpretation, quickly

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<sup>102</sup> See, e.g., James R. Hietala, Jr., *Linguistic Key Words in E-Discovery*, 37 AM. J. TRIAL ADVOC. 603 (2014); D. Carolina Núñez, *War of the Words: Aliens, Immigrants, Citizens, and the Language of Exclusion*, 2013 BYU L. REV. 1517; James C. Phillips et al., *Corpus Linguistics & Original Public Meaning: A New Tool to Make Originalism More Empirical*, 126 YALE L.J.F. 21 (2016), <http://www.yalelawjournal.org/forum/corpus-linguistics-original-public-meaning> (proposing the use of corpus linguistics to determine original public meaning); Lawrence M. Solan, *Can Corpus Linguistics Help Make Originalism Scientific?*, 126 YALE L.J.F. 57 (2016), <http://www.yalelawjournal.org/forum/can-corpus-linguistics-help-make-originalism-scientific>.

<sup>103</sup> See Nathan Kozuskanich, *Originalism, History, and the Second Amendment: What Did Bearing Arms Really Mean to the Founders?*, 10 U. PA. J. CONST. L. 413, 415 (2008); see, e.g., Māmari Stephens, *A Loving Excavation: Uncovering the Constitutional Culture of the Māori Demos*, 25 N.Z.U. L. REV. 820 (2015) (using corpus linguistics in connection with New Zealand's constitution); Daniel Taylor Young, Note, *How Do You Measure a Constitutional Moment?: Using Algorithmic Topic Modeling to Evaluate Bruce Ackerman's Theory of Constitutional Change*, 122 YALE L.J. 1990 (2013).

<sup>104</sup> On April 29, 2016, the Georgetown Center for the Constitution and the J. Reuben Clark Law School at Brigham Young University hosted the *Law and Corpus Linguistics Conference*.

<sup>105</sup> See Malcolm Coulthard, *On the Use of Corpora in the Analysis of Forensic Tests*, 1 FORENSIC LINGUISTICS 27 (1994); see also Clark D. Cunningham & Charles J. Fillmore, *Using Common Sense: A Linguistic Perspective on Judicial Interpretations of "Use a Firearm,"* 73 WASH. U. L.Q. 1159, 1160 (1995).

<sup>106</sup> See, e.g., Cunningham & Fillmore, *supra* note 105; Solan, *New Textualists*, *supra* note 101.

<sup>107</sup> See Mouritsen, *Hard Cases*, *supra* note 98, at 156; see, e.g., Stephen C. Mouritsen, Note, *The Dictionary Is Not a Fortress: Definitional Fallacies and a Corpus-Based Approach to Plain Meaning*, 2010 BYU L. REV. 1915 [hereinafter *Fortress*].

<sup>108</sup> See *State v. Rasabout*, 356 P.3d 1258, 1262-64 (Utah 2015); see also *In re Adoption of Baby E.Z.*, 266 P.3d 702, 715, 723-29 (Utah 2011) (Lee, J., concurrence) (using corpus linguistics to support an interpretation of a statute).

<sup>109</sup> *Rasabout*, 356 P.3d at 1261.

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concluded that the statute counted each shot fired by the defendant as a separate offense.<sup>110</sup> The majority's key move was to interpret "discharge" as referring to each shot from a firearm.<sup>111</sup>

In concurrence, Justice Lee employed corpus linguistics to ascertain the conventional meaning of "discharge."<sup>112</sup> (The majority rejected Justice Lee's use of corpus linguistics for multiple reasons,<sup>113</sup> and Justice Lee defended his use of the technique.<sup>114</sup>) After explaining what corpus linguistics is,<sup>115</sup> Justice Lee searched two corpora — *Google News* and the *Corpus of Contemporary American Usage* — for usages of "discharge."<sup>116</sup> He found that:

*discharge* of a weapon is used overwhelmingly in the single shot sense. Of eighty-one hits, (forty-four that were conclusive and relevant) only one seems consistent with Rasabout's notion of a burst of bullets . . . . Thus, almost every conclusive instance of discharge of a weapon involves a single shot. This provides strong confirmation of the basis of our holding in this case. And it does so on the basis of a transparent database that is publicly available, created by linguists, and subject to replication by anyone seeking to confirm (or reject) my analysis.<sup>117</sup>

This Article is the first evaluation of the application of corpus linguistics to the Constitution generally, and originalism in particular. Application of corpus linguistics to originalism is different because of the unique subject — the Constitution — the sophisticated theory into which I am nesting CART — originalism — and the continuing technical limits on searching older, primary source documents.

### C. *Computer-Assisted Research Techniques Applied to Originalism*

#### 1. Computer-Assisted Research Techniques Introduced

Computer-assisted research techniques are the tools of historical inquiry created and enhanced by computers. The primary example is

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<sup>110</sup> See *id.* at 1262-64.

<sup>111</sup> See *id.* at 1263-64.

<sup>112</sup> See *id.* at 1271-90 (Lee, J., concurring).

<sup>113</sup> See *id.* at 1266 (majority opinion).

<sup>114</sup> See *id.* at 1283-90 (Lee, J., concurring).

<sup>115</sup> See *id.* at 1275-77.

<sup>116</sup> See *id.* at 1277-82.

<sup>117</sup> *Id.* at 1282.

computer-searchable electronic copies of primary source historical documents. (A reminder that the grouping of primary source historical documents is called a corpus.) For instance, James Madison's *Notes of Debates in the Federal Convention* are now stored in electronic, search-enabled, format on many websites.<sup>118</sup> These electronic, primary source materials are widely available and easily accessible.

An originalist seeking to identify whether there was a language convention associated with a term (or phrase), and what that convention was, will utilize the search function to examine electronic primary source documents. (I discuss the collection of documents shortly.) The originalist will identify and catalogue uses of the term uncovered by CART, and then, from the text's immediate context, ascertain the language convention (if any) employed.<sup>119</sup> For reasons of peer review, which I discuss below, CART scholars should publish and retain their records so they can recount their methodology and results to other scholars.

Computer-assisted research techniques have the capacity to identify original language conventions. Through the same process, CART can also identify when original conventional meaning is underdetermined. This occurs when CART analysis shows that there was no original language convention, or that the word's conventional use was vague or ambiguous, among other situations. In these circumstances, constitutional construction occurs.<sup>120</sup> One can think of CART as helping originalists delineate *both* the determinate conventional meaning and the underdeterminate facets of a word or phrase.

As CART increases in use and the technology to support it matures, additional functionalities will make CART even more easy and accurate. For example, collocation is a function that enables searchers

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<sup>118</sup> Two of the most valuable free locations on the web are hosted by the Constitution Society, see *The Debates in the Federal Convention of 1787*, CONST. SOC'Y, [http://constitution.org/dfc/dfc\\_0000.htm](http://constitution.org/dfc/dfc_0000.htm) (last visited July 23, 2015), and Yale Law School, see *Notes on the Debates in the Federal Convention*, YALE L. SCH. [http://avalon.law.yale.edu/subject\\_menus/debcont.asp](http://avalon.law.yale.edu/subject_menus/debcont.asp) (last visited July 23, 2015); see also *Primary Documents in American History*, LIBR. CONGRESS (Apr. 1, 2016), <http://www.loc.gov/rr/program/bib/ourdocs/Constitution.html> (last visited July 23, 2015). There are also subscription sites available including ACCESSIBLE ARCHIVES, <http://www.accessible-archives.com> (last visited Oct. 22, 2015), and READEX, <http://www.readex.com> (last visited Oct. 22, 2015).

<sup>119</sup> See Mouritsen, *Fortress*, *supra* note 107, at 1956-66 (describing the process of employing corpus linguistics).

<sup>120</sup> After an originalist has identified a text's original conventional meaning using CART, and then identified the text's semantic meaning, the third step in originalist analysis is to perform contextual enrichment. Contextual enrichment may clarify a vague or ambiguous meaning.

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to identify the words most commonly associated with the searched-for term.<sup>121</sup> This function helps identify synonyms.<sup>122</sup> Collocation will help scholars check the work they performed independently or provide first-cut results of possible conventional meanings of a term. Currently, collocation is unavailable for originalist CART because of the limitations on available databases.

The number of search returns a scholar receives depends on a number of factors including the search term's ubiquity and the corpus's size. To ensure the manageability of the research, if the search returns are too large to manage effectively, the scholar may randomly sample the results to achieve a fair representation of what the larger body of results contains.

In addition to the term or phrase under investigation, a scholar using CART must uncover and be aware of the variance of spelling and punctuation which could otherwise unnecessarily narrow a scholar's results. Part of the variance is from the different spelling conventions (or lack of convention) at the time period being researched. For example, some words and phrases in the Constitution received varied spellings at the time, such as "ex post facto," which occasionally appeared as "expost facto."<sup>123</sup> Some of the variance is also from the suboptimal digitization of primary source documents. A frequent example of this is the transformation of "s" into "f."<sup>124</sup>

One last note before proceeding. Though my explanation of originalism's architecture and CART's application within it may appear complicated, in practice, scholars and judges using it will find its use intuitive. Everyone works with language conventions — every day. Originalism simply directs judges and scholars to uncover those same conventions in primary source materials (as a first step in originalist interpretation) using computers. As Justice Lee argued in his recent *Rasabout* concurrence:

The fancy Latin name [for corpus linguistics] makes this enterprise seem esoteric and daunting. It is not. We all engage in it even if we don't attach the technical label to it. A corpus is a body, and corpus linguistics analysis is no more than a study of language employing a body of language. When we

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<sup>121</sup> See *Overview*, COLLOCATES DATA, <http://www.collocates.info/comparison.asp> (last visited Aug. 30, 2015) (describing collocation).

<sup>122</sup> Mouritsen, *Fortress*, *supra* note 107, at 1962.

<sup>123</sup> See *Respublica v. Chapman*, 1 U.S. (1 Dall.) 53, 54 (Pa. 1781) (employing this usage).

<sup>124</sup> See, e.g., 1 WILLIAM BLACKSTONE, COMMENTARIES \*3 (using "f" in place of "s" in many currently available editions).

communicate using words we naturally access a large corpus — the body of language we have been exposed to during our lifetimes — to decode the groups of letters or sounds we encounter. . . . We all do that repeatedly every day.<sup>125</sup>

## 2. A “Stable” of Language Conventions

Computer-assisted research techniques had to await the creation of computers and the accumulation of a sufficient number of primary source documents in electronic format that were accessible. The Constitution Society, for example, created its website in 1995, and began populating it with electronic versions of primary source materials.<sup>126</sup> However, even though the raw materials of CART have been in place for almost twenty years, scholars have been slow to fully utilize them, and no one has systemically studied their potential in the context of constitutional interpretation.

As a practical matter, most of the time, a scholar will utilize CART with an already-existing “stable” of possible language conventions that the scholar will test for best fit with the usages identified by CART. The scholar may gather this stable of possible language conventions from the Supreme Court’s case law. For example, regarding the word “Recess” in the Recess Appointments Clause,<sup>127</sup> one candidate convention drawn from *N.L.R.B. v. Noel Canning*, is that recess means only intersession recesses, and another is that it also includes intrasession recesses.<sup>128</sup> Additionally, the scholar may collect a stable of conventions from scholarship in the area.<sup>129</sup> Third, the scholar may create a stable of conventions based on an initial review of the primary and secondary sources.

Let me say more about this third way of creating a stable, because it may become the dominant method as CART matures. A scholar may create a stable of potential language conventions for CART by

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<sup>125</sup> *State v. Rasabout*, 356 P.3d 1258, 1275-76 (Utah 2015) (Lee, J., concurring).

<sup>126</sup> See *Bio on Jon Roland*, CONST. SOC’Y, [http://www.constitution.org/bio/jr\\_bio1.htm](http://www.constitution.org/bio/jr_bio1.htm) (last visited July 23, 2015).

<sup>127</sup> U.S. CONST. art. II, § 2, cl. 3.

<sup>128</sup> See *NLRB v. Noel Canning*, 134 S. Ct. 2550, 2556 (2014) (identifying these competing interpretations).

<sup>129</sup> Compare Michael B. Rappaport, *The Original Meaning of the Recess Appointments Clause*, 52 UCLA L. REV. 1487, 1491 (2005) (describing the original meaning of recess as intersession recesses), with Edward A. Hartnett, *Recess Appointments of Article III Judges: Three Constitutional Questions*, 26 CARDOZO L. REV. 377, 424 (2005) (“For these reasons, the recess appointment power is best understood as available during both intersession and intrasession Senate recesses of more than three days.”).

conducting a pilot study of the corpus. Through a survey of the instances in which the studied word or phrase appears, the scholar can create a list of conventions that plausibly fit the studied text. Then, the scholar can use this stable for a full-blown study of the corpus.

A stable of potential conventions serves two key purposes. First, it narrows the universe of potential conventions. Second, a stable of potential meanings limits the potential conventions to those that plausibly fit our legal practice.<sup>130</sup> Our legal practice typically identifies a narrow universe of potential meanings for constitutional texts, and those meanings are typically plausible, because they originate from members of the practice who reasonably attempt to fit the text and other available semantic information. Scholars already appear to be using this approach to originalist research. For example, Professor Kurt Lash's recent research on the Privileges or Immunities Clause utilized a stable of three possible conventions for privileges or immunities: the enumerated rights interpretation, the fundamental rights interpretation, and the equal rights interpretation.<sup>131</sup>

It remains possible, of course, that our practice is so unmoored from the Constitution's original meaning that none of the candidate conventions drawn from the practice will fit the evidence, so scholars and judges must remain open to that possibility. This could be because our practice never included, as one of the plausible conventions, the correct one. Or, it could be the case that, at one time, the candidate conventions included the correct one, but that convention was lost from sight for any of a host of reasons.<sup>132</sup> A scholar remains open to the inadequacy of his stable of conventions by testing whether the uncovered evidence may be better explained by an alternative convention. A scholar can also review the secondary literature on the subject to see if, in light of that scholarship, the uncovered evidence best fits a convention not drawn from contemporary practice.

However, for a number of reasons and for most constitutional provisions, one of the candidate conventions will sufficiently fit the

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<sup>130</sup> See JACK M. BALKIN, *CONSTITUTIONAL REDEMPTION: POLITICAL FAITH IN AN UNJUST WORLD* 179-82 (2011) (describing his analogous concept of "off-the-wall"); see also Lawrence B. Solum, *How NFIB v. Sebelius Affects the Constitutional Gestalt*, 91 WASH. U. L. REV. 1, 2-4 (2013) (articulating the concept of constitutional gestalt).

<sup>131</sup> See KURT T. LASH, *THE FOURTEENTH AMENDMENT AND THE PRIVILEGES AND IMMUNITIES OF AMERICAN CITIZENSHIP* 277-300 (2014) (comparing the rationales for each interpretation of the Privileges and Immunities Clauses).

<sup>132</sup> See, e.g., LASH, *THE LOST HISTORY*, *supra* note 53, at xv (finding that the Ninth Amendment's history was lost because the original label for the Amendment was "the eleventh article of amendment").

data. First, the robust originalist scholarship over the past two decades has reviewed the history behind most important and many other constitutional provisions. This scholarship is usually not univocal, because originalist scholarship has not yet matured sufficiently, but it typically narrows the range of conventions that plausibly fit the historical evidence uncovered in the scholarship. Second, for those areas of constitutional law not subject to rupture, the long-standing meaning employed by the Supreme Court is likely a plausible candidate convention.<sup>133</sup> Third, many nonoriginalist interpretations of the Constitution are expressly offered as changes from what had been the received meaning, which was also the original meaning.<sup>134</sup> This means that nonoriginalist case law and scholarship is self-consciously acting against an identified alternative meaning, which is a plausible candidate convention. Fourth, in those areas of law that are legally or politically contested, judges and scholars identify alternative candidate conventions, and one stock move is to articulate the (purported) original meaning of the Constitution.<sup>135</sup>

Equipped with a stable of potential conventions, the originalist scholar utilizing CART will proceed to inductively infer which, if any, of the conventions is a convention of the data. Inductive inference occurs when one makes a probabilistic generalization about the data, which consists of particular instances under consideration.<sup>136</sup> The searches performed by originalists using CART will include within their search results the text surrounding the searched-for term. This context is important because the scholar will substitute the different potential conventions from the stable of conventions into the text and try to ascertain, from the context, which of the potential conventions best fits the context. Computer-assisted research technologies permit originalist scholars and judges to accurately, quickly, and easily ascertain which generalization — which of the stable of conventions — is most likely to be the text's language convention.

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<sup>133</sup> The Dormant Commerce Clause is a possible example.

<sup>134</sup> See, e.g., *Home Bldg. & Loan Ass'n v. Blaisdell*, 290 U.S. 398, 425-29, 444-48 (1933) (reviewing the historical background of the Contracts Clause before ruling that a Minnesota statute did not violate the Clause because an emergency justified the statute).

<sup>135</sup> A possible example is the Establishment Clause.

<sup>136</sup> See Scott Brewer, *Exemplary Reasoning: Semantics, Pragmatics, and the Rational Force of Legal Argument by Analogy*, 109 HARV. L. REV. 923, 944 (1996).

### 3. Constructing a Corpus for Originalist CART Research

Unlike the more general field of corpus linguistics, there is currently<sup>137</sup> no ready-made corpus for originalist scholars. Instead, originalists have to construct their own corpora for their research. The documents upon which originalists should practice CART is determined by the starting point of original meaning originalism: the text's original conventional meaning. Documents that best exemplify contemporary conventional usage are: (1) those authored by people adept with conventional usage; and (2) those documents directed to a broad audience. The private letters of educated public leaders from the time period, though nonpublic, were likely to utilize conventional usage because the author was trained in conventional language.<sup>138</sup> The sermons of ministers to their congregations were likely to utilize conventional usage, because the minister wished to communicate with his congregation.<sup>139</sup> (I further discuss corpus construction in Section F, below.)

There is no hard-and-fast rule about how *many* sources a CART scholar should utilize. Ultimately, a sufficiently large and widely available corpus of the relevant documents, like the existing corpora for contemporary English,<sup>140</sup> will be built, and this issue will fade from the scene. In the meantime, a practice will build up where CART scholars learn how many documents are sufficient to establish the existence of a convention (or lack thereof). A rule of thumb for CART scholars is to use documents from both contemporary authorities of conventional English and documents with a wide circulation, and to search them until the point when new searches confirm the results of prior searches. For instance, if one is looking for the conventional meaning of "religion" in the First Amendment, one would perform searches until the same convention, conventions, or lack of convention keeps recurring.

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<sup>137</sup> Below, I describe the soon-to-come-online corpus hosted by Brigham Young University that will greatly facilitate originalist CART research.

<sup>138</sup> I have in mind, for instance, George Washington's private correspondence.

<sup>139</sup> An example is the sermons preached by Congregationalist ministers to the Massachusetts General Court at the beginning of each legislative term. See Mark A. Noll, *The Election Sermon: Situating Religion and the Constitution in the Eighteenth Century*, 59 DEPAUL L. REV. 1223, 1225 (2010) ("[F]or almost every one of the next 250 years, Massachusetts legislators designated a minister to deliver a sermon when they convened to organize for the new political year. Beginning in 1661, these sermons were regularly published.").

<sup>140</sup> See Mark Davies, *Corpora*, BYU, <http://corpus.byu.edu/> (last visited Oct. 20, 2015) (providing access to billions of words in contemporary English documents).

Computer-assisted research techniques do not give “weight” to particular documents or particular usages of a word (with two caveats I explain shortly). The usage of a word in one document is not entitled to x-times the weight of a usage in another document. So long as a document and a usage is within the relevant geographic, linguistic, and chronological timeframes, they are relevant evidence of a convention. As a result, word usage in James Madison’s *Notes* is not more (or less) evidence of a language convention.<sup>141</sup>

The first caveat is for terms of art, discussed in Part III.C, below. To ascertain a term of art’s conventional meaning within the relevant linguistic practice, a scholar must utilize documents and usages from that practice. To this extent, those documents and uses have greater weight than others. For instance, one would privilege international law sources to ascertain the conventional meaning of “Letters of Marque and Reprisal.”

The second caveat is that, as I described above in Part I.C, contextual enrichment is an analytically distinct step in originalist interpretation. Contextual enrichment requires the weighting of some documents and uses over others. For example, one would privilege the Framers’ purpose of creating the Contracts Clause over other Americans’ purposes.

The challenges presented to originalist CART research by having to construct accurate corpora soon will be lessened by the creation of a robust searchable corpus that contains Founding era documents. The site, [corpus.byu.edu](http://corpus.byu.edu), hosted by Brigham Young University and created by Professor Mark Davies, is currently creating a Corpus of Founding Era American English.<sup>142</sup> This corpus will initially include primary source documents from 1760 to 1799 that contain 50 million words (with an ultimate goal of 100 million words). This corpus’ breadth is such that it will capture a broad and deep cross-section of Founding era language usage.

Furthermore, the Corpus of Founding Era American English will have many ways to evaluate the corpus’ data to quickly and accurately uncover original language conventions. These include, for instance, collocation, noted earlier.<sup>143</sup> Furthermore, this corpus will provide

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<sup>141</sup> Though, I as I noted earlier, one should employ a broad cross section of documents, including documents by authors adept at usage of contemporary English. James Madison’s writings are paradigmatic examples of such documents.

<sup>142</sup> See *Current Projects*, BYU, <http://lawcorpus.byu.edu/> (last visited Sep. 23, 2016) (announcing the formation of The Corpus of Founding Era American English (COFEA)).

<sup>143</sup> See *Overview*, *supra* note 121.

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fine-grained analyses including variation over time, geographic variation, and perhaps sociological variation.<sup>144</sup>

D. *Computer-Assisted Research Techniques Promise to Increase Originalism's Methodological Rigor*

Originalism's adoption of CART promises to increase originalism's methodological rigor. It does so through the introduction of testable and reproducible conclusions. This improvement in originalism's method will respond to one of the main criticisms lodged against it. This increase in rigor, however, comes with trade-offs, which I describe at the end of this Section.

Computer-assisted research techniques have the capacity to move substantive originalist scholars and scholarship toward a robust culture of empirical research. It does so through at least four mechanisms. First, CART is focused on and employs quantifiable entities. Computer-assisted research techniques aim to uncover whether a language convention existed. It does so by identifying how many language usages of different types occurred in a data set. Then, CART determines whether one usage constituted a convention of the data set. These are primarily empirical tasks. Originalism's adoption of CART will pivot originalism away from the discipline of history and toward the empirical sciences. Instead of unraveling the "political stories that explain how the Constitution was framed, interpreted, and amended,"<sup>145</sup> CART will focus originalism on readily quantifiable language conventions and the data supporting them.

Second, CART reduces source bias in originalist research. Previously and, to a lesser degree, today, originalist research would investigate the original intent or meaning of a relatively small universe of sources. Originalists would search the indices of *The Federalist Papers* and James Madison's *Notes of Debates in the Federal Convention*, for instance. The smallness of the universe of originalist sources, coupled with the narrowness of the sources' socio-economic background, made originalism susceptible to claims of distorted results caused by biased sources. By contrast, a properly constructed corpus for CART research includes these sources, and also includes a broad capture of primary source documents less limited by socio-economic factors. Looking at just one axis, an adequate corpus will include documents from a range

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<sup>144</sup> See, e.g., *Using the Data*, BYU, <http://www.collocates.info/comparison.asp> (last visited Aug. 30, 2015) (describing how collocations can be used).

<sup>145</sup> Jack Rakove, *Tone Deaf to the Past: More Qualms About Public Meaning Originalism*, 84 *FORDHAM L. REV.* 969, 970 (2015).

of economic backgrounds, such as diaries and private letters from wealthy and not-so-wealthy contemporaries.

Third, the outcomes of CART are subject to testing, and replication or falsification, by other scholars. Computer-assisted research techniques help make originalist scholarship subject to more rigorous peer review, ultimately improving the accuracy of this large and growing body of scholarship. Scholars who utilize CART will identify the corpus they employed, their analysis, and their results from that corpus for the term or phrase for which they were analyzing. This will provide other scholars with sufficient information to critique the scholar's methodology and/or the results. Especially as scholars begin to use CART more frequently, a practice will develop within which scholars will check each other's and judges' CART analyses. Though CART is in its infancy, its use to check originalist claims has already occurred. For instance, historian Nathan Kozuskanich challenged originalist claims regarding the meaning of "bear arms" in the Second Amendment.<sup>146</sup> Professor Kozuskanich used CART to evaluate the use of that phrase in American newspapers in the mid- to late-eighteenth century.<sup>147</sup>

Fourth, CART can create a mutually reinforcing culture of scholarship dedicated to CART's use and refinement. As scholars continue to use CART, they will improve its use and create a community of scholars with rigorous professional standards. A common critique of legal scholarship, including by professional historians, is that it is "results oriented." Legal scholars, the critics claim, do history with the end of finding usable answers to current legal questions, and this motivation, the critics argue, distorts the history-recovery process. The culture of scholarship CART opens is less subject to this critique because the culture will embody the norms of corpus linguistics.

Achieving a reflective scholarly culture is the appropriate goal; however, it is a long-term project that is likely to occur in stages. Computer-assisted research techniques are currently in their initial development. Though there is some scholarship and some judicial usage of corpus linguistics, it is still new and rare.

The creation of a robust scholarly culture surrounding CART is a long-term project for a number of reasons. First, there is currently an insufficient number of scholars and judges engaged in CART to create the culture. For instance, the first conference on the use of corpus

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<sup>146</sup> See Kozuskanich, *supra* note 103, at 413.

<sup>147</sup> See *id.* at 415-16.

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linguistics in law and constitutional interpretation was held in Spring, 2016. Prior to this, scholars engaged in CART operated individually and connected informally. Second, existing legal scholars and judges have insufficient training to perform CART with the effectiveness with which it is possible. To my knowledge, only one law school offers a course in law and corpus linguistics<sup>148</sup> and no training programs are offered for judges and scholars in the subject. Third, once scholars and judges begin to utilize CART adeptly, it will take time for them to congeal into a culture that has its own standards and polices itself for adherence to its standards. Scholarly communities are not built in a day. It takes time for a sufficient quantity of scholars to work in an area and then, over time, identify best practices, and only then may the community police those standards.

Computer-assisted research techniques are themselves likely to quickly mature. There are strong incentives for scholars and judges to utilize CART effectively. For originalist scholars, CART's promise to limit a class of criticisms and transform originalism into a more rigorous approach is attractive. For judges, CART's promise of more accurate constitutional interpretations will help them be more confident that their decisions affecting life, liberty, and property, are correct.

This long-term approach to the creation of a scholarly community around CART has real costs. Prior to the realization of a scholarly CART culture, scholars will proffer and judges will rule based upon constitutional interpretations that have not been facilitated by CART. To the extent the Inaccuracy Critique is itself accurate, those interpretations are more likely to be wrong.

Even as CART is in its infancy, however, there are ways to utilize CART and gain some of its benefits and offset the long-term strategy's costs. Computer-assisted research techniques could operate on two tracks. Scholars and, especially, judges, can utilize the first track while the culture of scholarship matures. This first track will include simple coding of the data from relatively modest corpora and provide usable — but openly tentative — conclusions. This is already occurring. For example, Justice Lee stated in his *Rasabout* opinion that:

I concede that the COCA database is less familiar, and may seem daunting. But my use of it . . . is quite rudimentary. I am simply using it as an online database or search engine to find

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<sup>148</sup> See *Course Description for Law and Corpus Linguistics*, in BRIGHAM YOUNG UNIVERSITY J. REUBEN CLARK LAW SCHOOL COURSE DESCRIPTIONS 2016–17, at 48 (2016), [http://www.law.byu.edu/Curriculum2/Course\\_Descriptions.pdf](http://www.law.byu.edu/Curriculum2/Course_Descriptions.pdf).

examples of language . . . . Admittedly a linguist would get more out of COCA than I can. But the mere fact that someone with greater training and expertise can use a tool in a way that lay people cannot does not deny the lay person of the ability to use it.<sup>149</sup>

The second track will be taken up in earnest by scholars and, later, judges. It will utilize more sophisticated coding of more robust data sets, and offer more reliable conclusions. Second-track scholarship will publicize its methods and analysis to open it to evaluation by other CART scholars. The second track will require the training of both scholars and judges in the techniques of corpus linguistics. It will require better corpora than are currently available. Most importantly, it will include a community of CART scholars that will check each other's and judges' CART analyses and conclusions. Most of the weight of CART's long-term success is, therefore, squarely on scholars' shoulders. This is a long-term project, but one that has been repeated in the legal academy on multiple occasions. The law and economics movement is the most successful example. It created a robust scholarly culture of peer review and trained judges in its methods, for years.<sup>150</sup>

Originalist scholarship is still in its early stages of development, both because of the recent conceptual change to original meaning and because of the emerging movement toward CART. At this point, there is originalist scholarship on many facets of the Constitution, but beyond a few areas, such as the Second Amendment, it has not been subject to scholarly criticism by original meaning scholars, and very little of it has been subject to CART analysis. At this early stage of originalist scholarship, one should expect some instability as the first scholarship on point is subject to criticism that pushes against the initial scholarship's claims.

As originalist scholarship matures, the range of reasonable debate will narrow. This will occur as consensus builds around both what clearly is the text's original meaning and what clearly is not its meaning. For some parts of the Constitution, this may be as far as originalist scholarship will mature.

For other parts of the Constitution, originalist scholarship will reach its final period of maturity when the scholarship has converged on an

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<sup>149</sup> *State v. Rasabout*, 356 P.3d 1258, 1286 n.38 (Utah 2015) (Lee, J., concurring).

<sup>150</sup> See, e.g., Marsha Ferziger Nagorsky, *Law and Economics 2.0*, U. CHI. L. SCH. REC. (Fall 2011), <http://www.law.uchicago.edu/alumni/magazine/fall11/lawandecon2-0> (describing the history of law and economics at the University of Chicago, the founding of an Institute for Law and Economics, and the Institute's many activities, including judicial education).

original meaning. However, without CART, it is unlikely that much originalist scholarship will be able to reach maturity because its method would not be amenable to replication. Computer-assisted research techniques, by contrast, hold the promise of providing an empirically reproducible method.

#### E. An Example of CART in Action

A scholarly exchange in the late-1990s and early-2000s illustrates how CART can enhance originalism's methodological rigor and provide additional, powerful, and accessible evidence of the Constitution's original meaning. This exchange was prompted by the Supreme Court's revitalization of judicially enforceable limits on Congress' Commerce Clause power in *United States v. Lopez*.<sup>151</sup> Justice Thomas, in concurrence, argued for a return to the Clause's original meaning.<sup>152</sup> In 1999, Professors Robert Pushaw and Grant Nelson argued that the original meaning of commerce was broader than Justice Thomas had claimed.<sup>153</sup> In response, Professor Randy Barnett argued that Justice Thomas' interpretation of commerce was correct.<sup>154</sup> Professor Barnett utilized the traditional sources of originalist inquiry — constitutional text, dictionaries, the Philadelphia Convention, *The Federalist Papers*, and the state ratification conventions — to arrive at his conclusion.<sup>155</sup> Professor Pushaw and Nelson responded to Professor Barnett.<sup>156</sup>

To respond and to bolster his earlier case for the original meaning of commerce, Professor Barnett utilized CART.<sup>157</sup> His electronically searchable source was the *Pennsylvania Gazette*, which was widely-circulated and is today best remembered as Ben Franklin's

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<sup>151</sup> See *United States v. Lopez*, 514 U.S. 549, 566 (1995).

<sup>152</sup> See *id.* at 585 (Thomas, J., concurring).

<sup>153</sup> See Grant S. Nelson & Robert J. Pushaw, Jr., *Rethinking the Commerce Clause: Applying First Principles to Uphold Federal Commercial Regulations but Preserve State Control over Social Issues*, 85 IOWA L. REV. 1, 6 (1999).

<sup>154</sup> See Barnett, *The Original Meaning*, *supra* note 60, at 111-24.

<sup>155</sup> See *id.* Professor Barnett did not expressly state what his technique was to uncover instances of the word commerce in this article, but in his later article, he expressly stated that he utilized CART in this, the earlier, article. Barnett, *New Evidence*, *supra* note 10, at 856 n.30.

<sup>156</sup> See Robert J. Pushaw, Jr. & Grant S. Nelson, *A Critique of the Narrow Interpretation of the Commerce Clause*, 96 NW. U. L. REV. 695, 696-97 (2002).

<sup>157</sup> See Barnett, *New Evidence*, *supra* note 10, at 856 n.32. It was Professor Barnett's article that prompted this Article on CART.

newspaper.<sup>158</sup> Professor Barnett searched for uses of the word “commerce” in the *Gazette* from 1728-1800.<sup>159</sup>

He found that the word appeared 1594 times and that, in all but thirty-one instances, there was a consistent — conventional — use of the word.<sup>160</sup> This conventional meaning was “trade or exchange,” as Professor Barnett had previously argued, following Justice Thomas.<sup>161</sup> Professor Barnett found this conventional meaning from the stable of possible conventions he had identified from case law and scholarship.<sup>162</sup> He also identified a handful of possible idiosyncratic usages that were possibly broader.<sup>163</sup> This makes sense because, as a natural language employed by humans, the term commerce is likely to be used unconventionally on occasion.

Professor Barnett’s use of computer assistance made it possible to show, with a high degree of confidence, that there was an original meaning of — a convention for — “commerce.” “[T]his survey clearly establishes that . . . the normal, conventional, and commonplace public meaning of commerce . . . was ‘trade and exchange,’ as well as transportation for this purpose. On the strength of this data . . . I no longer believe that the term ‘commerce’ was even ambiguous . . . .”<sup>164</sup> Barnett’s utilization of computer-assisted research techniques bolstered his claim that the meaning he identified was grounded on the term’s conventional use.

Professor Barnett employed the *Pennsylvania Gazette* for his CART research. Though it was a single source, it circulated throughout the American colonies<sup>165</sup> and abroad<sup>166</sup> and, to achieve its wide circulation, it used conventional English. Furthermore, Professor

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<sup>158</sup> See *id.* at 856-57; see also *The Pennsylvania Gazette*, ACCESSIBLE ARCHIVES, <http://www.accessible-archives.com/collections/the-pennsylvania-gazette/> (last visited July 23, 2015). See generally RALPH FRASCA, BENJAMIN FRANKLIN’S PRINTING NETWORK: DISSEMINATING VIRTUE IN EARLY AMERICA (2006) (describing the wide network of printers that Franklin established).

<sup>159</sup> Barnett, *New Evidence*, *supra* note 10, 856-57.

<sup>160</sup> See *id.* at 857, 859.

<sup>161</sup> See *id.* at 858.

<sup>162</sup> See *id.* at 857.

<sup>163</sup> See *id.* at 859-60.

<sup>164</sup> *Id.* at 862.

<sup>165</sup> See FRASCA, *supra* note 158, at 72 (describing how Franklin established a newspaper in South Carolina, the *South-Carolina Gazette*, which utilized material from the *Pennsylvania Gazette*, among other sources).

<sup>166</sup> See *id.* at 91 (describing how Franklin’s *Pennsylvania Gazette* re-published material from the *Antigua Gazette*, which Franklin had established in the British West Indies).

Barnett's CART research fits the results of the research he had performed in prior work using other documents. This provided confidence that Professor Barnett's CART research was accurate.

My discussions with originalists and other scholars engaged in primary source research into the Constitution's text's original meaning indicates that many such scholars are already informally using CART. This Article facilitates their use by describing, justifying, and advertising it.

*F. This Article Is Focused on One — Important — Facet of Originalist Interpretation: Identifying the Text's Original Conventional Meaning*

This Article is narrow in a number of ways. It addresses only one, though important, part of originalist interpretation: identification of the constitutional text's original conventional meaning. Whether, and to what extent CART facilitates contextual enrichment is beyond the scope of this Article. This Article does not address how a text's publicly available context — the words surrounding it, the text's placement in the Constitution, debates on the text at Philadelphia and the ratification conventions, *etc.* — impacts the conventional meaning. This Article, therefore, puts to one side a standard and ongoing criticism of originalism, which is that originalism does not properly account for the broader intellectual history surrounding the Framing and Ratification of the Constitution.<sup>167</sup>

My tentative view is that CART *will* assist originalists with contextual enrichment. To take a simple example, a scholar may employ CART to identify documents and historical episodes where the term and related concepts were discussed, and from review of those discussions, uncover the text's purpose.

This Article also does not address other uses to which history may be put within originalism.<sup>168</sup>

*G. Potential Objections to Use of CART (to Facilitate Originalism) Fail*

One might argue that CART will not uncover the original conventional meaning of the Constitution's text's word and phrases because there was no national conventional meaning of such texts or phrases. This could occur, a critic might suggest, for many reasons.

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<sup>167</sup> See Cornell, *Originalism on Trial*, *supra* note 15, at 639-40; Griffin, *supra* note 89, at 1214; Rakove, *Joe the Ploughman*, *supra* note 15, at 580.

<sup>168</sup> See, e.g., Jack M. Balkin, *The New Originalism and the Uses of History*, 82 *FORDHAM L. REV.* 641, 656 (2013) (arguing that "nonadoption" history has significantly impacted constitutional interpretation).

First, as historian Saul Cornell argued, “[a]lthough English speakers in America in 1788 may have been part of the same linguistic community, they were not all members of the same speech community.”<sup>169</sup> Even though most Americans during the Framing and Ratification period utilized the same *words*, they did so in their different sub-communities with distinct *meanings*. For example, the criticism goes, a sophisticated merchant in Boston may have understood “contract” differently from a frontier farmer.<sup>170</sup>

This is not an argument against CART for at least three reasons. First, this objection has not shown that the claimed distinct speech sub-communities utilized different meanings *for the Constitution's text*. It could be the case that speech sub-communities used different meanings for the same words in some facets of their lives — trade, for example — or did so with other members of their speech sub-community. It does not follow, however, that speech sub-community members understood the Constitution's text to mean something different than its national conventional meaning. And, scholars who have advanced the claim that, from the existence of speech sub-communities it necessarily followed that the Constitution's text possessed a meaning different from conventional English, have not provided evidence of this.

Instead, actions by Americans during the Constitution's ratification suggest otherwise. During the ratification period, citizens of the various states elected delegates to their respective state ratification conventions. Those delegates traveled to a location to debate and, ultimately, to authorize the Constitution. The delegates to the state conventions communicated with each other, and communicated about the proposed constitution's meaning. The delegates also communicated with their constituents about the Constitution. Perhaps the delegates “translated” the Constitution's national conventional meaning into the speech sub-community's “dialect,” but that process too would show that the mere existence of speech sub-communities did not establish that the Constitution meant something other than conventional English. Thus, even assuming the existence of speech sub-communities, Americans' participation in the ratification process showed that the Constitution used conventional English, which Americans in those sub-communities understood (either directly or via translation).

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<sup>169</sup> Cornell, *Originalism as Thin Description*, *supra* note 30, at 6.

<sup>170</sup> *Id.* at 7.

Second, even if it was the case, as critics contend, that different speech sub-communities utilized the same word or phrase in different manners, CART has the capacity to identify this phenomenon. Computer-assisted research techniques can identify the existence of distinct speech sub-communities by utilizing appropriate sources. These sources could be publications for which a scholar or judge would have great confidence in its conventional use of words and phrases, or a broad enough net of sources to capture a cross-section of potential sub-communities. These approaches are not mutually exclusive.

An example of the first approach is the *Pennsylvania Gazette*, published in the eighteenth century, and which circulated widely.<sup>171</sup> To reach a wide audience, the *Gazette* utilized language conventionally, otherwise, its readers would not have understood it and would not have purchased it. Think of the *New York Times* today. It has a circulation approaching two million per day.<sup>172</sup> The *New York Times* is able to communicate — to sell — to Americans despite Americans' deep differences.<sup>173</sup> It does so through use of conventional meanings.

An example of the second approach would take a cross-section of sources that included major speech sub-communities. These cross-sections would be based on geography, class, occupation, race, religion, and ideology, among others. Cross-sections might include newspapers from different regions of the country, both high- and low-brow publications, diaries from black and white Americans, sermons from ministers of different religious traditions, and pamphlets from different political parties.<sup>174</sup>

If different conventions existed for the same word or phrase, CART would identify those different usages. Assuming that, despite a speech sub-community or two, there continued to be a *national* language

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<sup>171</sup> See *The Pennsylvania Gazette*, *supra* note 158. See generally Charles E. Clark & Charles Wetherell, *The Measure of Maturity: The Pennsylvania Gazette, 1728–1765*, 46 WM. & MARY Q. 279 (1989) (providing a review of the *Gazette's* history).

<sup>172</sup> *Average Circulation at the Top 25 U.S. Daily Newspapers*, ALLIANCE FOR AUDITED MEDIA, <http://auditedmedia.com/news/research-and-data/top-25-us-newspapers-for-march-2013/> (last visited Aug. 31, 2015).

<sup>173</sup> See, e.g., Samuel G. Freedman, *Push Within Religions for Gay Marriage Gets Little Attention*, N.Y. TIMES, July 24, 2015, <http://www.nytimes.com/2015/07/25/us/push-within-religions-for-gay-marriage-gets-little-attention.html> (using words, like “religion,” that describe complex phenomena).

<sup>174</sup> See, e.g., *Collections and Coverage*, ACCESSIBLE ARCHIVES, <http://www.accessible-archives.com/collections/> (last visited July 29, 2015) (listing a wide-assortment of searchable sources).

convention for the word or phrase, then originalist analysis would proceed.

Third, if the total number of the speech sub-communities, along with the number of members of those communities, was so large such that it prevented the existence of a national language convention, then originalism would conclude that the text's conventional meaning was underdetermined. This conclusion, however, still shows CART's value because CART would be able to delineate the extent to which the text's original conventional meaning was determinate, and the extent to which it was not. Originalism has a facet that deals with constitutional underdeterminacy called constitutional construction, which I briefly described above.<sup>175</sup>

This first objection is a subset of a broader claim that CART is not practically possible. The arguments supporting this claim could take many forms. Perhaps it is the cultural differences that separate today's researcher from eighteenth century Americans. Originalists today, even equipped with CART, will not be able to penetrate the cultural differences. Or, perhaps it is the more radical claim that the diversity of eighteenth century Americans precluded a conventional meaning. Therefore, CART will only pick up the cacophony of different unconventional uses.

This objection — that CART is not practically possible — is implausible. Late-eighteenth century Americans, for the most part, were literate and shared a common linguistic practice.<sup>176</sup> There are many pieces of evidence supporting this. Americans read many of the same books.<sup>177</sup> The *Bible*, for example, was a staple throughout the nation, not to mention, especially among the more educated, the existence of a common literary and cultural repository. This provided Americans with a common linguistic experience. Further, Americans corresponded with each other, across geographic, class, and religious distances. The only way this could occur would be for the correspondents to utilize conventions. Most relevant for my own

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<sup>175</sup> See *supra* Part I.C.

<sup>176</sup> See LAWRENCE A. CREMIN, *AMERICAN EDUCATION: THE COLONIAL EXPERIENCE 1607–1783*, at 546 (1970) [hereinafter *THE COLONIAL EXPERIENCE*]; Carl F. Kaestle, *The History of Literacy and the History of Readers*, in *PERSPECTIVES ON LITERACY* 95, 109–11 (Eugene R. Kintgen et al. eds., 1988).

<sup>177</sup> See CREMIN, *THE COLONIAL EXPERIENCE*, *supra* note 176, at 483, 500–01, 503–05; LAWRENCE A. CREMIN, *TRADITIONS OF AMERICAN EDUCATION* 38 (1977) (noting that nearly half of colonial Americans read *Common Sense*); see also MARK G. SPENCER, *DAVID HUME AND EIGHTEENTH-CENTURY AMERICA* 12 (2005) (estimating that 45% of personal libraries in colonial America contained John Locke's *An Essay Concerning Human Understanding*).

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argument, many Americans read and discussed newspapers, some with widespread circulation.<sup>178</sup> The only way for newspapers to sell, and the only reason for readers to purchase newspapers, was if communication occurred, and this would have happened via conventional meaning.

Think about application of CART today. A critic could make the same impracticability claim. He could argue that America is a diverse country that is geographically and culturally distant. Americans in California are different from those in West Virginia. Americans who attended Harvard are different from those who attended the University of South Dakota. Americans who are lawyers are different from those who work on the assembly line. However, despite the physical and other “distances” between Americans, American English utilizes conventions. Perhaps the best examples are the major national newspapers, the *New York Times*, *USA Today*, and the *Wall Street Journal*. They have large, national circulations. To achieve this, there are language conventions upon which the newspapers and their readers rely. The same can be said for other mass media outlets on television and radio. It can also be said for the waves of federal law, both statutory and regulatory, gushing from Washington, D.C., covering all parts of the nation.

In sum, there is significant evidence of communication among Americans during the Framing and Ratification period, despite differences among Americans. At the same time, there is little evidence of the inability to communicate among Americans at that time.

A critic could also argue that CART is practically impossible because of the loss and destruction of contemporary primary sources, especially from the period of the Framing and Ratification. There is no doubt that many contemporary sources have been lost. However, so long as the loss does not skew the remaining data, and the remaining data is sufficient to provide confidence of a convention, then the losses do not undermine CART. The amount of primary source material remaining from the Framing and Ratification period is considerable and growing, and new sources are added to electronically searchable databases. They include sources from broad cross sections of contemporary American life and in sufficient quantity to provide confidence that the extant data provides an accurate picture of contemporary language conventions. One gains this confidence through the methods I described earlier: a broad cross-section of

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<sup>178</sup> Cf. CREMIN, *THE COLONIAL EXPERIENCE*, *supra* note 176, at 547-48 (comparing colonial newspaper circulation to the United Kingdom).

sources, and use of sources created by those adept at contemporary language conventions. One also gains this confidence through the use of CART until the research reaches a point where the results of further research repeatedly confirm the results up to that point.

A second and related objection is that CART-facilitated originalism treats non-elite Americans during the Framing and Ratification period as “idiots,” “as if they had no public voice.”<sup>179</sup> The core of this criticism is that public meaning originalism privileges elite understandings over “ordinary” or “common” understandings.<sup>180</sup> As with the sub-communities argument, above, CART can overcome this objection by utilizing enough sources and a broad array of sources to ensure that a purported language convention is truly a convention of the American People.

These two objections share a common assumption: if a purported language convention does not capture all (or almost all) of the speech patterns of late-eighteenth century residents of the United States, it is not a sufficient foundation for constitutional interpretation. That assumption sets the bar too high because a language convention need not account for unconventional speech patterns. To take an easy example, in 1787-1789 America, there were pockets of Americans who did not speak English, sometimes of substantial size, such as the so-called Pennsylvania Dutch.<sup>181</sup> A language convention that does not take into account the speech patterns of a minority of non-English speakers, remains an accurate language convention of American English.<sup>182</sup>

More fundamentally, the assumption misses originalism's point. Originalism is a theory about the U.S. Constitution's meaning. As articulated by originalists, that meaning is founded on the text's conventional meaning. The conventional meaning will include the patterns of speech of most Americans, but not all. The inability of particular individuals or discrete groups of people to directly understand the Constitution's text's meaning in an unmediated way was not an obstacle for such individuals, and the American People, to knowingly ratify the Constitution's conventional public meaning. Their understanding would have been aided by the “division of

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<sup>179</sup> Cornell, *The People's Constitution*, *supra* note 15, at 299.

<sup>180</sup> *See id.*

<sup>181</sup> DONALD B. KRAYBILL, *THE RIDDLE OF AMISH CULTURE* 47 (1989).

<sup>182</sup> *But see* Jack M. Balkin, *The Construction of Original Public Meaning*, 31 *CONST. COMMENT.* 71, 74-79 (2016) (arguing that a mistranslated German translation of the proposed constitution is an example of the no-fact-of-the-world original meaning and that originalists must therefore choose which meaning to utilize).

linguistic labor.”<sup>183</sup> As explained by Professors McGinnis and Rappaport:

[T]he people decided whether to ratify the Constitution based on an explanation of its meaning by those with legal knowledge. . . . Moreover, the people did not vote directly on the Constitution . . . . They instead relied on their representatives — who were more likely to be either schooled in legal understanding or able to consult more learned colleagues.”<sup>184</sup>

Non-English speaking Americans relied on standard-English speaking Americans to “translate” the Constitution’s meaning so they could understand it.

Furthermore, originalism’s goal is to capture *national* conventions because the Constitution was drafted and ratified by the American People.<sup>185</sup> The Constitution is “ordain[ed] and establish[ed]” by the American People,<sup>186</sup> and it was ratified by the American People through state conventions.<sup>187</sup> Therefore, the relevant language conventions were national.<sup>188</sup> After ratification, the Constitution operated upon the American People and, for Americans to understand it and be guided by it, the relevant conventions were national.<sup>189</sup> As

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<sup>183</sup> See Lawrence B. Solum, *Incorporation and Originalist Theory*, 18 J. CONTEMP. LEGAL ISSUES 409, 429-31 (2009); Lawrence B. Solum, *Semantic Originalism* 54-56 (Ill. Pub. L. & Legal Theory Res. Papers Series No. 07-24, 2008), [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1120244](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1120244).

<sup>184</sup> John O. McGinnis & Michael B. Rappaport, *Original Methods Originalism: A New Theory of Interpretation and the Case Against Construction*, 103 NW. U. L. REV. 751, 771 (2009).

<sup>185</sup> See Rakove, *Joe the Ploughman*, *supra* note 15, at 578 (“In a republic in which the adoption of a constitutional text depends directly on the authority of the people, knowing how a text was understood by both ordinary citizens and their elected delegates and legislators matters . . .”).

<sup>186</sup> U.S. CONST. pmb1.

<sup>187</sup> See *M’Culloch v. Maryland*, 17 U.S. (4 Wheat.) 316, 403-04 (1819) (“From these conventions, the constitution derives its whole authority. The government proceeds directly from the people; is ‘ordained and established,’ in the name of the people; and is declared to be ordained, ‘in order to form a more perfect union, establish justice, insure domestic tranquility, and secure the blessings of liberty to themselves and to their posterity.’”).

<sup>188</sup> See MCGINNIS & RAPPAPORT, *supra* note 12, at 82 (arguing that the Ratifiers utilized original methods originalism to understand the Constitution’s public meaning).

<sup>189</sup> See Solum, *Intellectual History*, *supra* note 64, at 1135 (“Some legal texts, like the U.S. Constitution and perhaps some statutes, are directed to the public at large. For texts like this, the author’s communicative intentions must be formulated in terms

summarized by Professor Lawrence Solum: “Public meanings are not necessarily the same as the meanings that exist for particular discursive communities. . . . [I]t would simply be a mistake to identify the public meaning of the constitutional text with the way in which the text related to the questions of a particular discursive community.”<sup>190</sup>

To test the criticism — again, the criticism is that originalism cannot capture the Constitution’s meaning because the original (national) meaning fails to include all (especially non-elite) speech patterns — let us apply it to the modern context of federal statutes. A critic would have to conclude that federal statutes, most<sup>191</sup> of which are drafted, debated, adopted, and signed by the President using conventional American English,<sup>192</sup> cannot possess a conventional American English meaning because many Americans do not speak English or do not speak it conventionally. That position is implausible, as it is implausible applied to the Constitution, because federal statutes are enacted on behalf of, for the benefit of, and to socially-order the American People. All of the actors in the process of drafting, enacting, implementing, and following federal statutes utilize conventional American English — not another language and not unconventional American English.

There is a way in which this second objection — that originalism privileges one meaning over other meanings — is accurate. As applied to oppressed groups, those who lacked access to standard English and to the constitutional authorization process, originalism gives little weight to those groups’ linguistic conventions. However, this form of the objection does not undermine CART. Instead, it is a potential challenge to originalism’s normative attractiveness. It pushes against the claim that the original meaning of the original Constitution had democratic legitimacy. For those conceptions of originalism whose normative foundation is popular sovereignty, this may present a problem.<sup>193</sup> However, it is not an argument that originalism cannot uncover original national language conventions.

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of the meaning the author intends the public to grasp based on public recognition of the author’s communicative intentions. In this situation, the notion of ‘public meaning’ is built into the relevant communicative intentions.”).

<sup>190</sup> *Id.* at 1148.

<sup>191</sup> Some statutes are entirely or almost entirely terms of art, and therefore do not have a public conventional meaning. Statutes governing taxation, for example, have as their primary audiences the IRS, tax lawyers, and accountants.

<sup>192</sup> Keeping in mind the linguistic division of labor for those portions of statutes which are terms of art.

<sup>193</sup> However, popular sovereignty originalists could argue that amendments

A third objection is that CART-facilitated original meaning originalism is “even more prone to abuse and manipulation” because it is less tethered to the Framers or Ratifiers and hence “provides an invitation to cherry-pick quotes and manipulate evidence.”<sup>194</sup> On the contrary, CART make originalism less prone to manipulation because it broadens the data set, reduces human error, and provides results testable by other scholars and judges, which reduce bad faith manipulation. I explain this further, in Part III.B, below.

Many objections to CART appear to be misunderstandings of originalism and its capacities. For instance, one objection is that, for one of a host of reasons, there was no conventional meaning of a word or phrase, when it was ratified. Or, relatedly, another objection is that there was more than one convention regarding a word or phrase. These are possible and even likely to exist regarding at least some parts of the Constitution’s text. Originalism has developed mechanisms to deal with these and similar situations.<sup>195</sup> Computer-assisted research techniques do not change originalism’s ability to do so. Instead, they are a tool that originalists may use to better execute originalism.

Further, originalism is still improved by its use of CART, even in those situations when CART does not identify a language convention for a constitutional text or phrase. In these cases, CART helpfully informed the scholar or judge that there was no convention or there were multiple usages, none of which constituted a convention. That is valuable information which, unless contextual enrichment provided sufficient additional information to eliminate the underdeterminacy, the text or phrase is an instance of constitutional construction.

Some other objections to CART are misplaced objections to other facets of originalist interpretation, not CART itself. For example, Professor Saul Cornell’s argument, related above, that originalism privileges elite understandings over “ordinary” or “common” understandings<sup>196</sup> is an objection to public meaning originalism itself.<sup>197</sup> It is a quarrel with both the internal and external justifications

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rectified this original democracy deficit such that originalism’s democratic pedigree today is adequate.

<sup>194</sup> Cornell, *The People’s Constitution*, *supra* note 15, at 335.

<sup>195</sup> Originalism deals with the first objection through the concept of constitutional construction, which covers underdeterminate original meaning, and it deals with the second through intratextualism and contextual enrichment, which eliminate or reduce semantic vagueness and ambiguity.

<sup>196</sup> See Cornell, *The People’s Constitution*, *supra* note 15, at 299.

<sup>197</sup> See also Rakove, *Joe the Ploughman*, *supra* note 15, at 577-78 (arguing that originalism’s “ambition” to ascertain the Constitution’s “permanent meaning” is in

originalists have provided for originalism. For purposes of this Article, I assume that originalism has good reasons supporting it; my sole task is to show that CART helps originalism achieve its goals.

One last point before moving on. The burden on the judgment of scholars and judges using CART is relatively low. They are not asked to read primary source materials and ascertain, *ex nihilo*, what the language convention was for a word or phrase. Instead, CART gives scholars the much more manageable task of judging which of two or more conventions from a stable of conventions is more likely a (or the) convention of the material. Judgments in these situations will not be perfect but, because they are binary or, at most, involve a handful of choices, they will be easier.<sup>198</sup>

#### H. *Computer-Assisted Research Techniques Fit Well Within Original Meaning Originalism*

Computer-assisted research techniques are ready-made for original meaning originalism because they are adept at ascertaining language conventions. With computer assistance, one can relatively *easily* find — *all* — uses of a word or phrase in a source. From review of the identified uses of the word or phrase, one can identify its conventional meaning.

First, CART research is easier to do than prior original intent research. Previously, scholars engaged in original intent research had to pore over numerous collections of debates,<sup>199</sup> documents,<sup>200</sup> and letters.<sup>201</sup> These scholars would look through indices to find references to terms or phrases, and then compile a physical record of those references. Then, the scholars would have to synthesize the various statements and claims made by the target group, such as the Framers,

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conflict with the historians' perspective that it "enter[s] into the stream of historical time, and [its] meaning changes").

<sup>198</sup> Cf. Kay, *supra* note 13, at 243-44 ("It is true that we can never know the original intentions with certainty, but then we can never know any speaker's or writer's intent with certainty. Nevertheless, it is almost always possible to examine the constitutional text and other evidence of intent associated with it and make a reasonable, good faith judgment about which result is more likely consistent with that intent.").

<sup>199</sup> Examples of such debates include the Philadelphia Convention debates, and state ratification debates, along with debates recorded in newspapers of the time, such as *The Federalist Papers*.

<sup>200</sup> See, e.g., THE DOCUMENTARY HISTORY OF THE RATIFICATION OF THE CONSTITUTION (Merrill Jensen ed., 1976).

<sup>201</sup> See, e.g., THE PAPERS OF JAMES MADISON (Robert A. Rutland et al. eds., 1983).

into a coherent picture of their originally intended meaning. This was incredibly time consuming and expensive.<sup>202</sup>

By contrast, CART provides a large amount of data easily and inexpensively. Using CART, an original meaning originalism scholar would first access an electronic primary source document.<sup>203</sup> Also, the scholar would quickly identify all uses of the term or phrase in the document. Finally, the scholar would compare his stable of language conventions to the identified uses, to determine which one best fit the uses.

Second, CART helps the scholar find all uses of the term or phrase. Previously, original intent scholars had to rely on indices, which may not have identified the term being investigated by the scholar, or may have been unreliable in their identification. Or the scholar would have had to read through the source — page-by-page — which would have stretched the capacities of the scholar and likely resulted in missed identification of uses. Computer-assisted research techniques nearly eliminate the possibility of human error in the identification of a term or phrase in electronically searchable primary sources.

Original meaning originalism's focus on language conventions means that CART works well within it.

### *I. Computer-Assisted Research Techniques Facilitate Original Meaning Originalism*

The power of CART to (1) construct a sufficiently *large* data set, (2) identify — out of a vast amount of information in a document or documents — only the *relevant* material, and (3) identify the *entire* body of relevant material, rather than some portion of it, makes it possible to practice original meaning originalism in a highly reliable manner. It also facilitates originalists constructing finer-grained analyses of the Constitution's original meaning.

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<sup>202</sup> One had to have access to a library with these documentary resources.

<sup>203</sup> Many of the most important such documents, at least for the Founding period, are freely accessible via the web. See, e.g., CONST. SOC'Y, [http://constitution.org/dfc/dfc\\_0000.htm](http://constitution.org/dfc/dfc_0000.htm) (last visited July 23, 2015); *Documents in Law, History and Diplomacy*, AVALON PROJECT, [http://avalon.law.yale.edu/subject\\_menus/debcont.asp](http://avalon.law.yale.edu/subject_menus/debcont.asp) (last visited July 23, 2015); *Natural Law, Natural Rights, and American Constitutionalism*, WITHERSPOON INST., [http://www.nlnrac.org/archive/topic\\_and\\_subtopic](http://www.nlnrac.org/archive/topic_and_subtopic) (last visited Aug. 28, 2015); *Online Library of Liberty*, LIBERTY FUND, <http://oll.libertyfund.org/> (last visited Aug. 28, 2015); *Primary Documents in American History*, LIBR. CONGRESS, <http://www.loc.gov/rr/program/bib/ourdocs/Constitution.html> (last visited July 23, 2015). Other valuable sources are available for a fee, which many institutions pay.

Originalism's practical success as an interpretive enterprise depends on (among other things) its ability to ascertain language conventions at the various times of constitutional ratification. The greater the size of the "data set" from which originalists ascertain language conventions, the more reliable are the resultant language conventions. A language convention is the standard usage of a term; the greater the number of instances of identified usage, therefore, will lead to greater data upon which to base a more-powerful claim of convention.

Computer-assisted research techniques, today, provide access to large numbers of instances of nearly every term and phrase employed in the Constitution.<sup>204</sup> The location of the language conventions that are originalism's focus is, primarily, written use of those conventions in newspapers, sermons, diaries, debates, correspondence, and wherever else language was used. Furthermore, the traditional documentary sources of original intent, such as Madison's *Notes of the Philadelphia Convention*, also remain a source of evidence of original language conventions. With the truly massive data sets of language conventions available to CART, originalists can make powerful claims to having accurately identified language conventions.

Second, CART identifies only relevant information. This not only increases the ease and efficiency of originalist research, it also increases its accuracy by avoiding the potential for human error that may occur when attempting to identify usages of a text or phrase. More importantly, CART's ability to identify only relevant data leads to more accurate identification of language conventions by reducing false positives. False-positives are terms that are not the relevant text and therefore do not bear on the question of the conventional meaning of the Constitution's text.

Third, computer-assisted research also ensures that historical research uncovers *all* of the uses of a term or phrase in a given primary source. This one-hundred percent "capture" rate provides assurance that the language convention identified by the researcher is the standard usage and that it is not idiosyncratic. Stated differently, it avoids later discoveries of previously unaccounted-for uses that change the convention or that establish that the purported convention was itself idiosyncratic.

Furthermore, this larger data set will enable a researcher to identify finer grains in language conventions. The researcher will be able to identify the most common convention for a term or phrase, and distinguish that convention from clearly idiosyncratic usages.

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<sup>204</sup> See sources cited *supra* Sections II.C.1., 3.

However, CART will also help identify when the conventional meaning of a word or phrase is multi-faceted. In these situations, CART will show the various usages of the word or phrase.

### III. BLUNTING, THOUGH NOT ELIMINATING, THE INACCURACY CRITIQUE

#### A. Introduction

Computer-assisted research techniques blunt the Inaccuracy Critique, though they do not eliminate it. The Inaccuracy Critique is blunted because CART easily provides relatively accurate data upon which to ground the Constitution's original meaning. This data is broader and richer, making this foundation less likely to change, and therefore the original meaning built on top of it is less likely to change. However, the Inaccuracy Critique remains because CART does not work or work well in some interpretative situations. I describe these in Section C.

#### B. Blunting the Inaccuracy Critique

The Inaccuracy Critique is the claim that originalism's historical recovery of constitutional meaning is impossible, or likely to fail, so that the constitutional law (purportedly) based on the Constitution's original meaning will be inaccurate. It will be inaccurate because the historical recovery process undergirding originalism will give different answers over time and to different — even good faith — interpreters. However, originalism's move to original meaning originalism, coupled with CART, blunts the Inaccuracy Critique, because the technique provides broader, richer, and more precise data upon which to reliably ground original meaning.

First, original meaning originalism's focus on language conventions, culled with powerful CART, is adept at uncovering the existence and scope of original language conventions, the core of original meaning originalism. Like language conventions today, language conventions existed during the framing and ratification of constitutional text. Computer-assisted research makes them readily and reliably accessible.

Using CART, original meaning originalism is able to avoid the theoretical "summing of intent" problems that plagued original intent. Instead of subjective intent of multiple individuals, CART looks for regularity of word and phrase usage in a robust documentary record. Original meaning originalism's focus on language conventions,

coupled with CART, provides a solid foundation for original meaning, which blunts the Inaccuracy Critique.

For this reason, Professor Cornell's argument that originalism fails because it "assumed the existence of an interpretative consensus when there was none at the Founding,"<sup>205</sup> is overbroad. Public meaning originalism's foundation is language conventions. Computer-assisted research techniques allow originalist scholars and judges to utilize more data, more accurately, to ascertain whether a convention existed and, if so, what the convention was. *If* such a convention existed, then the existence or lack of an interpretative consensus is irrelevant.

Second, computer-assisted research is a simple tool. Scholars and judges, without significant training, can use it. It is also inexpensive, which supports its widespread use. Computer-assisted techniques are applicable to a broad array of sources, which provide significant accessible data upon which to ground original meaning. Original language conventions are therefore more accessible than original intentions, and that accessibility is magnified by CART.

This simplicity also reduces good faith mistakes. The simplicity and low cost of CART means that many scholars can practice it. In addition to creating accurate results, it also permits various scholars to check each other's — and courts' — work. The large data sets allow each scholar, and other scholars, to confirm their work. Reducing good faith errors blunts the Inaccuracy Critique.

Third, the breadth of available sources, coupled with the high capture rate of computer-assisted research overcomes unreliability — including gaps, idiosyncrasies, and potential contradictions — in the historical record. Since language conventions are linguistic-community-wide phenomena,<sup>206</sup> originalists can apply CART to a broad array of sources, beyond materials narrowly focused on the framings and ratifications of constitutional text. Therefore, even if one source or a set of sources provides little data, provides (it later turns out) unconventional data, or provides contradictory data, CART will identify and compensate for these obstacles. For example, Madison's *Notes* contain gaps that CART will identify and overcome through a wealth of other sources.<sup>207</sup> Similarly, even if then-contemporary

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<sup>205</sup> Cornell, *The People's Constitution*, *supra* note 15, at 296.

<sup>206</sup> In the United States today, and during the Framing and Ratification period, the linguistic community included most people in most geographic areas.

<sup>207</sup> See Hutson, *supra* note 45, at 35 ("Madison's notes are not a forgery, but they are far from a verbatim record of what was said in the Convention. They omit much of what happened in Philadelphia.").

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dictionaries were not accurate representations of language usage, CART will identify this and, because of its broad data, correct it.

More generally, even if many accounts of the Framing and Ratification are unreliable descriptions of events, so long as the accounts *themselves* utilized language conventions — and there is no reason to believe otherwise — then these sources still provide data that originalist CART can effectively employ. For instance, even if Madison's *Notes* mis-described the debate on a clause, so long as Madison employed terms in a conventional manner, then his *Notes* remain a valuable source of data for CART. It is highly likely that Madison did employ conventions because he would wish to communicate with himself, when he later reviewed his notes,<sup>208</sup> and because he wrote his *Notes* for future readers<sup>209</sup> who, to understand, would only understand conventional English. This more-solid foundation for originalist language conventions blunts the Inaccuracy Critique.

Fourth, professional training in history is not necessary for originalist research using CART for two primary reasons. First, as described above, the tools of CART are relatively simple. Being a professional historian does not make one significantly more adept at CART.

Second, the focus of CART is not, as is the case with historians, a contextualized description of an event or events. Historians attempt to describe the background conditions, both natural and human, the actors, their goals and reasons for acting, and the consequences of their actions.<sup>210</sup> That can be a complex, multi-faceted, and (relatively) challenging narrative to (re)construct. Professional training in history develops basic knowledge of the pertinent time periods and skills to ascertain and construct such narratives.

By contrast, CART is the narrowly circumscribed inquiry into original language conventions. One need not know how to craft an historian's narrative to employ CART. One only needs electronically searchable primary sources, a constitutional text or phrase, and a stable of language conventions to test against the data. Therefore, original meaning originalism, coupled with CART, provides relatively

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<sup>208</sup> Unless Madison used a secret code.

<sup>209</sup> See Hutson, *supra* note 45, at 24 (“Although often entreated to publish his notes on the Philadelphia Convention, James Madison never relented in his conviction that they should appear posthumously.”).

<sup>210</sup> See, e.g., Cornell, *Originalism on Trial*, *supra* note 15, at 625-33; Solum, *Intellectual History*, *supra* note 64, at 1159-62.

stable language conventions, without the use of professional historian training, and therefore blunts the Inaccuracy Critique.<sup>211</sup>

The use of CART discussed here, which is the recovery of original language conventions, remains an historical inquiry, because it is focused on conventions from historical periods. However, the inquiry is narrowly circumscribed. It is a “threading of the needle” which, on the one hand, maintains originalism’s connection to the historical Framing and Ratification<sup>212</sup> while, on the other hand, it leverages technology to increase the reliability and ease of originalist research.

Furthermore, the primary value of historical training in the context of CART would be as insurance or as guardrails on the process. Historical training can provide the knowledge and background to check whether CART’s results are plausible or implausible, given the historical context of the time. Scholars engaged in CART can achieve this checking function, however, without historical training. These scholars can leverage professional historical training’s checking capacity by comparing their CART results with the secondary historical literature. The literature will be able to provide parameters of plausibility. It typically will not be able to identify with a fine grain, but it will exclude results that are implausible given the broader historical context.

Fifth, the breadth and high “capture rate” of originalist CART reduces the likelihood of later uncovering new — convention-altering — data. Originalists will apply CART to the standard primary source

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<sup>211</sup> I suspect that differences of training and focus between professional historians and originalist scholars partially explains Professor Cornell’s inability to understand why Professor Solum has explained originalism by using philosophy of language scholar Paul Grice’s ideas. See Festa, *supra* note 15, at 504-06 (suggesting that professional interests explain professional historian criticism of lawyers’ use of history). Professor Cornell stated:

[T]he relevance of Grice’s theory to historical inquiry is less clear. It is easy to see why most historians would not find Grice’s concept of semantic meaning particularly useful for the kinds of questions that most contemporary historians find interesting since these questions typically focus on issues of authorial intent or reader response. In both of these inquiries semantic meaning is less important than empirical evidence about how actual authors and readers understand particular texts.

Cornell, *Heller*, *supra* note 15, at 1100. Public meaning originalism, as I described in this Article, is empirically grounded on original language conventions. This foundational step in originalist interpretation is not after Framer intent or actual Ratifier response.

<sup>212</sup> Originalism also retains its connection to history through contextual enrichment.

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materials from the Framing and Ratification, such as Madison's *Notes* and the *Federalist Papers*, and they will also apply it to other contemporary sources of evidence of language conventions. Computer-assisted research techniques are able to extract all of the convention-related data from those documents, which means that later judges and scholars looking at the same documents are unlikely to discern different information. Therefore, later judges and scholars are unlikely to find a different language convention, and therefore unlikely to alter the original meaning based on different conventions. This surer foundation of the original language conventions blunts the Inaccuracy Critique.

Furthermore, because CART is easy and inexpensive to use, originalists will be able to mine as many documents necessary to achieve a clear picture of the data. Once a scholar has mined a sufficient number of documents, so that new documents' data no longer modify the scholar's findings, the scholar's finding will be worthy of a high degree of confidence. It would be unlikely for a language convention, sufficiently established through CART using appropriate data sets — especially on the key axes of breadth and expertise — to later turn out to be *unconventional* upon the review of another document, or the discovery of a new historical document. Therefore, it is unlikely the original meaning grounded in the identified conventions will be undermined, and the Inaccuracy Critique is therefore blunted.

Sixth, the increased ease-of-use and accuracy provided by originalist CART will make it difficult for judges and scholars to exercise bad faith for any length of time. First, their originalist arguments will be less persuasive if they do not utilize originalist CART. This will apply pressure on them to utilize CART which will, in turn, provide these judges and scholars with results that will be difficult for them to falsify. This is because a scholar or judge who utilizes CART will have to provide adequate information regarding his data set(s), stable of potential conventions, and his analysis, or be subject to criticism, which will make the judge or scholar's analysis open for inspection.

Second, and more importantly, if judges do utilize originalist CART, other judges and scholars will be able to "check" their results and, if necessary, correct them. A judge or scholar who claims to have employed CART to arrive at a language convention (that is then used to construct original meaning), will defend that usage by explaining his data set(s), showing his analysis, and providing either his data or a

summary of that data.<sup>213</sup> Justice Lee did this, for instance.<sup>214</sup> Other scholars or judges will then have the means to utilize CART themselves to review — and then support or criticize — the judge's or scholar's analysis. The ongoing possibility of critical review will *ex ante* limit bad faith originalist interpretations, and thereby blunt the Inaccuracy Critique.

In sum, original meaning originalism, complimented by CART, blunts the Inaccuracy Critique's force by providing easy access to reliable information on original language conventions.

*C. Blunting — Though Not Eliminating — the Inaccuracy Critique*

Computer-assisted research techniques will blunt, but not eliminate the Inaccuracy Critique. The Inaccuracy Critique retains its force<sup>215</sup> in at least four situations: (1) the facets of the originalist interpretative process to which CART is inapplicable; (2) when CART's necessary conditions do not occur; (3) human error utilizing CART; and (4) the word or phrase was new, or the word or phrase's conventional meaning was in flux. Computer-assisted research techniques expand epistemic determinacy to some degree, but not sufficiently to eliminate the claimed epistemic indeterminacy that is the Inaccuracy Critique's core. For this, and other reasons, originalists have developed the concept of constitutional construction.

First, I have shown how CART operates upon one facet of originalist interpretation: the recovery of the constitutional text's original conventional meaning. Originalism is a multi-faceted enterprise that requires an interpreter to perform several tasks. One foundational task is the recovery of the text's conventional meaning. I argued above that CART augments this activity.<sup>216</sup>

However, originalism also requires that interpreters perform other activities. For example, a scholar or judge must identify whether a word is part of a broader phrase in the Constitution, and how that phrase potentially modifies the word's conventional meaning. For example, even if a scholar recovered the conventional meaning of "speech," in the First Amendment, because that word is part of a broader phrase, "the freedom of speech," the scholar would have to

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<sup>213</sup> If the scholar or judge did not do this, others will criticize the scholar or judge for that failure.

<sup>214</sup> See *State v. Rasabout*, 356 P.3d 1258, 1271-90 (Utah 2015) (Lee, J., concurring).

<sup>215</sup> Whatever that may be.

<sup>216</sup> See *supra* Part II.I.

subsume speech's conventional meaning into the phrase's meaning.<sup>217</sup> This Article does not address whether and, if so, how, CART facilitates this activity.<sup>218</sup> Therefore, these other facets of originalist interpretation (may) remain subject to the Critique.

Second, CART will not eliminate the Inaccuracy Critique when CART's two necessary conditions are not met. These two conditions are: first, there must be instances of the word or phrase in searchable electronic document format; and, second, these usages must be sufficient to provide confidence that a convention existed (or did not exist). If these conditions are not met, then CART cannot operate. It is unlikely that either of these conditions will not exist for most texts and phrases in the Constitution.

To test this, I searched the *Pennsylvania Gazette* from 1728-1800, for "letters of marque and reprisal," a term of art from Art. I., sec. 8, cl. 11, and sec. 10, cl. 1, one of the least discussed and studied provisions in Article I. I found that four usages occurred of the entire phrase, 327 usages of "letter marque~2," and one usage of "letter reprisal~2."<sup>219</sup> These modest results, by themselves, may be insufficient to create confidence in a language convention but, coupled with other searchable documents,<sup>220</sup> it is likely that CART will uncover a convention for even this phrase. And, since most of the Constitution's text, including its more important texts, are more like "Commerce"<sup>221</sup> than "Letters of Marque and Reprisal," CART's necessary conditions will typically be met. However, if originalism is unable to satisfy one or both of these criteria, CART will be unable to blunt the Critique.

Third, human error may undermine CART's ability to blunt the Inaccuracy Critique. I argued earlier that CART is relatively easy to

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<sup>217</sup> See Eugene Volokh, *Symbolic Expression and the Original Meaning of the First Amendment*, 97 GEO. L.J. 1057, 1079 (2009) ("If we pay attention to the constitutional text, presumably because the text received legal approval as the supreme law of the land, we should focus on what the phrase actually meant as a legal concept when it was enacted, and not just on what the individual words mean in non-legal contexts. This is why those Justices who most focus on the constitutional text continually stress the original meaning of the legal phrases.").

<sup>218</sup> Though, CART can be used for phrases, as well as individual words, so an originalist could attempt to ascertain whether there was a conventional meaning of the phrase "the freedom of speech."

<sup>219</sup> ACCESSIBLE ARCHIVES, <http://www.accessible.com/accessible/preLog> (last visited Sept. 16, 2016).

<sup>220</sup> See, e.g., 1 WILLIAM BLACKSTONE, COMMENTARIES \*249-51.

<sup>221</sup> Professor Barnett's search of the *Pennsylvania Gazette* for "commerce" returned 1594 uses. Barnett, *New Evidence*, *supra* note 10, at 857.

use,<sup>222</sup> and it is. Because of this, there is reason to expect that the error rate will be low. However, three facets of CART may make the error rate more than de minimis. First, a scholar or judge using CART will create a stable of possible conventions, typically based on his preliminary investigation into the relevant case law, legal scholarship, and historical scholarship. This stable may not include the convention that actually best describes the usages in the sources. Second, a scholar or judge may misjudge whether a convention exists. He may study too few sources or unrepresentative sources, study too few usages, or conclude that an insufficient number of usages constitutes a convention. Third, a judge or scholar may misjudge which convention best fits the identified usages and choose the wrong convention.

Fourth, CART's value for new words or phrases is limited. A truly new word or phrase, one first articulated at the Philadelphia Convention, would not have a nationwide convention, because the American People had not yet used it. Fortunately, none of the Constitution's words are new, and this should not be surprising since truly new words are rare in English.<sup>223</sup> All of the Constitution's words and phrases, and at least part of their meanings, pre-existed the Constitution. From the common-place, like "Commerce,"<sup>224</sup> to the long-standing, such as "ex post facto,"<sup>225</sup> and to the repurposed, such as "executive Power,"<sup>226</sup> the Constitution is composed of words and phrases the Framers drew from their legal and cultural traditions.

There are words and phrases, however, whose meanings changed during and because of the Framing and Ratification. For example, the "executive Power" wielded by the President is clearly related to the United Kingdom's monarch's authority, but it is also different.<sup>227</sup> On the one hand, the President, like the king, possesses the power to command the military.<sup>228</sup> On the other hand, the President was not

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<sup>222</sup> See *supra* Part I.B.

<sup>223</sup> See ROBERT STOCKWELL & DONKA MINKOVA, *ENGLISH WORDS: HISTORY AND STRUCTURE* 5 (2001). William Shakespeare is widely known, among other reasons, for his prolific creation of new English words.

<sup>224</sup> See U.S. CONST. art. I, § 8, cl. 3.

<sup>225</sup> See Evan C. Zoldan, *The Civil Ex Post Facto Clause*, 2015 WIS. L. REV. 727, 736 ("The phrase *ex post facto* did not originate during the debate in Philadelphia over the text of the Constitution. This Latin phrase was known to English jurists who, in turn, learned the concept from classical literature.").

<sup>226</sup> See U.S. CONST. art. II, § 1, cl. 1.

<sup>227</sup> See Rakove, *Joe the Ploughman*, *supra* note 15, at 592-93; see also RAKOVE, *supra* note 15, at 244-87 (describing the debate over the presidency).

<sup>228</sup> See U.S. CONST. art. II, § 2, cl. 1.

granted the power, like the king, to declare war.<sup>229</sup> Another example is the word “Constitution” itself.<sup>230</sup> A constitution shifted from being “a description of a form of government,” to a document expressing “supreme fundamental law,” one that was “adopted through a specially elected convention.”<sup>231</sup>

For words whose meanings changed during the period of Framing and Ratification, CART may not be able to identify a convention that was fine-grained enough to capture the nuances of the changed meaning. Instead, CART may identify a more general conventional meaning that is vague on the point(s) of change.<sup>232</sup> Computer-assisted research provides some value here, but does not eliminate underdeterminacy.

More substantially, CART will be unable to identify a convention for words and phrases whose meanings are fluid. The Revolutionary and Framing periods were times of change and intellectual ferment.<sup>233</sup> To take just one example, the concept of sovereignty was first modified by the American Revolutionaries to justify the break with the United Kingdom,<sup>234</sup> and then modified again to fit the new “federal” government constituted by the Constitution.<sup>235</sup> It is likely that some of the Constitution’s texts’ meanings were part of these changes. Application of CART to these words and phrases would reveal either no convention existed, because there were distinct subconventions, or that there was a convention at an abstract level, but inconsistent concrete conventions.

One might initially think that, in principle, CART is unable to identify original language conventions for essentially contested concepts and terms of art. However, even here, CART can operate.

First, CART is able to identify the existence of a contested concept and whether and which conception of the concept constituted the

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<sup>229</sup> See *id.* art. I, § 8, cl. 11.

<sup>230</sup> See *id.* pmb.; see also Rakove, *Joe the Ploughman*, *supra* note 15, at 589-91 (describing the historical evolution of the concept of constitution).

<sup>231</sup> See Rakove, *Joe the Ploughman*, *supra* note 15, at 590-91.

<sup>232</sup> From there, originalist scholars and judges would turn to contextual enrichment to ascertain whether the word or phrase’s original meaning determinatively identified the change(s).

<sup>233</sup> See Cornell, *Originalism as Thin Description*, *supra* note 30, at 5; Rakove, *Joe the Ploughman*, *supra* note 15, at 593.

<sup>234</sup> See AKHIL REED AMAR, *AMERICA’S CONSTITUTION: A BIOGRAPHY* 6-39 (2005).

<sup>235</sup> See THE FEDERALIST NO. 39 (James Madison) (“It is to be the assent and ratification of the several States, derived from the supreme authority in each State, the authority of the people themselves. The act, therefore, establishing the Constitution, will not be a NATIONAL, but a FEDERAL act.”).

original language convention. A contested concept is one about which reasonable people have and will continue to disagree by having different conceptions of that concept.<sup>236</sup> These reasonable people agree on the concept; they disagree about its instantiation. Scholars point to justice as an example: all reasonable people agree that justice is important, and typically agree that it constitutes “giving each his due;”<sup>237</sup> reasonable people disagree, however, over what “due” means.<sup>238</sup> For example, Saint Thomas Aquinas argued that justice was composed of commutative and distributive justice,<sup>239</sup> while the utilitarians argued that justice was maximizing utility.<sup>240</sup>

Computer-assisted research techniques are a tool to empirically evaluate language usage. Therefore, CART can determine whether a concept is contested by its usage patterns. It can identify when a concept is used and ascertain whether more than one conception of the concept was employed. Computer-assisted research techniques — assuming the two necessary conditions are met — can identify a contested concept’s conventional meaning. Contested concepts, like others, find their way into speech usages. For example, Americans today, like Americans in 1787, employed the concept of justice. Computer-assisted research will identify these usages and identify the conventional manner in which they were utilized. The technique can then empirically discern which of the competing conceptions constituted the conventional meaning of the concept. This would require that one of the conceptions have commanded sufficient allegiance that it was the conventional meaning of the concept. With a sufficiently robust corpus, CART can make this determination.<sup>241</sup>

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<sup>236</sup> See DWORKIN, *supra* note 70, at 103-04; W.B. Gallie, *Essentially Contested Concepts*, 56 PROC. ARISTOTELIAN SOC’Y 167, 167 (1956) (articulating this phenomenon). I do not take a position on the existence of contested concepts and instead, for purposes of this Article, assume they exist.

<sup>237</sup> See, e.g., ARISTOTLE, NICOMACHEAN ETHICS bk. V, at 124 (J.M. Mitchell ed., 1910).

<sup>238</sup> See ALASDAIR MACINTYRE, WHOSE JUSTICE? WHICH RATIONALITY? 1-11 (1988) (describing lack of consensus on justice and rationality).

<sup>239</sup> See II-II ST. THOMAS AQUINAS, SUMMA THEOLOGICA, at Q. 58, arts. 5, 7 (Fathers of the English Dominican House trans., Benziger Bros. ed. 1947); see also JOHN FINNIS, AQUINAS 188 (1998).

<sup>240</sup> See, e.g., JOHN STUART MILL, UTILITARIANISM 62-96 (7th ed. 1879) (arguing that justice is, and is consistent with, the principle of utility).

<sup>241</sup> This is likely to occur in a society with a thick common vision of the good — generally or on a particular subject matter. For instance, in thirteenth century Western Europe, the Aristotelian conception of justice was the conventional conception, though not the only one. See FREDERICK CHARLES COPLESTON, MEDIEVAL PHILOSOPHY 13-15 (1952). However, it is less likely that late-eighteenth century

It is not clear whether the Constitution contains contested concepts. There are words and phrases in the Constitution that could be contested concepts. “[D]ue process of law”<sup>242</sup> and “cruel,”<sup>243</sup> for instance. However, the scholarship on these and other potential contested concepts suggests that they possessed determinate original meanings.<sup>244</sup>

Second, CART can identify a conventional meaning for terms of art. Terms of art are words and phrases that have a technical meaning within the relevant practice and either do not have a meaning outside of that practice or have a different meaning.<sup>245</sup> Terms of art meet CART’s necessary conditions. An originalist would search for all uses of, for example, “ex post facto” in those documents in which such a term of art would be used: legal treatises,<sup>246</sup> cases,<sup>247</sup> legal arguments,<sup>248</sup> and any public debate over the concept.<sup>249</sup> From this, the scholar or judge would ascertain whether a convention existed and what that convention was. Professor Evan Zoldan’s recent scholarship provides an example of a scholar utilizing CART and being able to identify the original meaning of the term of art.<sup>250</sup> Professor Zoldan identified uses of the phrase in pre-Constitution state and colonial cases using CART.<sup>251</sup>

In fact, use of CART for terms of art is in some ways easier than for more-typical words and phrases. This is because the conventional meaning of terms of art is less likely to be modified by context than common words and phrases.

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Americans shared a common conception of justice, because of the fracturing of Western society. See BRAD S. GREGORY, *THE UNINTENDED REFORMATION: HOW A RELIGIOUS REVOLUTION SECULARIZED SOCIETY 180-234* (2012).

<sup>242</sup> U.S. CONST. amend. V.

<sup>243</sup> U.S. CONST. amend. VIII.

<sup>244</sup> See, e.g., John F. Stinneford, *Rethinking Proportionality Under the Cruel and Unusual Punishments Clause*, 97 VA. L. REV. 899, 978 (2011); Ryan C. Williams, *The One and Only Substantive Due Process Clause*, 120 YALE L.J. 408, 459, 499-500 (2010).

<sup>245</sup> See Solum, *Originalism and Constitutional Construction*, *supra* note 69, at 503-04.

<sup>246</sup> See, e.g., 1 WILLIAM BLACKSTONE, COMMENTARIES.

<sup>247</sup> See, e.g., *Calder v. Bull*, 3 U.S. 386 (1798).

<sup>248</sup> See, e.g., *id.* at 391.

<sup>249</sup> See, e.g., THE FEDERALIST NO. 44 (James Madison).

<sup>250</sup> See Zoldan, *supra* note 225, at 783-85.

<sup>251</sup> See *id.* at 754 n.159 (describing the author’s use of CART in electronically searchable databases).

CONCLUSION

In this Article, I argued that coupling CART with public meaning originalism increases originalism's methodological rigor and responds to a major criticism of originalism. Computer-assisted research techniques will help originalism blunt the Inaccuracy Critique by providing easier and more reliable access to the original language conventions, which form the bedrock of the Constitution's original meaning. However, CART does not eliminate the Inaccuracy Critique because CART cannot eliminate all underdeterminacy of constitutional meaning.