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Tom Ginsburg

Nick Foti

Daniel Rockmore

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Tom Ginsburg, Nick Foti, and Daniel Rockmore

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“WE THE PEOPLES”: THE GLOBAL ORIGINS OF CONSTITUTIONAL PREAMBLES

TOM GINSBURG*

NICK FOTI**

DANIEL ROCKMORE***

I. INTRODUCTION

In 2011, South Sudan successfully broke away from its northern neighbor and became the world’s newest country. South Sudan’s leaders had prepared for this moment by writing, with the help of international advisors, a transitional constitution.¹ Though international actors had significant influence on the text, the Constitution began, “We, the People of South Sudan,” and went on to elaborate on the basic goals, values, and history of the state.² The values include justice,

* Leo Spitz Professor of International Law and the Ludwig and Hilde Wolf Research Scholar, University of Chicago, and Research Professor, American Bar Foundation. Ph.D. (Jurisprudence and Social Policy) 1999, University of California, Berkeley; J.D. 1997, University of California, Berkeley; B.A. 1989, University of California, Berkeley. Thanks to Zachary Elkins, Alison LaCroix, David Law, James Melton, and Mila Versteeg for helpful comments, and to Emily Hasley Eckert, Leah Fiddler, Sonali Maulik, and Albert Chang for research assistance. Athina Panatopoulou conducted the sentiment analysis described in the Appendix. Professor Ginsburg gratefully acknowledges the support of the National Science Foundation, Award No. SES-0648288 and the Russell Baker Scholars Fund of the University of Chicago Law School.

** Postdoctoral Fellow in the Department of Statistics, University of Washington. Ph.D. (Computer Science) 2013, Dartmouth College; B.S. (Computer Science) 2007, Tufts University.

*** William H. Neukom ‘64 Professor of Computational Science, Dartmouth College. Ph.D. (Mathematics) 1989, Harvard University; M.A. (Mathematics) 1986, Harvard University; A.B. (Mathematics) 1984, Princeton University.

1. See generally Kevin Cope, *South Sudan’s Dualistic Constitution*, in SOCIAL AND POLITICAL FOUNDATIONS OF CONSTITUTIONS 295 (Denis J. Galligan & Mila Versteeg eds., 2013) (describing interaction of local and national forces in constitution-making).

2. The full text is as follows:

We, the People of South Sudan, Grateful to the Almighty God for giving the people of South Sudan the wisdom and courage to determine their destiny and future through a free, transparent, and peaceful referendum in accordance with the provisions of the Comprehensive Peace Agreement, 2005; Recalling our long and heroic struggle for justice, freedom, equality and dignity in South Sudan; Remembering and inspired by the selfless sacrifices of our martyrs, heroes and heroines; Dedicated to a genuine national healing process and the building of trust and confidence in our society through dialogue; Determined to lay the foundation for a united, peaceful and prosperous society based on justice, equality, respect for human rights and the rule of law; Committed to establishing a decentralized democratic multi-party system of governance

human rights, rule of law, and protection of natural resources, among many others.³

South Sudan's preamble seems typical—it is safe to say that most constitutional preambles are framed as the quintessential expression of *national* values.⁴ Preambles often speak in the name of a distinct people, either real or fictional, who are both the creators and subjects of the constitutional order.⁵ Frequently, preambles recount key historical events such as the national struggle for independence.⁶ In this sense, they constitute autobiographical narratives, legitimating specific local actions, historical moments, and organizations.⁷ Call this the *national expression* thesis: constitutions, particularly preambles, reflect local needs, idioms, and aspirations.

We know, however, that drafters of constitutions borrow many other aspects from abroad. Scholars have demonstrated that many provisions in constitutions are similar to those of other countries. For example, David Law and Mila Versteeg have shown that rights provisions have spread around the globe.⁸ Zachary Elkins and his co-authors show that some rights, such as freedom of expression, have become nearly

in which power shall be peacefully transferred and to upholding values of human dignity and equal rights and duties of men and women; Conscious of the need to manage our natural resources sustainably and efficiently for the benefit of the present and future generations and to eradicate poverty and attain the Millennium Development Goals; Do hereby, through this Southern Sudan Legislative Assembly, amend the Interim Constitution of Southern Sudan, 2005, which shall be adopted and hereafter referred to as the “Transitional Constitution of the Republic of South Sudan, 2011,” and shall be the supreme law by which the independent and sovereign South Sudan shall be governed during the Transitional Period, and undertake to abide by, respect and defend it.

THE TRANSITIONAL CONSTITUTION OF THE REPUBLIC OF SOUTH SUDAN, July 9, 2011, pmbl.

3. *Id.*

4. See, e.g., Mark McKenna, Amelia Simpson & George Williams, *First Words: The Preamble to the Australian Constitution*, 24 U. NEW S. WALES L.J. 382, 382 (2001) (arguing that preambles are culturally specific); George Winterton, *The 1998 Convention: A Reprise of 1898?*, 21 U. NEW S. WALES L.J. 856, 862 (1998) (positing that preambles represent the “people’s vision of themselves”).

5. See McKenna, Simpson & Williams, *supra* note 4, at 383–84 (preamble of the Constitution of South Africa identifying the South African people and the Australian Constitution identifying the Australian people).

6. See, e.g., THE TRANSITIONAL CONSTITUTION OF THE REPUBLIC OF SOUTH SUDAN, July 9, 2011, pmbl.

7. See BEAU BRESLIN, FROM WORDS TO WORLDS: EXPLAINING CONSTITUTIONAL FUNCTIONALITY 54 (2009) (providing an example of the Mozambique charter preamble that provides particular historical details).

8. David S. Law & Mila Versteeg, *The Evolution and Ideology of Global Constitutionalism*, 99 CAL. L. REV. 1163, 1194–98 (2011) (discussing systematic patterns of global constitutional evolution and trends in global constitutionalism, including the increasing number of rights per constitution).

universal, while others have not.⁹ Some have argued that there is a kind of global script at work, whereby nation-states use constitutions to participate in global discourses.¹⁰ Scholars in the World Polity school of sociology, for example, emphasize the global interdependence of policy and institutional choices, so that constitutional texts respond to external forces as much as internal ones.¹¹

If this is true of constitutions in general, might it also be true of preambles? The very concept of a preamble, of course, has been widely borrowed and influential since the early years of constitution-making.¹² But we do not really know how much borrowed material preambles contain. Nor do we have a sense as to where the sources of innovation lie. These questions would benefit from further systematic study of preambles.

This Article seeks to tackle this challenge by examining the global influences on constitutional preambles. It does so using a new set of tools in linguistic and textual analysis, applied to a unique database of most constitutional preambles written since 1789.¹³ Recent advances in text processing allow us to identify, for example, which phrases have been repeated across multiple constitutional texts. We can also determine the extent to which any particular constitution is a source of innovation and influence on others. These tools allow us to trace, with much greater precision, patterns of borrowing across time and space.

9. ZACHARY ELKINS, TOM GINSBURG & JAMES MELTON, *THE ENDURANCE OF NATIONAL CONSTITUTIONS* 27–28 (2009) [hereinafter ELKINS ET AL., *NATIONAL CONSTITUTIONS*]; Zachary Elkins, Tom Ginsburg & Beth Simmons, *Getting to Rights: Constitutions and International Law*, 54 HARV. INT'L L.J. 61, 62 (2013) (examining the adoption of rights in national constitutions in the post-World War II period).

10. Julian Go, *A Globalizing Constitutionalism? Views from the Postcolony, 1945–2000*, 18 INT'L SOC. 71, 90 (2003) (using primary data from the constitutional texts to question the effects of global political norms upon documentary constitutionalism); John Boli, *Human Rights or State Expansion? Cross-National Definitions of Constitutional Rights, 1870–1970*, in INSTITUTIONAL STRUCTURE: CONSTITUTING STATE, SOCIETY, AND THE INDIVIDUAL 131, 131–32 (1987); John Boli-Bennett & John W. Meyer, *The Ideology of Childhood and the State: Rules Distinguishing Children in National Constitutions, 1870–1970*, 43 AM. SOC. REV. 797, 797–98 (1978) (discussing how the ideological rules of differentiated and state-managed childhood spread to different nation-states regardless of their levels of organizational development); see also David Law, *Generic Constitutional Law*, 89 MINN. L. REV. 652, 661–62 (2005) (explaining the emergence of constitutional commonalities due to reciprocal influences and shared theoretical and practical challenges).

11. Law & Versteeg, *supra* note 8, at 1166–70.

12. The preamble of the U.S. Declaration of Independence served as an inspiration to subsequent European liberals. George Athan Billias, *American Constitutionalism and Europe, 1776–1848*, in AMERICAN CONSTITUTIONALISM ABROAD 13, 18 (George Athan Billias ed., 1990) (explaining this history). See generally DAVID ARMITAGE, *DECLARATIONS OF INDEPENDENCE: A GLOBAL HISTORY* 63–103 (2007) (on the borrowing of declarations of independence after the U.S. innovation).

13. See *infra* Table 3.

By introducing these tools to legal scholarship, this Article provides an example of how text analysis can help us understand the ways in which legal texts are interrelated. The interdependence of law across jurisdictions is a topic on which there has been much informal work, but relatively little work using modern statistical tools and no work to date that we are aware of using text analysis.

These methodological innovations also allow us to contribute to the relatively sparse literature on preambles. Preambles are an understudied topic in comparative constitutional law, perhaps because they are not typically included in the legally operative part of the constitutional text.¹⁴ In the United States, the preamble of the Constitution is well known to most high school civics students, but rarely appears in court documents.¹⁵ Although there are exceptions—notably France, where the Conseil Constitutionnel has held that the preamble of the 1958 Constitution renders operative both the French Declaration of the Rights of Man and the preamble of the 1946 Constitution—most constitutional preambles do not have binding legal force.¹⁶

14. See Sanford Levinson, *Do Constitutions Have a Point? Reflections on "Parchment Barriers" and Preambles*, in WHAT SHOULD CONSTITUTIONS DO? 150, 157 (Ellen Frankel Paul, et al. eds, 2011) (arguing that constitutional preambles should receive greater attention); JUSTIN O. FROSINI, CONSTITUTIONAL PREAMBLES AT A CROSSROADS BETWEEN POLITICS AND LAW 76–77 (2012) (presenting a global study of preambles). In *District of Columbia v. Heller*, Justice Stevens wrote the following:

where the text of a clause itself indicates that it does not have operative effect, such as “whereas” clauses in federal legislation or the Constitution’s preamble, a court has no license to make it do what it was not designed to do. . . . [O]perative provisions should be given effect as operative provisions, and prologues as prologues.

554 U.S. 570, 578 n.3 (2008). On this tradition in the common law, see JOEL PRENTICE BISHOP, COMMENTARIES ON WRITTEN LAWS AND THEIR INTERPRETATION 49 (1882) (“It is nothing unusual in acts . . . for the enacting part to go beyond the preamble; the remedy often extends beyond the particular act or mischief which first suggested the necessity of the law.”) (quoting *Rex v. Marks*, 102 Eng. Rep. 557, 560 (K.B. 1802)). But see *Heller*, 554 U.S. at 643 (Stevens, J., dissenting) (arguing that preambular clauses should carry legal weight).

15. Levinson, *supra* note 14, at 157. See Milton Handler, Brian Leiter & Carole E. Handler, *A Reconsideration of the Relevance and Materiality of the Preamble in Constitutional Interpretation*, 12 CARDOZO L. REV. 117, 120–21 (1990) (twenty-four total citations in court cases at that point); see generally Dan Himmelfarb, *The Preamble in Constitutional Interpretation*, 2 SETON HALL CONST. L.J. 127, 145–201 (1991) (reviewing case law). Some of the cases are frivolous. In a recent case, *Jacobs v. Pataki*, 68 Fed. Appx. 222, 224 (2d Cir. 2003), the plaintiff relied on the preamble to argue that “the ‘United States of America’ that was granted Article III power in the Constitution is distinct from the ‘United States’ that currently exercises that power.” The Court dismissed this argument, citing the Preamble’s mention of “the United States of America.” *Jacobs*, 68 Fed. Appx. at 224.

16. Conseil constitutionnel [CC] [Constitutional Court] decision No. 71-44DC, July 16, 1971, Rec. 29, 29 (Fr.) (incorporating Declaration of Rights of Man into an operable part of the French Constitution). France’s preamble has been likened to a Matryoshka doll because of its incorporation of other fundamental French documents by reference. Justin O. Frosini, *Changing Notions of Democracy: A Comparative Analysis of Constitutional Preambles*, in DEMOCRACY WITH(OUT) NATIONS? OLD AND NEW FOUNDATIONS FOR POLITICAL COMMUNITIES IN A

But constitutions are about more than creating enforceable law; they are also supposed to express the fundamental values and aspirations of the people, and bind them together as a nation.¹⁷ They are, as one scholar has recently noted, “mission statements.”¹⁸ For these functions, the preamble may be as important as any more enforceable provision. Preambles articulate the ends of the constitutional project and can therefore be powerful motivators.¹⁹ As Professor Levinson notes, preambles “make vivid the complex relationship between the presumptive ends underlying a given constitution and the particular means that it authorizes to achieve those ends,”²⁰ or, as one delegate to the Australian Constitutional Convention said in 1998, “The preamble is effectively the lymph gland of the Constitution.”²¹ By inspiring and motivating the people, preambles may help to ensure that the rest of the constitutional text is more efficacious than it would otherwise be.

A note on definitions: for our purposes, we consider the preamble any statement that precedes the formal text of numbered articles of a constitution. Although sometimes formally designated as a preamble, some constitutional texts use other terms or simply leave the introductory statement unnamed, and these are included in our analysis.²² On the other hand, we exclude formal articles of the constitution, even if they might play a similar functional role to that of preambles. It is not uncommon, for example, for the first few articles of

CHANGING WORLD 83, 101 (Igor Filibi et al. eds., 2011) (developing Matryoshka Doll metaphor); FROSINI, *supra* note 14, at 64–65 (same); *see* Liav Orgad, *The Preamble in Constitutional Interpretation*, 8 INT’L J. CONST. L. 714, 738 (2010) (describing various approaches to using the preamble in constitutional adjudication); Anne Winckel, *The Contextual Role of a Preamble in Statutory Interpretation*, 23 MELB. U. L. REV. 184, 184–91 (1999) (analyzing the role of preambles in Australian statutes); Kent Roach, *The Uses and Audiences of Preambles in Legislation*, 47 MCGILL L.J. 129, 152–53 (2001) (analyzing the use of preambles in Canada); BEREKET HABTE SELASSIE, *THE MAKING OF THE ERITREAN CONSTITUTION: THE DIALECTIC OF PROCESS AND SUBSTANCE* 32 (2003) (discussing the creation of enforceable law in Eritrea).

17. *See* GORDON S. WOOD, *THE CREATION OF THE AMERICAN REPUBLIC 1776–1787*, at 344–54 (1969) (tracing history of popular sovereignty in early America and its influence on constitutional formation); EDMUND MORGAN, *INVENTING THE PEOPLE: THE RISE OF POPULAR SOVEREIGNTY IN ENGLAND AND AMERICA* 58–63 (1988) (discussing the concept of popular sovereignty as a fiction); BRESLIN, *supra* note 7, at 7 (describing functions of constitutions and constitutional preambles).

18. Jeff King, *Constitutions as Mission Statements*, in *SOCIAL AND POLITICAL FOUNDATIONS OF CONSTITUTIONS* 73, 73 (Denis J. Galligan & Mila Versteeg eds., 2013).

19. *See id.*; *see generally* FROSINI, *supra* note 14, at 49–66 (analyzing and comparing the preambles of the French and U.S. Constitutions).

20. Levinson, *supra* note 14, at 158–59.

21. FROSINI, *supra* note 14, at 19 (quoting Greg Craven).

22. *See, e.g.*, NIHONKOKU KENPŌ [KENPŌ][CONSTITUTION] (Japan) (no formal designation as preamble).

a constitution to define the fundamental attributes of the state.²³ Conversely, a few preambles include detailed statements of rights that are more typically found in the operative part of the constitution.²⁴ These latter provisions are included in our analysis because they are placed within the preamble.

We rely on a sample from the Comparative Constitutions Project, a large effort to document the contents of all the world's constitutions since 1789.²⁵ For the purposes of this Article, we focus on a set of 476 constitutions that have preambles available in English. This is part of a broader sample of 742 coded constitutions, of which 596 (or eighty percent) contain preambles.²⁶

The Article proceeds as follows. We first review, in Part II, some of the history of preambles and provide some illustrative examples of their contents. Preambles vary on a number of dimensions, including their length, tone, and contents. They surely reflect local conditions, but they also reflect forces that arise from outside the nations' borders. In Part III, we analyze "memes" that are found in a large number of preambles, demonstrating the origins and spread of popular phrases from one country to another. By analogizing language to genetic material, we show how writers of preambles borrow from the language of other preambles. Of course, not every phrase or word is borrowed, and sometimes constitution-makers will innovate. We explore this issue of linguistic innovation in Part IV, using multivariate regression techniques to isolate the factors that predict levels of innovation from one preamble to another. We examine innovation *within* a country's series of constitutions, as well as innovation *across* constitutions written at a particular time. A key finding is that innovation is correlated regionally and temporally: countries are more likely to innovate when their neighbors do so, and innovations tend to come in global waves.²⁷

23. See, e.g., THE PERMANENT CONSTITUTION OF THE STATE OF QATAR (2004), art. 1 ("Qatar is an independent sovereign Arab state. Its religion is Islam and the Shari'a Law shall be the principal source of its legislation. Its political system is democratic. The Arabic Language shall be its official language. The people of Qatar are a part of the Arab nation.").

24. See, e.g., CONSTITUTION OF THE REPUBLIC OF CHAD (1996), pmb1. (affirming commitment to principles of human rights, the right to resist and to disobey any individual or group that would assume power by force or exercise power in violation of the constitution, and total opposition to any regime whose policy would be founded on arbitrariness, dictatorship, injustice, corruption, extortion, nepotism, emphasis of clan, tribe or religion, tribalism, confessionalism, or confiscation of power).

25. For more on the project, see COMPARATIVE CONSTITUTIONS PROJECT, <http://comparativeconstitutionsproject.org> (last visited Dec. 2, 2013).

26. Athina Panotopoulou, Sentiment Analysis of Constitutions (Mar. 23, 2013) (unpublished report) (underlying data in STATA format on file with authors).

27. See discussion *infra* Part III.

Conversely, most of the time, “We” the proverbial “People” do not speak in novel terms, but instead use a global idiom.²⁸ Preambles, like other parts of the constitution, seem to borrow heavily from each other. Part V concludes with some thoughts on the implications of the method and analysis for other areas of law.

II. CONSTITUTIONAL PREAMBLES: ORIGIN AND VARIATION

A. *Origins*

Constitutional preambles originate in the ancient Greek world and are discussed extensively in Plato’s *Laws*.²⁹ The Athenian Stranger argues that legislators should do more than simply issue a set of commands in the form of law.³⁰ Instead, he encourages legislators to add a persuasive element to the code.³¹ Just as an effective doctor helps explain to the patient the nature of the illness and proposes a remedy, so legislators should use persuasion and explanation to make their laws more acceptable and effective.³² This suggests a link between the efficacy of a legal text and the presence or absence of a preamble.

Although the concept of preambles dates back to the ancient Greeks, the modern origins of constitutional preambles lie in the British practice of prefacing royal decrees and statutes with short statements describing their purpose.³³ For example, the Statute of Anne recites the ills of copyright violations in the publishing industry before launching into the law itself.³⁴ This general pattern of providing a justification for law seems rooted in the need to address the subjects of the law outside of

28. See discussion *infra* Part IV.

29. PLATO, *THE LAWS* 132 (Trevor J. Saunders trans., 2004).

30. *Id.*

31. Christopher Bobonich, *Persuasion, Compulsion, and Freedom in Plato’s Laws*, 41 *CLASSICAL Q.* 365, 365 (1991) (explaining Plato’s proposal to attach preambles to particular laws and to the legal code as a whole in order to persuade citizens to act in compliance with the law).

32. In the notes accompanying his translation of Plato, Trevor Saunders explains as follows: Just as a ‘free’ doctor explains the patient’s illness to him, and tries to make him understand the reasons for the measures to be prescribed, in order to gain his co-operation [sic], so the legislator must explain and justify his laws. Hence every law must be headed by a preamble justifying its provisions; further, the preamble must be rhetorical in character: it must not only instruct, but persuade.

PLATO, *supra* note 29, at 132.

33. GARY SLAPPER & DAVID KELLY, *THE ENGLISH LEGAL SYSTEM* 100 (2010) (“It was a feature of older statutes that they contained a *preamble*, which was a statement, preceding the actual provisions of the Act, setting out its purposes in some detail and to which reference could be made for purposes of interpretation.”).

34. Lyman Ray Patterson, *The Statute of Anne: Copyright Misconstrued*, 3 *HARV. J. ON LEGIS.* 223, 249 (1965) (discussing the significance of the Statute of Anne, including the reasoning behind the statute as set out in the preamble).

the operative legal language.³⁵ Without a doubt, it shares the same assumption that explanation will help make the law more legitimate and effective.

In the constitutional context, we observe the first preambles in U.S. state constitutions that antedate the U.S. Federal Constitution. All of the thirteen states but Connecticut and Rhode Island (which continued to be governed by Royal Charters) had adopted constitutions before the Convention in Philadelphia, and all of these documents, save that of Maryland, had included preambles.³⁶ The preambles often referred to Great Britain, and some (such as that of New York) referenced the Declaration of Independence.³⁷ There was a good deal of horizontal and vertical borrowing among and within the states: Vermont's preamble of July 1777 has sections nearly identical to parts of Pennsylvania's preamble of September 1776; the Vermont Constitution of 1786 retains the same preamble.³⁸ Thus, we observe copying between states, as well as within the sequence of constitutions in a single jurisdiction.³⁹ This pattern foreshadows the international patterns we describe below.

The first national constitution is that of the United States, and the phrase "We the People" has become eponymous with its preamble.⁴⁰ Had history been slightly different, it might have been almost the entire preamble. The first draft of the new constitution on August 6, 1787, read only: "We the People of the States of New-Hampshire, Massachusetts, Rhode-Island and Providence Plantations, Connecticut, New-York, New-Jersey, Pennsylvania, Delaware, Maryland, Virginia, North-Carolina, South-Carolina, and Georgia, do ordain, declare and

35. *See id.* (discussing how the justification for copyright found in preambles was based on the author's natural right to the property of his own mental labor).

36. Gordon S. Wood, *Foreword: State Constitution-Making in the American Revolution*, 24 RUTGERS L.J. 911, 913-14 (1993) (examining the formation of state constitutions and the creation of the primary conceptions of the U.S. political and constitutional culture).

37. *See, e.g.*, N.Y. CONST. of 1877, pmbl., *reprinted in* 1 CHARLES Z. LINCOLN, THE CONSTITUTIONAL HISTORY OF NEW YORK 162, 166 (1905) (quoting the Declaration of Independence in its entirety).

38. Paul Gillies, *Not Quite a State of Nature: Derivations of Early Vermont Law*, 23 VT. L. REV. 99, 110 (1998); 6 FEDERAL AND STATE CONSTITUTIONS, COLONIAL CHARTERS, AND OTHER ORGANIC LAWS OF THE STATES, TERRITORIES, AND COLONIES NOW OR HERETOFORE FORMING THE UNITED STATES OF AMERICA 3737 (Francis Thorpe, ed., 1909) ("Whereas, all government ought to be instituted and supported, for the security and protection of the community, as such, and to enable the individuals who compose it, to enjoy their natural rights, and the other blessings[.]").

39. *See* 6 FEDERAL AND STATE CONSTITUTIONS, COLONIAL CHARTERS, AND OTHER ORGANIC LAWS OF THE STATES, TERRITORIES, AND COLONIES NOW OR HERETOFORE FORMING THE UNITED STATES OF AMERICA, *supra* note 38, at 3749.

40. U.S. CONST. pmbl.

establish the following Constitution for the Government of Ourselves and our Posterity.”⁴¹ Gouverneur Morris elaborated on this draft to produce the final text, adding a sense of purpose to the People’s action: the ordaining of the constitution was “in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defence, promote the general welfare, and secure the Blessings of Liberty to ourselves and our Posterity.”⁴² Omitting the names of the individual states was also wise in that it was not a foregone conclusion that each state would actually ratify the Constitution.⁴³

After the adoption of the U.S. Constitution, it became somewhat standard for constitutions to include preambles, and over eighty percent of all historical constitutions have one.⁴⁴ The first Constitution of Haiti produced after independence, adopted in 1805, used the preamble to invoke religion, freedom, and the general will of the people.⁴⁵ Early constitutional preambles tended to be fairly brief and identify the entity in whose name the constitution was produced.⁴⁶ For example, the famous Constitution of Cádiz, adopted in Spain in 1812, spoke “[i]n the name of God Almighty, Father, Son, and Holy Ghost, Author and Supreme Legislator of society.”⁴⁷ In the modern era, preambles have become even more popular, and eighty-nine percent (125 out of 141) of constitutions produced after 1990 have a preamble.⁴⁸ Only one national constitution produced after 2003—that of the Maldives adopted in 2008—failed to include a preamble.⁴⁹

B. *Dimensions of Variation*

Preambles reflect different styles and have many dimensions of variation. One of them is length. In keeping with the idea that constitutions have an expressive character, constitutions produced by revolutionary regimes tend to devote the most energy to preambles, with relatively less attention to the promulgation of rights or the description

41. Carol Berkin, “*We, the People of the United States*”: *The Birth of an American Identity September 1787*, OAH MAG. HIST., July 2006, at 53.

42. U.S. CONST. pmb1.

43. See U.S. Term Limits, Inc. v. Thornton, 514 U.S. 779, 846–47 n.1 (1995) (Thomas, J., dissenting) (“Scholars have suggested that the Committee of Style adopted the current language because it was not clear that all the States would actually ratify the Constitution.”) (citing MAX FARRAND, THE FRAMING OF THE CONSTITUTION OF THE UNITED STATES 190–91 (1913)).

44. Our data show that eighty percent of all constitutions contain a preamble. Data on file with authors.

45. SECOND CONSTITUTION. HAITI (HAYITI) May 20, 1805, pmb1.

46. See, e.g., *id.*

47. POLITICAL CONSTITUTION OF THE SPANISH NATION Mar. 19, 1812, pmb1.

48. Data on file with authors.

49. See CONSTITUTION OF THE REPUBLIC OF MALDIVES (2008).

of government organs. As Table 1 shows, of the ten constitutions in our sample that have preambles of more than one thousand words, five are socialistic and another (Iran) is highly ideological.⁵⁰ Almost all on the list are from dictatorships.⁵¹ The Yugoslav Constitution of 1974 had a preamble of over six thousand words, longer than roughly one-fifth of all national constitutions in their entirety!⁵² This pattern reflects the relative importance of the constitution as a symbol, as opposed to a legally operative text, in socialist countries.⁵³ One might call these “pre-rambles.”⁵⁴

TABLE 1: LONGEST PREAMBLES

Country	Year	Words
Yugoslavia (Serbia)	1974	6164
Jamaica	1994	3603
Iran (Persia)	1979	3002
Papua New Guinea	1991	2093
Cuba	1952	1825
Liberia	1955	1293
Vietnam	1980	1284
China	1982	1071
Vietnam	1960	1052
Central African Republic	1962	1009
Ethiopia	1987	963
Japan	1889	934
Sierra Leone	1978	901
Madagascar (Malagasy)	1962	896
Syria	2000	894

At the other end of the spectrum, many constitutions have preambles that are under twenty words long.⁵⁵ The shortest in our database is that of Peru in 1826, which simply states, “In the Name of God.”⁵⁶ Indeed,

50. See *infra* Table 1.

51. See *infra* Table 1.

52. Data on file with the Comparative Constitutions Project.

53. BRESLIN, *supra* note 7, at 59.

54. Tom Ginsburg, *But What Was the Turnout in Homs?*, CONSTITUTIONMAKING.ORG (Feb. 28, 2012, 8:42 AM), <http://www.comparativeconstitutions.org/2012/02/but-what-was-turnout-in-homs.html>.

55. Data on file with authors.

56. CONSTITUCIÓN POLÍTICA DE LA REPÚBLICA PERUANA DE 1826 [CONSTITUTION OF THE REPUBLIC OF PERU OF 1826], pmb., *translated in* 14 BRITISH & FOREIGN STATE PAPERS 892 (1826–1827).

the accompanying constitution was short not only in text but also in lifespan, lasting only two years.⁵⁷ The 1828 replacement expanded the list of invocations to be promulgated: “In the name of Almighty God, Father, Son, and Holy Ghost, Author and Supreme Legislator of Society.”⁵⁸ The U.S. preamble, at forty-five words, tends toward the shorter end of the spectrum. The mean length of a preamble is 175 words, and one recent report estimates that seventy-five percent of all preambles contain fewer than three hundred words.⁵⁹

Some preambles refer to specific historical or religious figures. Jesus Christ, for example, appears in the constitutional preambles of Greece,⁶⁰ Ireland,⁶¹ and Fiji.⁶² Brunei mentions the Prophet Muhammad and Iran mentions Allah.⁶³ The Buddha, however, never appears in a preamble.⁶⁴ Vietnam’s 1960 preamble referred to Ho Chi Minh; China’s 1975 preamble referred to Mao Tse-tung; and Cuba’s 1976 preamble refers to Fidel Castro.⁶⁵ These are among very few constitutions that refer to contemporaneous living figures. More frequently, socialist constitutions praise historic thinkers such as Augusto Sandino (Nicaragua 1987), José Martí (Cuba 1976) and V.I.

57. ELKINS ET AL., NATIONAL CONSTITUTIONS, *supra* note 9, at 219 (listing Peru’s constitutions).

58. CONSTITUCIÓN POLÍTICA DE LA REPÚBLICA PERUANA DE 1828 [CONSTITUTION OF THE REPUBLIC OF PERU OF 1828], pml. (author’s translation).

59. Leah Fiddler, *The Preamble in Constitutional Endurance: Preambular Content and Its Effect on the Lifespan of National Constitutions* 29 (2013) (unpublished Master’s Thesis, University of Chicago) (on file with author).

60. 1975 SYNTAGMA [SYN.] [CONSTITUTION] pml. (Greece) (referring to the trinity).

61. IR. CONST., 1937, pml. (“[h]umbly acknowledging all our obligations to our Divine Lord, Jesus Christ, Who sustained our fathers through centuries of trial”).

62. CONSTITUTION AMENDMENT ACT FIJI ISLANDS 1997, pml. (“[r]ecalling . . . the conversion of the indigenous inhabitants of these islands from heathenism to Christianity through the power of the name of Jesus Christ; the enduring influence of Christianity in these islands and its contribution, along with that of other faiths, to the spiritual life of Fiji”).

63. PERLEMBAGAAN NEGARA BRUNEI DARUSSALAM [CONSTITUTION] Oct. 18, 1959, pml. (Brunei); ISLAHAT VA TAQYYRATI VA TATMIMAH QANUNI ASSASSI [AMENDMENT TO THE CONSTITUTION] 1368 [1989], pml (Iran).

64. In the entire corpus of constitutional texts, the Buddha is found only in references in the constitutions of Sri Lanka and Bhutan. *See, e.g.*, CONSTITUTION OF THE KINGDOM OF BHUTAN 2d sched. (2005) (referencing Buddha in the national anthem); CONSTITUTION OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA July 21, 1978, art. 9 (“The Republic of Sri Lanka shall give to Buddhism the foremost place and accordingly it shall be the duty of the State to protect and foster the Buddha *Sasana*[.]”).

65. CONSTITUTION OF VIETNAM (DEMOCRATIC REPUBLIC) Dec. 31, 1959, pml., *translated in* AMOS J. PEASLEE, 2 CONSTITUTIONS OF NATIONS 1194 (1966); XIANFA pml. (1975) (China); CONSTITUCIÓN DE LA REPÚBLICA DE CUBA [CONSTITUTION OF THE REPUBLIC OF CUBA] Feb. 24, 1976, pml., *translated in* Anna I. Vellvé Torras, *Constitution of the Republic of Cuba* (Feb. 24, 1976) (HeinOnline World Constitutions Illustrated Library 2010).

Lenin (Soviet Union 1977).⁶⁶

Other preambles frequently refer to national historical events and shared grievances, with the goal of marking out a distinct national identity.⁶⁷ Iraq's 2005 preamble, for example, has a long section recognizing specific groups that suffered under Saddam Hussein, along with several specific massacres.⁶⁸ In these instances, the preamble recounts the context in which the constitution was written, and speaks to the citizens and subjects. It forms a kind of "autobiography" of the constitution. A nice example is the following from Bolivia in 2008:

In ancient times mountains arose, rivers spread out from one place to another, lakes were formed. Our Amazonia, our swamps, our highlands and our plains and valleys were covered with greenery and flowers. We populated this sacred Mother Earth with different faces, and since that time we have understood the plurality that exists in all things and in our diversity as human beings and cultures. Thus, our peoples were formed, and we never knew racism until we were subjected to it during the terrible times of colonialism. . . . Honor and glory to the martyrs of the heroic constituent and liberating effort, who have made this new history possible.⁶⁹

Some preambles include language that is directed externally, and may read like a foreign policy statement. Consider the 2012 amendments to the preamble to North Korea's Constitution, which declared that the country had become "an invincible state of political ideology, a nuclear-armed state and an indomitable military power."⁷⁰ Adopted in the wake

66. CONSTITUCIÓN POLÍTICA DE LA REPÚBLICA DE NICARAGUA [CN.] pmbi., LA GACETA, DIARIO OFICIAL [L.G.] 9 January 1987; CONSTITUCIÓN DE LA REPUBLICA DE CUBA Feb. 24, 1976, pmbi.; KONSTITUTSIJA SSSR (1977) [KONST. SSSR] [USSR CONSTITUTION], pmbi.

67. GARY JEFFREY JACOBSON, CONSTITUTIONAL IDENTITY 3 (2010) (discussing concept of identity); Mila Versteeg, *Unpopular Constitutionalism* 9–10 (2013), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2267320 (explaining that twenty-five percent of all constitutions now have a preamble expressing national identity, as opposed to five percent of constitutions at the end of World War II).

68. Preamble, Doustour Joumhouriat al-Iraq [The Constitution of the Republic of Iraq] of 2005. The following excerpt is an example:

[R]ecollecting the darkness of the ravage of the holy cities and the South in the Sha'abaniyya uprising and burnt by the flames of grief of the mass graves, the marshes, Al-Dujail and others and articulating the sufferings of racial oppression in the massacres of Halabcha, Barzan, Anfal and the Fayli Kurds and inspired by the ordeals of the Turkmen in Bashir and the sufferings of the people of the western region . . .

69. CONSTITUCIÓN POLÍTICA DEL ESTADO, 2009 [POLITICAL CONSTITUTION OF THE STATE, 2009], pmbi. (Bol.) (although the Bolivian Constitution became effective in 2009, the preamble was drafted in and dated October 2008).

70. Leon Watson, *We ARE a Nuclear Power: North Korea's Chilling Claim in New Constitution*, DAILY MAIL (June 1, 2012, 1:36 AM), <http://www.dailymail.co.uk/news/article-2152718/New-constitution-declares-North-Korea-nuclear-armed-nation-indomitable-military-power.html> (reporting on the revised text of the North Korean Constitution that puts forth a claim of having nuclear arms); Jane Perlez, *North Korea Tests the Patience of Its Ally*, N.Y. TIMES, June 24, 2012, at A4 (reporting on North Korea's actions and public statements under the new

of a failed rocket launch, the statement seems partly designed to reassure locals of the regime's self-confidence, as well as to indicate that the controversial international nuclear stance is here to stay. Both North and South Korea's constitutions contain references to reunification.⁷¹ China's preamble reiterates that Taiwan is part of Chinese territory.⁷² Another example is the preamble to Syria's Constitution of 1973, which spoke on pan-Arab nationalism and the need to fight Zionism.⁷³ The 2012 version reflects substantial continuity, self-consciously asserting, "Syria has occupied an important political position as it is the beating heart of Arabism, the forefront of confrontation with the Zionist enemy and the bedrock of resistance against colonial hegemony on the Arab world and its capabilities and wealth."⁷⁴

As noted in the Introduction, countries differ on the question of whether preambles create enforceable law.⁷⁵ Sometimes countries will change their view in this regard. In the famous case of *Kesavananda v. State of Kerala*,⁷⁶ the Indian Supreme Court cited the preamble extensively in finding that certain constitutional amendments violated the "basic structure" of India's Constitution.⁷⁷ The whole structure of the Constitution, in the view of the Court, clearly included the preamble, and the preamble helped inform the deep constraints of the constitutional order, which could not be violated even by an amendment that had been adopted in a procedurally proper manner.⁷⁸ The purported ends of the constitutional exercise then can constrain the means, and preambles may become resources that are useful in times of stress to constrain government actors.

leadership of Kim Jong-un).

71. SOCIALIST CONSTITUTION OF THE DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA pmb. (N. Kor.) (calling Kim Il Sung the "lodestar of the national reunification"); DAEHANMINUK HUNBEOB [HUNBEOB] [CONSTITUTION] pmb. (S. Kor.) (stating a mission of "peaceful unification of our homeland").

72. XIANFA pmb. (1982) (China) ("Taiwan is part of the sacred territory of the People's Republic of China. It is the inviolable duty of all Chinese people, including our compatriots in Taiwan, to accomplish the great task of reunifying the motherland.").

73. CONSTITUTION OF THE SYRIAN ARAB REPUBLIC Mar. 13, 1973, pmb. ("[A]ny danger from colonialism and Zionism menacing any Arab country is a danger that threatens the entire Arab Nation.").

74. CONSTITUTION OF THE SYRIAN ARAB REPUBLIC Feb. 26, 2012, pmb.

75. See Orgad, *supra* note 16, at 738; FROSINI, *supra* note 14, at 49–77 (2012) (comparing the United States and France).

76. *Kesavananda Bharati v. State of Kerala*, A.I.R. 1973 S.C. 1461 (India).

77. *Id.* paras. 316, 506.

78. *Id.* para. 92 ("[I]n order to appreciate the real content of the expression 'amendment of this Constitution', in Article 368 I must look at the whole structure of the Constitution. The Constitution opens with a preamble . . .").

C. Tone

One dimension on which preambles may vary is the extent to which they seek to motivate their subjects.⁷⁹ Constitutional language is sometimes meant to inspire.⁸⁰ Modern computational linguistics has developed tools to analyze this feature systematically, using what is known as sentiment analysis.⁸¹ Sentiment analysis is a technique that measures the tone of texts; it can be considered as an indicator of how “happy” a text is.⁸² To measure sentiment, scholars use a measure of valence, typically ranging in a scale from one to nine, with higher scores indicating “happier” texts.⁸³ Using these tools, we are able to rank the most positive and negative preambles. (The technical aspects of this exercise are described in the Appendix.) The rankings are sensitive to technical decisions in the analysis, but one of the most consistently “happy” preambles is that of Bhutan in 2005.⁸⁴ It reads as follows:

WE, the people of Bhutan: BLESSED with the luminous benedictions of the Triple Gem, the protection of our guardian deities, the wisdom of our leaders, the everlasting fortunes of the Pelden Drukpa and the command of His Majesty the Druk Gyalpo, Jigme Singye Wangchuck; SOLEMNLY pledging ourselves to strengthen the sovereignty of Bhutan, to secure the blessings of liberty, to ensure justice and tranquility and to enhance the unity, happiness and well being of the people for all time; DO HEREBY ordain and adopt this Constitution for the Kingdom of Bhutan[.]⁸⁵

Like that of the United States, the preamble speaks of blessings of liberty, but it also adds a Buddhist overlay.⁸⁶ The presence of positive words such as wisdom, happiness, and luminous benedictions help to give this preamble a positive valence.⁸⁷ Whether it actually inspires citizens is beyond the scope of our inquiry, but as a matter of linguistic quality, this is clearly an optimistic document. One can imagine that the

79. BRESLIN, *supra* note 7, at 50–51.

80. *Id.* at 50.

81. See Peter Sheridan Dodds et al., *Temporal Patterns of Happiness and Information in a Global Social Network: Hedonometrics and Twitter*, 6(12) PLOS ONE 1, 1–2 (2011), available at <http://www.plosone.org/article/info:doi/10.1371/journal.pone.0026752> (describing sentiment analysis).

82. *Id.* at 1.

83. Peter Sheridan Dodds & Christopher M. Danforth, *Measuring the Happiness of Large-Scale Written Expression: Songs, Blogs, and Presidents*, 11(4) J. HAPPINESS STUD. 441, 442 (2010), available at <http://link.springer.com/article/10.1007%2Fs10902-009-9150-9> (treating psychological valence scores as measures of average happiness).

84. Data on file with authors.

85. CONSTITUTION OF THE KINGDOM OF BHUTAN July 18, 2008, pmb1.

86. *See id.*

87. *See id.*

Bhutanese public would have positive feelings toward the government that drafted this text, as well as the government that is empowered by the constitution that follows.

In contrast, one of the most consistently negative preambles in terms of sentiment analysis is that of South Vietnam in 1965.⁸⁸ This constitution was promulgated after a military coup and reads as follows:

The Armed Forces of the Republic of Vietnam, at this time of extreme danger for the defense of the right to existence of the people and for the prestige of the country, have undertaken their responsibilities before the people and before history.

In order to carry out their mission, the Armed Forces of the Republic of Vietnam do not seek demagoguery, but rather the realization of a policy of security for the population.

After so many sacrifices, the people of Vietnam continue to desire a powerful, peaceful and free nation.

The mission of the Armed Forces of the Republic of Vietnam is to fulfil [sic] this strong desire at any cost. To this end, the entire people must unite its will and its action, must direct all its efforts to the front for the repulsion and destruction of the Communist aggressors. To this end, the rear must be stabilized in order to consolidate gradually the basic organs of government so that a tradition of democracy and liberty may have the conditions favorable to its development in revolution and struggle.

Drawing the unhappy lessons of the past, the provisional Constitutional Charter which follows defines the basic institutions of the State for the purpose of fulfilling the objectives set forth above.⁸⁹

However accurate this language may be as a descriptive matter—after all, it was produced at the height of the Vietnam War—it does not seem likely to inspire. It uses terms like danger, sacrifice, defense, struggle, and unhappy lessons of the past; these are phrases likely to leave the public more scared than excited about the incoming government. Rather than raising up the aspirations of the people, this preamble reflects an exercise in justification by a military reliant on fear to govern.⁹⁰

D. Preambles as Expressive Texts

In short, preambles are expressive texts that seek to lay out the context of the constitution-making exercise. They are sometimes enforceable, but in other countries not viewed as formally operative.⁹¹ Preambles frequently invoke historical events and set out a purpose for

88. Data on file with authors.

89. REPUBLIC OF VIETNAM CONSTITUTIONAL CHARTER June 19, 1965, pmb1.

90. *Id.*

91. *See supra* text accompanying notes 14–16.

the constitution.⁹² And they will often seek to rouse and inspire the people with stirring language, though they are not always successful in doing so.⁹³

To try to integrate these various dimensions of difference, consider a simple two-dimensional typology of a preamble's language. First, preambles differ in the degree to which they focus on particularistic, national elements or universal, international ones.⁹⁴ One might think of this distinction as identifying how "we the people" differs from other peoples, as opposed to explaining how "we the people" fits into the family of other peoples. This dimension tracks national versus international emphases. Second, preambles differ in their emphasis on defining the *subject* of the constitution as opposed to the *ends* of the constitutional project.⁹⁵ The subject of the constitution is the speaker, or the people on whose behalf a constitution is written. The ends are the programmatic goals that the subject pursues through the constitution. To some extent, preambles that focus on the subject of the constitution are driven by a concern for the past, whereas preambles that focus on the ends of the constitution are more focused on goals for the future. Table 2 below summarizes the two dimensions with illustrative examples.

TABLE 2: TYPOLOGY OF PREAMBULAR LANGUAGE

	National-Particular	International-Universal
Defining the Subject	Historical narratives; We the people	Invocation of God
Defining the Ends	Foreign policy goals (e.g., national reunification); development; provide for the common defense	Human rights treaties; peace; global justice

Obviously, any given preamble can incorporate elements of all four boxes in Table 2. Some, however, are likely to emphasize one element over others. The U.S. preamble speaks in the name of "We the People," but also defines the ends of the constitutional project: the common defense, the general welfare, and the blessings of liberty.⁹⁶ It seems to

92. See *supra* text accompanying notes 67–69.

93. See *supra* text accompanying notes 60–67.

94. See *infra* Table 2.

95. See *infra* Table 2.

96. U.S. CONST. pmbl.

fit squarely on the left side of the table as a nationalist document. Many other preambles speak in a more universalistic idiom.⁹⁷ Whether focused on the specificities of a nation or its place in a broader international order, many of these examples involve references to, and potentially borrowing from, other countries and legal regimes.⁹⁸ To explore the extent to which preambles borrow or innovate, we turn to the tools of text processing.

III. INNOVATION AND BORROWING: MEMES IN CONSTITUTIONS

One important dimension on which preambles differ is the extent to which they innovate, as opposed to borrow. To analyze innovation and borrowing, our approach is to begin with a corpus of 476 constitutional preambles drawn from a larger database of over 900 constitutions found in the Comparative Constitutions Project.⁹⁹ The sample includes preambles from 171 different countries.¹⁰⁰ As mentioned in Part I, roughly twenty percent of all national constitutions do not have preambles, and so were excluded from the sample.¹⁰¹ Our dataset thus includes over seventy percent of all preambles ever written, excluding mainly those that were unavailable in English.¹⁰²

One way to think about the interrelationships among legal texts is to analogize to biology and treat legal language as a form of genetic material. This approach is less novel than it might sound. Comparative law scholars, for example, have long studied the borrowing and transplantation of legal concepts from one country to another, tracing them back to Roman law or even earlier.¹⁰³ They also refer to “families” of law.¹⁰⁴ These metaphors suggest that we are tracing the genealogy of law, in which case two questions rise to the fore: first, what are the sources of innovation (or genetic mutation) in the pool of texts; and second, how does borrowing occur? In biology, genes can be transferred in different ways.¹⁰⁵ In most species, we can assume a good

97. See, e.g., CONSTITUTION OF AFGHANISTAN Jan. 3, 2004, pmb1. (“[o]bserving the United Nations Charter as well as the Universal Declaration of Human Rights”).

98. See, e.g., sources cited *infra* note 137.

99. For more on the project, see COMPARATIVE CONSTITUTIONS PROJECT, <http://comparativeconstitutionsproject.org> (last visited Dec. 2, 2013).

100. Data on file with authors.

101. *Id.*

102. *Id.*

103. ALAN WATSON, LEGAL TRANSPLANTS 22 (1974) (arguing that all legal rules are borrowed).

104. HEIN KOTZ & KONRAD ZWEIGERT, INTRODUCTION TO COMPARATIVE LAW 66 (2d ed. 2000) (expanding on the concept of legal families of the world).

105. JEFFREY C. POMERVILLE, ALCAMO’S FUNDAMENTALS OF MICROBIOLOGY 262–63 (9th ed. 2011) (describing vertical and horizontal gene transfer).

deal of genetic similarity between parents and children: genes are transferred “vertically” through a sequence of related individuals.¹⁰⁶ In a smaller number of species, genes are transferred “horizontally” among contemporary individuals who are in close proximity.¹⁰⁷ By analogy, constitution writing unfolds in a temporal sequence in which earlier documents can provide “genetic material” to later ones. Any given constitutional text will possess an array of “genetic” influences. Some of these will be “vertical,” in which a country borrows from its own previous constitution in writing a new one. Other influences will be horizontal, in which countries borrow from each other. If legal texts such as preambles are also, in some sense, a form of genetic material, do they tend to involve transfers across countries, within countries, or both? This Part conducts such an analysis.

To examine particular trajectories of language, we begin by identifying common phrases in constitutional preambles using N-gram analysis. N-grams are multiple word phrases of length N .¹⁰⁸ We compiled lists of the most common phrases of two, three, four and five words (2-, 3-, 4-, and 5-grams), and then culled the list for duplicates as well as phrases that lacked substantive meaning.¹⁰⁹ From this process, we generated a list of fifteen phrases most commonly found in constitutions.¹¹⁰ Several of the most common phrases are specifically socialist in nature.¹¹¹ A few are the names of international treaties mentioned in the constitutional preambles.¹¹² Others are general phrases invoking the actors in whose name the constitution is produced (e.g., God, the People, representatives) or values such as the rule of law.¹¹³

Table 3 provides descriptive frequencies of these phrases over

106. *Id.*

107. Ravi Jain, Maria C. Rivera & James A. Lake, *Horizontal Gene Transfer Among Genomes: The Complexity Hypothesis*, 96 PROC. NAT'L ACAD. SCI. U.S.A. 3801, 3804–06 (1999) (providing a theory of horizontal gene transfers).

108. Marc Damashek, *Gauging Similarity with n-Grams: Language-Independent Categorization of Text*, 267 SCI. 843, 843 (1995).

109. We decided not to “trim” the phrases of conjunctions or articles such as “the” or “a,” which may be part of certain common constitutional phrases (e.g., “we the people”). This left us with certain phrases, however, that were substantively meaningless. Thailand has eighteen constitutions, of which many include the phrase “the constitution of the kingdom of Thailand.” This phrase has six different 2-grams, so including it in the analysis would distort its presence in the corpus.

110. *See infra* Table 3.

111. *See infra* Table 3.

112. *See infra* Table 3.

113. *See infra* Table 3.

time.¹¹⁴ “We the People” is the most common phrase overall; but interestingly, this is a relatively late development.¹¹⁵ It has become the most popular phrase only in the post-World War II era of decolonization.¹¹⁶ This supplements recent research on the decline of the U.S. constitutional influence abroad, based on a study of constitutional rights.¹¹⁷ In contrast with the finding that the U.S. style of a Bill of Rights is less influential, we find that the paradigmatic phrase of the U.S. preamble has increased in popularity over time.¹¹⁸

Before 1914, constitutions were likely to be concluded under the authority of “We the Representatives of the People” (nearly ten percent of preambles), and even more likely to be produced in the “Name of God” (twenty percent of preambles).¹¹⁹ The “Representatives of the People” obviously implies a republican mode of producing constitutions; “We the People” makes much more explicit the notion that the sovereign power, the *pouvoir* constituent, is located in the people themselves.¹²⁰ One might view this development as reflecting a trend toward more direct modes of democratic governance.¹²¹

Interestingly, God suffered a loss in popularity for most of the twentieth century before staging a comeback after 1989.¹²² God’s decline corresponded with a rise in socialist phraseology, as expressed in such phrases as “working people,” “dictatorship of the proletariat,” and “communist party.”¹²³ The fall of communism seems to have triggered God’s comeback. Again, we observe that global social and political changes have a distinct impact on the contents of national constitutional texts, including in preambles.

114. See *infra* Table 3.

115. See Adam Liptak, ‘We the People’ Loses Appeal with People Around the World, N.Y. TIMES (Feb. 6, 2012), <http://www.nytimes.com/2012/02/07/us/we-the-people-loses-appeal-with-people-around-the-world.html> (discussing Law and Versteeg’s article, cited *infra* note 117).

116. *Id.*

117. David S. Law & Mila Versteeg, *The Declining Influence of the United States Constitution*, 87 N.Y.U. L. REV. 762, 762 (2012) (arguing that “other countries have, in recent decades, become increasingly unlikely to model either the rights-related provisions or the basic structural provisions of their own constitutions upon those found in the U.S. Constitution”). But see Zachary Elkins, Tom Ginsburg & James Melton, *Response: Comments on Law and Versteeg’s Declining Influence of the United States Constitution*, 87 N.Y.U. L. REV. ONLINE 11, 12 (2012) (arguing that there has been no decline in influence).

118. See *infra* Table 3.

119. See *infra* Table 3.

120. See LARRY D. KRAMER, *THE PEOPLE THEMSELVES: POPULAR CONSTITUTIONALISM AND JUDICIAL REVIEW* 85 (2005).

121. See SAMUEL P. HUNTINGTON, *THE THIRD WAVE: DEMOCRATIZATION IN THE LATE TWENTIETH CENTURY* 15 (1993) (discussing the spread of democracy over decades).

122. See *infra* Table 3.

123. See *infra* Table 3.

A good illustration of the externally directed nature of preambles is the degree to which they incorporate or reference international instruments. Frosini notes that twenty-two of the preambles of constitutions currently in force refer to the Universal Declaration of Human Rights.¹²⁴ Several African preambles mention the Charter of the Organization of African Unity.¹²⁵ The U.N. Charter, the International Covenant on Civil and Political Rights, the International Covenant on Economic and Social Rights, the Convention on the Elimination of All Forms of Discrimination Against Women, the African Charter of the Rights of Man and Peoples, and the French Declaration of the Rights of Man also appear in various preambles.¹²⁶ One recent study suggests that twenty-six of all preambles refer to an external document of some kind or another.¹²⁷ This is surely remarkable for documents that are supposed to reflect putatively national values.

In our N-gram analysis, it is noteworthy that the regional African Charter on Rights and Freedoms (twenty-four preambles) is more likely to be invoked than the Universal Declaration of Human Rights (twenty-three preambles).¹²⁸ It is also interesting that “Rule of Law” is a dominant phrase in the current era.¹²⁹ The “Rule of Law” revival is facilitated by the vagueness of the concept, making it attractive to both authoritarians and democrats alike.¹³⁰ Perhaps this explains its expansion in popularity from four percent to twenty percent of constitutions between the early and current periods of constitution-making.¹³¹ Remarkably, the overall frequency of these memes is increasing in time.¹³² This suggests that constitutions are becoming more similar to one other in terms of certain idioms.

We should make clear that we are *not* equating the adoption of similar phrases as indicating that the *meaning* of these phrases is constant across countries. Indeed, it is likely that the particular nuances and meanings attached to language vary widely depending on the context.¹³³ Meanings of terms can also change within a particular legal

124. Frosini, *supra* note 16, at 90.

125. *Id.*

126. *Id.* at 90–91.

127. Fiddler, *supra* note 59, at 28.

128. *See infra* Table 3.

129. *See infra* Table 3.

130. *See* Thomas Carothers, *The Rule of Law Revival*, 77 FOREIGN AFF. 95, 95 (1998) (questioning the purported ability of rule of law initiatives to quickly cure the problems of countries in transition).

131. *See infra* Table 3.

132. *See infra* Table 3.

133. *See* Kent Bach, *Context Dependence*, in THE CONTINUUM COMPANION TO THE

system over time.¹³⁴ Globalized terms, in other words, can have local implications, but the very use of the common terms suggests a certain amount of interdependence in drafting processes.¹³⁵ Drafters seem to consult models when they begin the process of producing a preamble.

TABLE 3: MOST POPULAR PHRASES IN CONSTITUTIONAL PREAMBLES

Phrase	First mention	Total no. (%) of preambles N=476	1789–1914 N=94	1915–1945 N=49	1946–1989 N=215	1990 & Onward N=118
We the people	United States of America 1789	70 (14.7%)	4 (4.3%)	3 (6.1%)	33 (15.4%)	30 (25.4%)
Rule of law	Bavaria 1818	52 (10.9%)	4 (4.3%)	2 (4.8%)	20 (9.3%)	26 (22%)
Rights of man	Haiti 1805	47 (10%)	1 (1%)	1 (2%)	32 (14.9%)	14 (11.9%)
Economic and Social	France 1949	43 (9%)	0	0	21 (9.8%)	16 (13.6%)
Name of god	Spain 1808	43 (9%)	19 (20.2%)	3 (6.1%)	10 (4.6%)	11 (9.3%)
We the representatives	Venezuela 1830	34 (7.1%)	9 (9.6%)	5 (10.2%)	15 (7%)	5 (4.2%)
African Charter	Guinea 1990; Benin 1990	24 (5%)	0	0	16 (7.4%)	8 (6.8%)
Exploitation of Man	Russia 1918	24 (5%)	0	5 (10.2%)	13 (6%)	6 (5.1%)
Universal Declaration of Human Rights	Rwanda 1962	23 (4.8%)	0	0	15 (7%)	7 (5.9%)
Give to ourselves	Iceland 1920	21 (4.4%)	0	2 (4.8%)	11 (5.1%)	8 (6.8%)
Principles of democracy	Portugal 1838	20 (4.2%)	1 (1%)	0	13 (6%)	6 (5.1%)
Working people	Mongolia 1924	19 (3.9%)	0	4 (8.2%)	13 (6%)	2 (1.7%)
Communist party	Romania 1938	17 (3.6%)	0	3 (6.1%)	13 (6%)	1 (0.9%)
Charter of the United	South Korea	15 (3.1%)	0	0	11 (5.1%)	3 (2.5%)

PHILOSOPHY OF LANGUAGE 153, 153 (2012).

134. See, e.g., Cass R. Sunstein, *Why Does the American Constitution Lack Social and Economic Guarantees?*, 56 SYRACUSE L. REV. 1, 10–11 (2005) (highlighting how the meaning of constitutional text changes over time).

135. See VICKI C. JACKSON, CONSTITUTIONAL ENGAGEMENT IN A TRANSNATIONAL ERA 270–80 (2010) (noting that globalization can be expected to yield both convergences and divergences among constitutions).

Nations	1948					
Dictatorship of the proletariat	Russia 1918	7 (1.4%)	0	3 (6.1%)	4 (1.9%)	0

The existence of certain common phrases in preambles implies that there is more interdependence among constitutions than the national expression thesis might suggest. If every nation is invoking the same values, then constitutions may be less local than otherwise assumed. Indeed, there is some evidence to suggest that preamble writing, for some countries at least, has always been an internationally oriented act. Chile's 1822 Constitution, for example, explicitly names the United States as a model in its preamble.¹³⁶ Socialist constitutions often had this feature, expressing thanks for the leadership of the Union of Soviet Socialist Republics or solidarity with other socialist nations.¹³⁷ Constitution-makers thus use the preamble to communicate their attitudes toward particular foreign countries.

This reminds us that constitutions are statements not only on the national plane, but also on the international plane.¹³⁸ The contents of preambles in an era of global interdependence may be as likely to be addressed to outsiders as to locals.¹³⁹ For example, Beau Breslin notes that many Eastern European preambles seem to be directed not only to the local polity but also to the place of the sovereign community in the broader international order.¹⁴⁰ In turn, if constitutional texts are internationally directed statements, international actors may have something to say about the drafting choices.

136. CONSTITUCIÓN POLÍTICA DEL ESTADO DE CHILE, [CONSTITUTION] (1822), pmb. (referring to drafters having before them "the better models . . . principally those of the classic country of liberty, the United States").

137. CONSTITUTION OF THE POLISH PEOPLE'S REPUBLIC July 22, 1952, pmb. (Pol.) (referring to the leading role of the working class based "on the historic experience of victorious socialist construction in the Union of Soviet Socialist Republics, the first State of workers and peasants"); XIANFA pmb. (1954) (China) ("China has already built an indestructible friendship with the great Union of Soviet Socialist Republics and the People's Democracies; and the friendship between our people and peace-loving people in all other countries is growing day by day. Such friendship will be constantly strengthened and broadened."); CONSTITUTION OF THE PEOPLE'S REPUBLIC OF BULGARIA LA RÉPUBLIQUE POPULAIRE DE BULGARIE May 18, 1971, pmb. (Bulg.) (noting "cooperation and mutual assistance with the Union of Soviet Socialist Republics and the other countries of the socialist community"); CONSTITUTION OF THE CZECHOSLOVAK REPUBLIC June 9, 1948, pmb. (referring to alliance with the Union of Soviet Socialist Republics); CONSTITUTION OF THE RUMANIAN PEOPLE'S REPUBLIC Sept. 24, 1952, pmb. (referring to alliance with the Union of Soviet Socialist Republics).

139. JACKSON, *supra* note 135, at 255.

139. BRESLIN, *supra* note 7, at 60 (examining the functions of constitutional texts, which includes the conveyance of aspirations).

140. *Id.*

One telling example here concerned the Constitution of Hungary that took effect in early 2012.¹⁴¹ A nationalist party that sought to consolidate its power produced this document, and many criticized the constitution as reflecting illiberal values.¹⁴² The constitution includes a nationalist preamble in the name of ethnic Hungarians everywhere (not simply citizens of the state, whether Hungarian or not).¹⁴³ The Venice Commission of the Council of Europe, an international body that monitors the progress of democracy and law in the region, specifically objected to the preamble of Hungary's Constitution.¹⁴⁴ The Commission acknowledged that preambles are political declarations and that the Hungarian text drew on aspects of Hungarian tradition and history.¹⁴⁵ The Commission also noted, however, that the evocation of the "Hungarian nation" as the sovereign authority was problematic, as it read this language in conjunction with other language as purporting to speak on behalf of Hungarians everywhere.¹⁴⁶ It suggested that such a broad reading might lead to problems with neighboring states with large populations of ethnic Hungarians.¹⁴⁷ The preamble, it seems, was *too* nationalistic for international tastes.¹⁴⁸

This incident suggests that the preambles are in fact internationally embedded documents. They are designed to express the values of the local people, but only within certain disciplined limits. Even the most quintessentially local parts of constitutions then speak in an international idiom, though they may do so to express highly nationalistic sentiments.

IV. SOURCES OF INNOVATION

Having established the internationally embedded nature of preambles, we now wish to examine the circumstances under which countries choose to innovate in their preambles. We distinguish in this section between "vertical innovation," referring to terms used for the first time

141. See A MAGYAR KÖZTÁRSASÁG ALKOTMÁNYA [CONSTITUTION OF THE REPUBLIC OF HUNGARY].

142. See, e.g., Paul Krugman, 1984, *Hungarian Edition*, N.Y. TIMES (June 17, 2013, 11:45 AM), <http://krugman.blogs.nytimes.com/2013/06/17/1984-hungarian-edition>.

143. A MAGYAR KÖZTÁRSASÁG ALKOTMÁNYA pmbl.

144. European Comm'n for Democracy Through Law (Venice Comm'n), *Opinion on the New Constitution of Hungary*, 87th plen. sess., Opinion No. 621/2011, para. 149 (June 20, 2011) (citing the preamble as a cause for questions and a reason for objection due to the "relevance of the Preamble for the Constitution's interpretation and some potentially problematic statements and terms contained therein").

145. *Id.* para. 32.

146. *Id.* para. 39.

147. *Id.*

148. *Id.* para. 40.

in a country's sequence of constitutions, and "horizontal innovation," referring to terms used for the first time among the entire set of countries with constitutional preambles. To conduct the analysis, we used a method that compares the vocabularies of different preambles. We first calculated the Term Frequency Inverse Document Frequency (tf-idf) score of each term in the entire corpus of preambles. Tf-idf is a standard statistic in computational linguistics that reflects the importance of any given word to a document in a larger set of documents.¹⁴⁹ The tf-idf value increases with the number of times a word appears in the document, but is offset by the frequency of the word in the broader corpus, to control for the presence of commonly used words.¹⁵⁰ For example, if a word is frequently used in a particular preamble but not in other preambles (such as the name of the country), that word would have a high tf-idf score.¹⁵¹ A term like "constitution," which probably appears in most preambles, would have a lower score.¹⁵² Once we calculated individual tf-idf scores for each term, we discarded terms that had less than the mean tf-idf value. This produced a "vocabulary" with 1,605 terms likely to be distinctive within the entire set of preambles.

A. Vertical Innovation

Next, for a given constitution, we computed the number of unique terms in the preamble that were also in the vocabulary.¹⁵³ We then produced two "vertical innovation scores": one expressing the fraction of unique terms of a constitution that were not present among the unique terms of the immediately preceding constitution in place in that country; and another that expressed the same fraction that were new relative to all constitutions in a country's history. This technique provides us with an indicator of which preambles stand out as marking the sharpest breaks from previous ones in a country's history. Using a biological metaphor, we might conceive of these innovations as influential mutations within a single species. Note again that this method examines what we might call "vertical innovation" in a country's history rather than the "horizontal innovation," which we discuss below, that occurs within the universe of preambles of *other*

149. See, e.g., MICHAEL W. BERRY & JACOB KOGAN, TEXT MINING: APPLICATIONS AND THEORY 11–12 (2010) (describing term frequency).

150. CHRISTOPHER D. MANNING, PRABHAKAR RAGHAVAN & HINRICH SCHÜTZE, INTRODUCTION TO INFORMATION RETRIEVAL 118–19 (2008).

151. *Id.*

152. *Id.*

153. "Vocabulary" is an analysis-specific set of terms found in a corpus. See, e.g., BERRY & KOGAN, *supra* note 149, at 4 (describing vocabulary).

countries.

The tf-idf scores tell us that virtually all preambles in a sequence of a given country's constitutions demonstrate *some* level of vertical innovation. We found only eight that did not introduce new terms from the immediately preceding preamble.¹⁵⁴ On the other hand, 178 preambles did not share *any* unique words with the preceding preamble and so had an innovation score of 1. The figures are comparable for innovation compared with the entire sequence in a country's history. (Some, but not all, of these preambles were found in a country's first constitution, which by definition have an innovation score of 1.) In other words, preambles do tend to mark breaks with the past: they are loci of innovative expression by constitutional drafters. The mean innovation score for a preamble relative to its predecessor is 0.78; relative to all earlier preambles in the country's history, the mean innovation score is 0.71.

But there is variation in the *degree* to which preambles innovate. To consider an example, China has had eleven operative constitutions since the Chinese revolution of 1911.¹⁵⁵ The establishment of the People's Republic in 1950, however, marked a sharp political break and led to more innovation relative to earlier constitutions. The preamble to the 1954 Constitution shared few unique words with that of the 1947 Constitution, which is hardly surprising given that it came after the conclusion of the country's civil war.¹⁵⁶ But the preambles of every Chinese Constitution from 1954 through 1982 (a total of four) have mentioned the terms proletariat, revolution, and socialism.¹⁵⁷ The 1954 Constitution mentioned the friendship of the Soviet Union, perhaps a necessary step in the early 1950s but anachronistic after the Sino-Soviet split of the early 1960s.¹⁵⁸ The 1975 Constitution dropped this reference and added specific mention of the Cultural Revolution.¹⁵⁹ The

154. These were CONSTITUTION OF SIERRA LEONE; CONSTITUTION OF THE REPUBLIC OF VANUATU of 1980 (as amended); CONSTITUTION OF EL SALVADOR of 1886; CONSTITUTION OF NIGERIA (1999); 1944 SYNTAGMA [SYN.] [CONSTITUTION] (Greece); CONSTITUTION OF MONTENEGRO; 1911 SYNTAGMA [SYN.] [CONSTITUTION] (Greece) (reinstated 1935); CONSTITUTION OF NIGERIA (1989).

155. ANDREW J. NATHAN, CHINESE DEMOCRACY 107–10 (1986) (summarizing rights provisions in nine texts); *see also* ELKINS ET AL., NATIONAL CONSTITUTIONS, *supra* note 9, at 216 (listing dates).

156. It had an innovation score of 0.95 relative to the previous Chinese Constitution. Data on file with authors.

157. *See* XIANFA pmb. (1975) (China); XIANFA pmb. (1978) (China); XIANFA pmb. (1981) (China).

158. *See* LORENZ M. LÜTHI, THE SINO-SOVIET SPLIT: COLD WAR IN THE COMMUNIST WORLD 31–33 (2008) (summarizing the relationship between Mao and Stalin during the 1950s).

159. XIANFA pmb. (1975) (China).

1978 Constitution retained that reference and added language about the liberation of Taiwan.¹⁶⁰ By 1982, the Cultural Revolution had come to be viewed as a major policy error, and so the reference was deleted, but the language about the liberation of Taiwan remained.¹⁶¹ The 1982 Constitution also sought to emphasize China's multiethnic nature, and it criticized "Han chauvinism."¹⁶² Each of the four constitutions of the People's Republic of China thus featured innovations in response to major domestic policy changes; each also retained some continuity with the past.

Are there particular factors that lead countries to make sharper breaks from earlier constitutional text? To explore this question, we produced a set of multivariate ordinary least-squares regressions in which the dependent variable is the degree of innovation, as captured in our normalized tf-idf scores. We consider two different forms of innovation: innovation relative to the previous constitution in the country's sequence (columns 1 and 2 of Figure 1), and innovation relative to all the country's constitutions (columns 3 and 4 of Figure 1). To determine if innovations correlated with international factors, we included as independent variables the average levels of innovation for all countries globally and regionally in the year before the constitution's enactment.¹⁶³ In other words, we are testing whether the levels of innovation within nation-states are globally or regionally contingent. For independent variables, we examine factors that mark "shocks" in a country's constitutional history.¹⁶⁴ These include external crises, such as defeat in war and financial crises.¹⁶⁵ As control factors, we included the year, the age of the state, and, in unreported specifications, democracy and the level of wealth.¹⁶⁶

160. XIANFA pmb. (1978) (China).

161. XIANFA pmb. (1982) (China).

162. *Id.*

163. In a robustness check, we experimented with lags of two to five years as well, with substantively similar results.

164. See ELKINS ET AL., NATIONAL CONSTITUTIONS, *supra* note 9, at 104–19 (contrasting design and environmental factors in risks of constitutional demise).

165. These variables are drawn from Cross-National Time-Series Data Archive. CROSS-NAT'L TIME-SERIES DATA ARCHIVE, <http://www.databanks.sitehosting.net/Default.htm> (last visited Dec. 4, 2013).

166. See Paul R. Hensel & Sara McLaughlin Mitchell, ISSUE CORRELATES OF WAR (ICOW) PROJECT (Feb. 8, 2013), <http://www.paulhensel.org/icow.html> (drawing the state age variable from the colonial history data set). We experimented with various measures of democracy. See Ted Robert Gurr, *Polity II: Political Structures and Regime Change*, ICPSR (Jan. 18, 2006), <http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/9263?q=polity+ii&searchSource=icpsr-landing> (extracting data from the POLITY database); James Melton, Stephen Meserve & Daniel Perstein, UNIFIED DEMOCRACY SCORES (Jan. 4, 2011), <http://www.unified-democracy-scores.org> (using a set of measures that aggregates a scale of democracy and accounts for

The results, presented in Figure 1, suggest that the later the constitution is written, the less innovation, which is of course logical because there are more “available” words earlier in a country’s history of preambles, but the result does not approach statistical significance.¹⁶⁷ Older states also innovate less, perhaps because political idiom is already well established.¹⁶⁸ Only some crises predict statistically significant levels of innovation; for instance, defeat in war is less likely to prompt innovation, while economic crisis is associated with higher levels of innovation.¹⁶⁹

Notably, the largest predictors of innovation, both relative to the immediately preceding constitution and to all previous constitutions, were the average levels of the same type of innovation found around the globe and region in the immediately prior year.¹⁷⁰

The story is a simple one: countries innovate when neighbors innovate, and innovations come in global waves. Again using a biological metaphor, this suggests that the local and global ecosystems are an important source of genetic mutation. Disruptions in the ecosystem tend to lead to efforts to try new things, use new language, and develop new political vocabularies.

FIGURE 1: OLS REGRESSION ANALYSIS PREDICTING VERTICAL INNOVATION

Variables	Innovation relative to last constitution		Innovation relative to all previous constitutions	
	(1)	(2)	(3)	(4)
Year	-0.000518 (0.000623)	-0.000411 (0.000481)	-0.000379 (0.000715)	-0.000431 (0.000526)
State age	-0.000168* (9.63e-05)	-9.51e-05 (7.83e-05)	-0.000347*** (0.000110)	-6.67e-05 (8.98e-05)
Economic crisis	0.109** (0.0511)	0.0324 (0.0416)	0.129** (0.0579)	0.0406 (0.0455)
Defeat in war	-0.156* (0.0892)	-0.119* (0.0720)	-0.174* (0.101)	-0.151* (0.0789)
Lagged global avg. innovation	0.994*** (0.166)		0.923*** (0.148)	
Lagged regional avg. innovation		0.972*** (0.0751)		0.959*** (0.0679)
Constant	1.024 (1.289)	0.840 (0.968)	0.816 (1.464)	0.885 (1.054)

estimates of measurement uncertainty).

167. See *infra* Figure 1.

168. See *infra* Figure 1.

169. See *infra* Figure 1.

170. When both global and regional effects are included, the regional effects are consistently the strongest, but the two variables are collinear, so we do not report the results here.

Observations	222	222	222	222
R-squared	0.202	0.476	0.239	0.533

(Standard errors in parentheses)

*** p<0.01, ** p<0.05, * p<0.1

B. *Horizontal Innovation*

Next, we examine if there is what we might call “horizontal” innovation. Returning to the biological analogy, is there horizontal gene transfer across constitutional texts? That is, do constitutions, in a particular time and place, borrow from those in other countries available around the same time? To determine this, we examine the tf-idf scores for individual preambles relative to those of other constitutions in force in the year in which the preamble was adopted.¹⁷¹ Table 4 below shows the most and least innovative constitutional preambles using this method.

TABLE 4: MOST AND LEAST HORIZONTALLY INNOVATIVE PREAMBLES

Rank	Most Innovative (score in parentheses)	Least Innovative (score in parentheses)
1	Soviet Union 1936 (7.14)	Greece 1975 (.01)
2	Poland 1921 (5.7)	Poland 1992 (.02)
3	Iran 1989 (4.97)	Sierra Leone 1991 (.02)
4	Colombia 1886 (4)	Trinidad & Tobago 1962 (.02)
5	Bavaria 1808 (3.78)	Greece 1952 (.02)
6	Philippines 1935 (3.71)	Kiribati 1979 (.03)
7	France 1848 (3.6)	Brunei 1959 (.03)
8	Egypt 1923 (3.58)	Mongolia 1992 (.03)
9	Lithuania 1938 (3.08)	Uganda 1971 (.03)
10	Soviet Union 1977 (2.63)	Guyana 1980 (.03)

We believe these patterns make intuitive sense and are consistent with our other findings.¹⁷² Innovation in the preamble seems to be a feature of highly ideological constitutions: the Soviet documents of 1936 and 1977, and Iran’s revolutionary constitution of 1989 score high in terms of innovation.¹⁷³ The countries that tend not to innovate relative to their contemporaries are either small (Guyana and the island nations) or new democracies like Greece in 1975, and Poland and

171. Again, we experiment with various lags and find substantively similar results, with some exceptions.

172. See discussion *supra* Part III.

173. See *supra* Table 4.

Mongolia in 1992.¹⁷⁴ Sierra Leone's preamble of 1991 has low scores in terms of both horizontal and vertical innovation, that is, new words relative to other countries' constitutions and to the previous Sierra Leonean constitution.¹⁷⁵ Unreported regression analysis also suggests that older states have marginally higher propensities to introduce new words into the global corpus.¹⁷⁶ New states, by implication, seem likelier to copy from existing models. This seems consistent with intuitions: new states are engaged in complex forms of signaling to the outside world, and hence seem likely to wish to conform to global norms.¹⁷⁷

As with the question of vertical innovation, we can use regression analysis to identify the extent to which countries innovate "horizontally," that is, relative to other countries in the system. We again use multivariate ordinary least regressions in which the dependent variable is the degree of innovation, as captured in our normalized tf-idf scores, but this time focus on the degree of innovation relative to other constitutions in force at a given time.¹⁷⁸ The variable named "cross-innovation" captures the fraction of unique terms in a preamble that did not appear in any other preamble in force at the same time (or at various specified lags). Again, we control for time, age of the state, and external shocks of financial crisis and defeat in war.¹⁷⁹

We present the results in Figure 2.¹⁸⁰ The first column represents the level of cross-innovation in the same year the preamble is adopted; the other columns represent innovation relative to constitutions in force one, five, and ten years prior.¹⁸¹ As with vertical innovation, we find that the later the constitution is written, the less innovation it contains; in these models, the results for "year" are statistically significant.¹⁸² The only other results that stand out demonstrate that average levels of cross-innovation are correlated with innovation in individual

174. Greece is consistently at the top of the list of "least innovative" regardless of lags, but this is an artifact of its brevity: the preamble is only eleven words long. See 1975 SYNTAGMA [SYN.] [CONSTITUTION] pmb1. (Greece) ("In the name of the Holy and Consubstantial and Indivisible Trinity.").

175. Data on file with authors.

176. *Id.*

177. See Tom Ginsburg, Svitlana Chernykh & Zachary Elkins, *Commitment and Diffusion: How and Why National Constitutions Incorporate International Law*, 2008 U. ILL. L. REV. 201, 201-03 (2008) (arguing that new democracies are more likely to incorporate international law).

178. See discussion *supra* Part IV.A. (analyzing vertical innovation).

179. See discussion *supra* Part IV.A.

180. See *infra* Figure 2.

181. See *infra* Figure 2.

182. See *infra* Figure 2.

countries.¹⁸³ That is, the probability that a country will introduce new terms into the global discourse of preambles is correlated with the probability that other countries will do the same.¹⁸⁴ This result holds at various lags of average levels of cross-innovation: one-year, five-year, and ten-year averages.¹⁸⁵ We again observe that innovation is temporally clustered and likely to appear in particular periods.¹⁸⁶

By implication, this suggests that there are long periods in which innovation is *unlikely* to occur. Preambular innovation is something like punctuated equilibrium within an ecosystem.¹⁸⁷ For long periods of stasis, countries borrow from one another and restrict their language to a set of common terms and phrases. Then, at particular junctures (likely associated with global conflicts), the equilibrium becomes disrupted and a period of innovation ensues. This eventually generates the “new normal” in terms of the set of language that constitutional drafters use.

Figures 3A and 3B illustrate the patterns by plotting average levels of innovation over time.¹⁸⁸ For vertical innovation, which captures the extent to which countries introduce new terms into their own preambles, the high points seem to occur in the period after World War I and between 1948 and the mid-1960s.¹⁸⁹ For horizontal innovation, which captures innovation relative to other countries, the mid-1960s are also a high point.¹⁹⁰ Note that the overall levels of innovation are quite low—as a matter of logic, it is rarer for a country to introduce a new term globally than it is for a country to introduce a new term within its own legal system. Every global innovation is a local innovation, though the converse is not the case.

183. See *infra* Figure 2.

184. See *infra* Figure 2.

185. See *infra* Figure 2.

186. See *infra* Figure 2.

187. Stephen Jay Gould & Niles Eldredge, *Punctuated Equilibria: The Tempo and Mode of Evolution Reconsidered*, 3 PALEOBIOLOGY 115, 115 (1977) (advancing the punctuated equilibrium model of biological evolution).

188. The figures begin in 1840 because there are very high levels of innovation in the earlier period, which biases the presentation.

189. See *infra* Figure 3A.

190. See *infra* Figure 3B.

FIGURE 2: OLS REGRESSION ANALYSIS PREDICTING HORIZONTAL INNOVATION

Variables	Cross-innovation	Cross-innovation (relative to all constitutions one year prior)	Cross-innovation (relative to all constitutions five years prior)	Cross-innovation (relative to all constitutions ten years prior)
Year	-0.00124 (0.000930)	-0.00537*** (0.00121)	-0.00397*** (0.00129)	-0.00371*** (0.00130)
State age	0.000176 (0.000140)	0.000128 (0.000189)	0.000119 (0.000186)	0.000177 (0.000186)
Economic crisis	0.0596 (0.0749)	0.0298 (0.102)	0.0536 (0.0993)	0.0761 (0.0988)
Defeat in war	-0.0440 (0.131)	-0.170 (0.175)	-0.142 (0.173)	-0.155 (0.172)
Global avg. level of cross-innovation (using same measure as dependent variable)	1.042*** (0.0751)	0.244*** (0.0777)	0.967*** (0.232)	1.951*** (0.448)
Constant	2.425 (1.853)	10.89*** (2.398)	8.104*** (2.564)	7.533*** (2.599)
Observations	222	222	222	222
R-squared	0.560	0.204	0.230	0.235

(Standard errors in parentheses)
 *** p<0.01, ** p<0.05, * p<0.1

FIGURE 3A: AVERAGE LEVEL OF VERTICAL INNOVATION OVER TIME

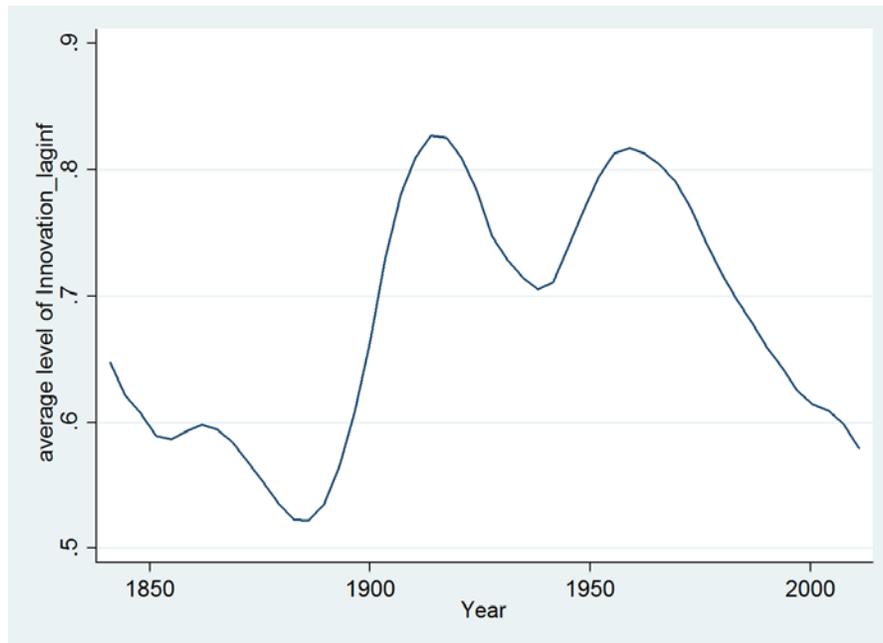


FIGURE 3B: AVERAGE LEVEL OF HORIZONTAL INNOVATION OVER TIME



V. CONCLUSION

The journalist Bill Moyers recently described “We the People” as the most powerful political statement in the history of the political literature.¹⁹¹ Preambles embody the constitutional project in which “we the people” articulate the fundamental principles under which we shall be governed.¹⁹² Some might view the preamble as the local part of the document: it is the place where drafters recount the country’s history, ideological dispositions, and most fundamental values.¹⁹³ Yet, despite this widely understood function of constitutional preambles, they frequently seem to speak in an international idiom. They often adopt terms or memes from other constitutions, they frequently invoke

191. Jacob Wheeler, *Bill Moyers: We Make Progress Through Collaboration, Not Competition*, UPTAKE (June 14, 2011), <http://www.theuptake.org/2011/06/14/bill-moyers-we-make-progress-through-collaboration-not-competition>; see also Andrea Morisette Grazzini, *What Does the American Phrase “We the People” Mean?*, TED CONVERSATIONS, http://www.ted.com/conversations/2960/what_does_the_american_phrase.html (last visited Dec. 4, 2013) (discussing the meaning of the phrase “We the People”).

192. Levinson, *supra* note 14, at 158; see also Mark Tushnet, *The Possibilities of Comparative Constitutional Law*, 108 YALE L.J. 1225, 1269–85 (1999) (discussing expressivism).

193. See Vicki C. Jackson, *Methodological Challenges in Comparative Constitutional Law*, 28 PENN ST. INT’L L. REV. 319, 325 (2010) (describing expressions of national identity in the preambles of several countries).

international treaties, and they sometimes contain language that amounts to foreign policy statements.

To be sure, preambles often involve political innovation as well.¹⁹⁴ More ideologically oriented constitutions will tend to use new language not found in other contemporary constitutional texts or other constitutions in a country's sequence. Older states tend to be less innovative relative to earlier constitutions. Yet, even the innovations that do occur are temporally clustered. The greatest predictor of innovation within a country's sequence of constitutions is the degree of innovation found in constitutions from *other* countries drafted around the same time. The broad pattern we observe is one of stasis, followed by periods of change. These periods are determined globally, and not simply by domestic developments. Preambles, then, are internationally embedded texts, whose production is related to their peers in time and place.

Finally, we note that the new tools introduced in this Article might provide insights in other areas of law. One might examine, for example, a single area of legislation across jurisdictions to understand what phrases and terms are most common and how patterns change over time. International treaties, such as bilateral investment treaties, are also ripe for analytic methods such as those utilized here. Law is language, and the new tools of computational linguistics promise to unearth some surprising patterns that might not be visible to the naked eye.

APPENDIX: SENTIMENT ANALYSIS OF CONSTITUTIONS

The algorithm takes two inputs. The first is a set of words named labMT that is useful for the computation of the happiness of each word, and thus for the computation of the happiness score of the entire text.¹⁹⁵ More precisely, the labMT 1.0 is a set of 10,222 ranked words based on the 5,000 most frequently used words from Twitter, Google Books, music lyrics, and the New York Times.¹⁹⁶ The valence or happiness ranking of these words was obtained from humans through the Amazon's Mechanical Turk.¹⁹⁷ The ranking of each word is a number between 1 and 9, with 1 denoting extremely negative feeling and 9

194. See discussion *supra* Part IV (discussing political innovation).

195. Peter Sheridan Dodds, *Language Assessment by Mechanical Turk 1.0*, <http://www.plosone.org/article/fetchSingleRepresentation.action?uri=info:doi/10.1371/journal.pone.0026752.s001> (last visited Dec. 4, 2013).

196. HEDONOMETER.ORG, <http://hedonometer.org/about.html> (last visited Dec. 4, 2013) (created by Peter Dodds et al.).

197. See *id.*

denoting extremely positive feeling. We note that we have no information about the number or nationality of the people that ranked the words, which might be useful for our particular application.

We denote $h(w)$, the estimate of average happiness for each word w , in the set of labMT. We can use different subsets of labMT to conclude and highlight different aspects of the sentiment of a text. We define the exclusion parameter ΔH that can take values between 0 and 4 and identify the words used in computing the sentiment score of the texts. Specifically, we are going to exclude from the computation every word w in labMT such that $5 - \Delta H < h(w) < 5 + \Delta H$. Here, we used for the computations four different values of ΔH ; $\Delta H = 0, 1, 2,$ and 3 . Using this approach reduces the size of the set of words used from labMT from 10,222 to 3,731 (for $\Delta H = 1$), then to 1,008 ($\Delta H = 2$), and finally to 77 ($\Delta H = 3$). Also, instead of using the exclusion parameter, we could use a specific subset of the labMT to view the results from a different “aspect.” For example, by restricting the analysis to words that have a ranking between 7 and 9, we would highlight the positive “aspect” of a text.

We preprocessed the texts of our data set C , and we computed the happiness ranking of each constitutional preamble c in the set of C ($hf;avg(c)$) using the frequency of the words as follows:

1. Create the set of words $W(c)$ that are in the preamble c .
2. Compute the frequency $fc(w)$ for each word w in c .
3. We define $N(c)$ as the set of words that are both in c and in labMT:

$$N(c) = W(c) \cap \text{labMT}.$$
4. For each word w in $N(c)$ we have a rank $h(w)$.
5. The ranking of the constitutional preamble c can then be computed by: $hf;avg(c) = \frac{\sum_{w \in N(c)} h(w)fc(w)}{\sum_{z \in N(c)} fc(z)}$

Moreover, we used a different approach for ranking the average happiness ($hTf_Idf;avg(c)$) based on the tf-idf¹⁹⁸ (instead of using the raw frequencies we used the tf-idf for each word). Specifically, we let $|C|$ denote the size of our data set—the number of constitutional preambles. We also let $|C_w|$ denote the number of constitutional preambles that contain the word w . Moreover, we let $f^m(c)$ denote the maximum frequency we have on constitutional preamble c over all words w that belong to $N(c)$ ($f^m(c) = \max_{w \in N(c)} fc(w)$). The computation of the tf-idf is then: $tf-idf_c(w) = [fc(w) / f^m(c)] \times \log [|C| / |C_w|]$. Finally, to compute the total average score of the text, we multiply each term tf-

¹⁹⁸ Term Frequency Inverse Document Frequency (tf-idf) is a standard statistic in computational linguistics that reflects the importance of any given word to a document in a larger set of documents. See *supra* Part IV; BERRY & KOGAN, *supra* note 149.

$\text{idf}_c(w)$ with the corresponding $h(w)$, and we normalize through the summation of these values over all words.

Readers with comments should address them to:

Professor Tom Ginsburg
tginsburg@uchicago.edu

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