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ALL? AMENDMENT CULTURES AND THE CHALLENGES OF
MEASURING AMENDMENT DIFFICULTY

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Does the Constitutional Amendment Rule Matter at All?

Amendment Cultures and the Challenges of Measuring Amendment Difficulty

Tom Ginsburg & James Melton¹

March 11, 2014

It is often asserted that the United States' Constitution is the world's most difficult to amend.² Depending on one's normative perspective, this fact is either seen as a reflection of the Constitution's genius and a key to its endurance, or as a barrier to modernization.³ But virtually all observers agree on the basic fact of difficulty. The question is: how do we really know this? Is it because the constitution has been amended infrequently over a long period? By that metric, the Constitution of Japan of 1946, which has never been amended despite occasional proposals to do so, should rank as the world's most difficult. Is it because the U.S. process of amendment involves multiple steps with high thresholds of agreement? It isn't clear that Article V scores *highest* on this metric, even if casual observation makes it seem as if the process is difficult.

Determining which constitutions are flexible and which are not is an important question. Flexibility creates the conditions for constitutional stability. As noted by Alexander Hamilton, the ability to remedy defects and unintended consequences of a constitutional text can make constitutions more enduring.⁴ As political practices change over time, adjustments to the

¹ Leo Spitz Professor of International Law, University of Chicago Law School; Lecturer in Comparative Politics, University College London. Thanks to Carlo Fusaro, Tania Groppi, Aziz Huq, David Law, Heinz Klug, Nicola Lupo, Amy Myrick, Bjorn-Erik Rasch, Daria Roithmayr, Kim Lane Scheppelle, Mila Versteeg, Emily Zackin, and audiences at the 2013 Law and Society Association meeting, the 2014 meeting of the Association of American Law Schools, and the University of Wisconsin Madison for helpful comments.

² Donald Lutz, "Toward a Theory of Constitutional Amendment." *The American Political Science Review* 88(2):355-370 (1994); Dieter Grimm, Types of Constitutions, in Michel Rosenfeld and Andras Sajó, eds., *Oxford Handbook of Comparative Constitutional Law*, 98-132 (2012), at 111.

³ See, e.g., John McGinnis and Michael B. Rappaport, *ORIGINALISM AND THE GOOD CONSTITUTION* (2013) (supermajorities key to good governance); Sanford Levinson, *OUR UNDEMOCRATIC CONSTITUTION* (2006).

⁴ Federalist #85. See also Elkins, Zachary, Tom Ginsburg, and James Melton. *The Endurance of National Constitutions*. Cambridge University Press (2009).

constitutional text keep it aligned with current practices and help ensure its continued relevance. Amendments give the current citizenry a say in how they are governed., providing a mechanism for each generation of citizens to consent to their constitution's edicts, potentially generating greater attachment to the text, a critical requirement for the constitution to limit government effectively.⁵ In sum, a flexible constitution should last longer and play a more important role in governance than one that does not.

However, measuring flexibility presents tricky methodological issues. There have been several valiant efforts to try to tackle this measurement challenge. This article elaborates on the challenge and highlights the methodological tradeoffs involved. We also explain why several proposed solutions—including our own in earlier work—, have flaws. We find that the various metrics of amendment difficulty offered in the literature are poorly correlated, suggesting potential validity problems. This illustrates a general challenge of institutional accounts of constitutional behavior. Institutions surely matter, but institutional explanations are, like all explanations, always partial. For some matters, behavior may be more driven by political or social factors that can overcome the powerful force of institutional incentives. We argue that amendment difficulty is an example of just such a matter.

As an alternative theory of amendment difficulty, we articulate the idea of an *amendment culture*, which we argue is implicit in many accounts of constitutionalism more generally. Cultural explanations have been out of fashion in the social sciences for some time, in part because culture is difficult to measure and for too long was treated as a residual explanation for phenomena that could not be accounted for otherwise. We seek to be a bit more rigorous. Drawing on data from the Comparative Constitutions Project (CCP), we develop a simple indicator of amendment culture and show empirically that this does a better job of explaining observed patterns of amendment within constitutional systems than do any of the institutional indices or variables on offer. Our article thus offers both a critique of the existing literature and a way toward understanding why constitutional systems vary in their rates of amendment.

I. What is Constitutional Flexibility and Why is it Important?

Central to many notions of constitutionalism is the idea that some rules are more entrenched, and hence of a higher order, than others. This is the rationale underlying the designation of special procedures for amending constitutions that differ from the ordinary

⁵ Weingast, Barry. "The Political Foundations of Democracy and the Rule of Law." *American Political Science Review*. 245-263 (1997) and Elkins et al. (2009).

legislative process. Changing the constitution may require more steps, involve more actors, have higher vote thresholds, or all of the above. As a result, constitutions are harder to change than ordinary legislation and so can play their function of enhancing stability in the making of law and operation of government. Entrenchment is at the heart of constitutional stability.

Yet we live in a time in which the rate of social and technological change is high and likely to continue to accelerate. This may put great pressure on constitutional stability, which is at the very core of the constitutional idea. Rules endure as long as they are useful, and so naturally bear some relation with the underlying conditions of society. If society changes dramatically, the rules may become brittle and out of date, leading to pressure to adopt new rules through constitutional amendment, reinterpretation, or replacement.⁶

This observation has normative implications for constitutional design. Constitutions adjust through two primary mechanisms, formal amendment and informal interpretation. If demand for adjustment is going to increase, it might be advisable to draft constitutions that have more flexible amendment provisions so as to allow more formal change. For our purposes, then, flexibility refers to the ease of formal amendment provisions in a constitutional text.

Intuitively, observed rates of amendment should reflect the interaction of supply and demand. Demand will reflect (generally unobservable) factors like the degree to which the current constitution is out of sync with society, and the rate of social change. Supply, in our conception, has two components: flexibility (again, of the formal structure), and amendment culture.⁷

⁶ See Daria Roithmayr et al., *Should Law Keep Pace with Society?* Available at www.pnas.org/cgi/doi/10.1073/pnas.0709640104 (last accessed March 5, 2014).

⁷ Another factor is the availability of substitutes. It is a commonplace to contrast formal constitutional amendment with informal amendment. The United States Constitution, to return to a familiar example, is difficult to amend, and so judges have stepped in to ensure the constitutional order adjusts over time. Formal and informal amendments are often treated as perfect substitutes; but of course some changes cannot be undertaken by the judiciary or other actors. Further, there may be a culture of resistance to or acceptance of judicial lawmaking that itself parallels the amendment culture. In other words, it is possible to have a culture of frequent amendment *and* judicial lawmaking, as well as a culture in which neither is found. India might be an example of the former dynamic; Japan an example of the latter.

Along with our co-author Zachary Elkins, we have celebrated the virtues of what we might call statutory constitutions: those with flexible amendment thresholds that are fairly detailed.⁸ The constitutions of India, Mexico, and Brazil, to take three prominent examples, are amended nearly every year. Such constitutions have the virtue of being frequently changed through internal mechanisms, avoiding the more costly route of a total replacement.

Globally, constitutional amendment is very frequent. Figure 1 below shows, in the top panel, the number of new constitutions passed in any given year. Roughly five countries per year are writing a new constitution, but many more are engaged in amendment, as shown in the bottom panel. The number of constitutional amendments promulgated around the world has risen steadily since 1950. At present, approximately 30 constitutions are amended each year.⁹

--Figure 1 here--

II. Theoretical Explanations of Flexibility

One of the drivers of the increase in constitutional amendments, illustrated in figure 1, is decolonization. Many new countries with constitutions were created in the 1960s and so the absolute number of texts that could potentially be amended became much larger after World War II. However, this does not explain the continued increases in the 1970s and 1980s. We do not know whether these continued increases are the result of greater secular pressures for change, changes in amendment procedures to make constitutions more flexible, or the introduction of constitutions in places and times that are somehow more open to constitutional amendment. This section focuses especially on the latter two stories, which are difficult to sort out owing to methodological difficulties of measuring amendment ease cross-nationally.¹⁰ After

⁸ The Endurance of National Constitutions 89, 211 (2009). See also Mila Versteeg and Emily Zackin, *American Constitutional Exceptionalism Revisited*, *University of Chicago Law Review* (2014).

⁹ One way to measure the frequency of constitutional change is to consider both replacements of constitutions and amendments as modifications of the old order. For all countries since 1789, the average number of years between constitutional events in Western Europe & North America is 8.27 years. Comparable figures for other regions, in descending order, are: Oceania 8.2; East Asia 8.17; Middle East/N Africa 7.9; Latin America=7.14; Sub-Saharan Africa=5.2; East Europe/Post-soviet countries 4.5; and South Asia=4.2 years

¹⁰ Are amendments procedures becoming more flexible? Casual observation suggests that things are moving in the other direction. Flexibility would point toward something closer to parliamentary sovereignty, in which constitutional rules are passed in a manner that looks a lot more like passing statutes than constitutions. Yet we have also observed a historical trend away from pure parliamentary

exploring these challenges, we go on to develop a measure of amendment culture as an alternative to institutional factors that constrain amendment.

A. *Conceptualizing Amendment Difficulty*

There is tremendous variation in the amendment procedures used from one country to the next and often even across constitutions within a single country. Constitutions that require numerous political actors and high voting thresholds should be more difficult to amend and, hence, more entrenched than constitutions that lack such stringent amendment procedures. Scholars have attempted to assess this intuition by measuring the rigidity of the amendment procedure, which we will call *amendment difficulty*. The idea underlying measures of amendment difficulty is deceptively simple: onerous procedures should lead to lower levels of constitutional amendment. Such measures assume that the institutional barriers are predictable determinants of stability or flexibility: if things like the political configuration, the rate of environmental change, and the content of the constitution are held constant, we could use a valid measure of amendment difficulty to predict how much constitutional change will occur over a constitution's life span.

Operationalizing these concepts is hardly straightforward, however. The basic problem is that the comparative flexibility of the hybrid set of procedural arrangements is not obvious *ex ante*. For example, it is difficult to evaluate whether a constitution that requires a 2/3 vote of the legislature to amend the constitution is more or less flexible than one that requires an ordinary legislative majority with subsequent referendum by the public. We observe many different kinds of amendment procedures involving different vote thresholds, combinations of institutions, and sequences. Consider several sources of variation:

- *Steps to passage*. The range of different models used in constitutional design is very great. Bicameral and presidential systems will typically include approval by both houses of parliament or an independently elected president. In Scandinavia, amendment usually requires approval by two successive parliaments, or at least that the amendment be proposed in a different parliament than that which approves it (Norway). Public approval is an increasing popular requirement: some 40% of constitutions in force include such a requirement. To summarize the design choices, amendments can require:

sovereignty, and toward more accountability institutions. If this is accompanied by greater legislative use of supermajorities for constitutional change, then constitutions may be actually becoming more rigid.

- proposal by a particular actor or group of parliamentarians
 - multiple readings in a parliament;
 - passage by different parliaments with an intervening election;
 - various levels of legislative supermajority;
 - approval by the national executive
 - public proposal or approval;
 - constitutional court review;
 - ratification by subnational governments;
 - other institutional designs – e.g. the creation of constituent assemblies.
- *Multiple alternative procedures.* Some constitutions will specify a number of alternative procedures: for example the U.S. Constitution includes passage by legislative supermajority and ratification by state legislatures as one method, and a constitutional convention as another (never utilized) method. American states use constitutional conventions more frequently to modify or replace their own constitutions. Finland includes an ordinary procedure involving delay and an intervening election followed by a 2/3 vote, while also allowing an urgency procedure in which 5/6 of a single legislature can approve an amendment without intervening elections.¹¹
 - *Substantive variation.* Furthermore, a given constitution may not be consistent across topics. The US Constitution, for example, requires a standard procedure for most topics but effectively requires a unanimity rule for modifications to the principle of equal representation of all states in the Senate. The drafters of India's Constitution set up a complicated amendment formula, by which some provisions can be amended by an absolute majority in both houses of parliament with 2/3 present, and some require an additional ratification by half of the states.¹² An additional set of individual provisions in the Indian constitution can be modified by simple majority in parliament.

¹¹Bjorn Erik Rasch, 2003. *The Constitution as an Instrument of Change*. Stockholm: SNS forlag chapter Rigidity in Constitutional Amendment Procedures, pp. 111-25, at 115.

¹² Article 368.

- *Unamendability.* Many constitutions have some provisions that are unamendable. Roznai (2013) reports that 40% of constitutions have some provisions that are unamendable.¹³ Some 11% entrench certain basic rights. In many other countries, courts have read certain provisions to be unamendable.
- *Observed variation.* We also observe tremendous variation in actual frequency of formal amendment: the 1946 Constitution of Japan has never been amended; the Constitution of India adopted two years later has been amended over 100 times.

These sources of variation make development of a cross-national comparative indicator of amendment difficulty quite challenging, and perhaps even impossible, as a theoretical matter. As long as more than one institution is involved, the relative difficulty of any alternative procedure will depend largely on the configuration of preferences rather than the institutional structure per se. To illustrate, consider two countries with the same amendment procedure, but with different political configurations: one has a dominant political party that wants to change the constitution and is able to do so regularly, while the other consists of a many small parties, most of which oppose constitutional amendment. In this example, the political configuration rather than the institutions explains the likely different outcomes.

Despite the challenges to comparing institutional features across countries, there are strong reasons to try to develop a true indicator. One is that real world constitutional designers face the challenge of writing an amendment rule.¹⁴ They surely would value information on which methods are relatively flexible and rigid, so as to inform the drafting decision. This has prompted several scholars, including ourselves, to attempt to develop such an indicator; these indicators are listed in table 1. The remainder of this section explains the measures in table 1 and evaluates their validity.

--Table 1 here--

B. *Measuring Procedural Difficulty*

Many of the efforts to date start with the observed rate of amendment in any given system. Like amendment difficulty, the *amendment rate* is a deceptively simple concept: it refers to the amount of constitutional change, or frequency of amendment, that results from

¹³ Yaniv Roznai, Unconstitutional Constitutional Amendments—The Migration and Success of a Constitutional Idea, forthcoming, *American Journal of Comparative Law* (2013).

¹⁴ Our data show that an amendment rule is an essential feature of written constitutions, with over 98% of documents in force having such a provision.

formal constitutional amendments over some predetermined period of time. Measuring this concept implies determining the total “amount of change” over some period of time and dividing that amount by the length of time. This requires decisions about the period of time upon which the measure is based and operationalizing the magnitude of constitutional change.¹⁵ If measures of amendment difficulty are based on measures of the amendment rate, each of the aforementioned measurement decisions can affect the resulting measure of amendment difficulty. (We return to these issues below).

The classic paper on the topic of amendment difficulty is by Donald Lutz.¹⁶ Compiling an array of information on national and subnational amendment processes, he uses data on observed rates of amendment from US states to calculate weights associated with different procedures. He then applies these weights to formal provisions on constitutional amendment for a set of democratic countries, developing an index in which the U.S. method turns out to be the most rigid, while New Zealand’s is the most flexible.¹⁷ A later scholar, Astrid Lorenz, uses a similar approach, but bases her analysis only on procedures in national constitutions. She also restricts the analysis to the period from 1993 through 2002.¹⁸

Our own (“CCP”) approach follows Lutz in measuring ease of amendment using information on both the observed amendment rate, and the formal amendment procedures of

¹⁵ When Lutz (1994) conducted his seminal study, there was little cross-national information about the frequency of constitutional change. The Comparative Constitutions Project (CCP) has filled this informational gap by creating a chronology of all constitutions and constitutional changes that have been promulgated in independent states since 1789 (Elkins, Ginsburg and Melton 2009). The chronology records all constitutional changes, or events, and divides the events that have taken place in each country into systems, based on the introduction of “new,” “interim,” or “reinstated” constitutions. More information about the CCP is available at <http://www.comparativeconstitutionsproject.org/>.

¹⁶ APSR 1994, reprinted in Levinson, ed. *Responding to Imperfection* (1995). See also John Ferejohn, “The Politics of Imperfection” *Law and Social Inquiry* 22:501-31(1997).

¹⁷ Lutz does not explain how he defines “true constitutional systems.” Lutz at 356.

¹⁸ Astrid Lorenz. 2005. “How to Measure Constitutional Rigidity: Four Concepts and Two Alternatives.” *Journal of Theoretical Politics* 17(3):339-361. This allows her to avoid problems of right-censoring, and to control for global forces that might cause countries to pursue amendment. However, choosing a single period of time to analyze forces one to compare constitutions of very different ages. This strategy also poses an equivalency problem because old and new constitutions might be amended at different rates. Since constitutional drafters’ are less able to anticipate future events the further into the future they look, this possibility seems quite likely. Like Lutz, Lorenz also restricts her sample to “true constitutional systems”, meaning systems categorized as continuously democratic during her sample period. Lorenz at 348.

each constitution. However, instead of modeling all amendments as equally difficult, we assume that the first amendment passed in any given year is the most difficult.¹⁹ This assumption is based on a belief that the primary difficulty in amending a constitution is finding a coalition willing to pass the amendment. Once the constitution is amended once, such a coalition is identified and subsequent amendments are easier to promulgate.

Our approach differs from Lutz primarily in that we do not treat state and national constitutions as comparable in light of their very different purposes and scope.²⁰ Further, we use a slightly different method for developing the weights. Instead of drawing on the observed rates of amendment from US state constitutions, we model the amendment rate as part of a larger effort to understand constitutional change. We then estimate the effects of particular amendment rules, net of other predictors. Thus, we regress the amendment rate on a set of amendment procedure variables as well as on a host of factors that should predict political reform more generally, including those factors included in our model of constitutional duration.²¹ The unit of analysis in our model is the country-year, and the dependent variable is binary, indicating whether or not one or more amendments were promulgated in a given country-year.²² We use a conditional logit estimator to estimate the effect of several amendment procedure variables on the probability of amendment: the number of actors involved in various stages of the amendment process, the margin necessary to pass amendments through the legislature, and dummy variables to indicate the role of different bodies in the process. After estimating the model, we predict the probability of amendment by constraining all variables except those related to the amendment procedure to their mean. The resulting measure is available for all constitutions coded by the CCP. The predicted amendment rate varies from 0 amendments per year to 0.92 amendments per year (with a mean of 0.19 and standard deviation of 0.20).²³

Like those of Lutz and Lorenz, our measure is partly endogenous in that it relies on observed variation in amendment rates. Unlike other measures, however, we do take into

¹⁹ Lorenz, Astrid. 2005. "How to Measure Constitutional Rigidity: Four Concepts and Two Alternatives." *Journal of Theoretical Politics* 17(3):339-361.

²⁰ See Tom Ginsburg and Eric Posner, *Subconstitutionalism*, Stanford Law Review; but see Mila Versteeg and Emily Zackin, *American Constitutional Exceptionalism Revisited*, CITE.

²¹ Lorenz (2005) recommends roughly similar measures in another context.

²² For more detail see *Endurance of National Constitutions* (2009).

²³ For a more thorough description of this procedure and the resulting predicted amendment rate, see the online appendix at www.comparativeconstitutionsproject.org.

account social and political factors that are likely to put pressure on countries to amend the constitution, because we extract our coefficients from a complete model of constitutional replacement.

Note that our analysis does not take into account the problem of *multiple alternative procedures* mentioned above. So long as the constitution includes a procedure, we incorporate it into our analysis, *regardless of whether it has ever been utilized in practice*. To illustrate, our weights for “constitutional convention called by subnational units” would be partly produced by the amendment rate from the US constitution, even though that method has never been used.²⁴

Other, simpler approaches are possible if one builds an index based on theoretical expectations about the relationship between the amendment procedure and the amendment rate. The earliest such measure was created by Lijphart in his comparison of the Westminster and consensus models of government.²⁵ Lijphart's measure is ordinal and based almost entirely on the vote threshold required for constitutional amendments in the legislature. A supermajority requirement greater than 2/3 is assigned a score of four, a supermajority requirement of 2/3 gets a score of 3, a supermajority requirement less than 2/3 gets a score of 2, and an ordinary majority threshold gets a score of 1. Similarly, La Porta et al. measure the power and reach of the judicial system for 71 countries and include a variable for “constitutional rigidity”.²⁶ This variable measures, on a scale from 1 to 4, how hard it is to change the constitution in a given country. One point each is given if the approval of the majority of the legislature, the chief of state and a referendum is necessary in order to change the constitution. An additional point is given for each of the following: if a supermajority in the legislature (more than 66% of votes) is needed, if both houses of the legislature have to approve, if the legislature has to approve the amendment in two consecutive legislative terms or if the approval of a majority of state legislature is required. This is a simple measure but does not seek to empirically test its validity or power, as it is developed in the context of a different research question.

²⁴ One other note on the CCP measure. The variables related to the vote threshold required for an amendment to pass in the legislature are among the only statistically significant variables in our model. But our index does not account for statistical significance. Since most of the amendment-procedure related variables in our model involve the number of actors, this suggests that the number of actors involved in the process, and not the vote threshold, is probably driving the variance. In our model reported below, we include some variables related to both the threshold and the number of actors.

²⁵ Arend Lijphardt. 1999. *Patterns of Democracy: Government Forms and Performance in Thirty-Six Democracies*. New Haven: Yale University Press.

²⁶ La Porta, Rafael, Florencio Lopez-de-Silanes, Christian Pop-Eleches, and Andre Shleifer. 2004. “Judicial Checks and Balances.” *Journal of Political Economy* 112(2): 445-470.

Anckar and Karvonen also use this type of measure.²⁷ Like Lijphart, their measure is ordinal, but unlike Lijphart, their measure accounts for both vote thresholds and the number of actors involved in the amendment process. They differentiate procedures that use an ordinary majority from a supermajority as well as procedures that require citizen involvement from those that do not. The simplest procedure – i.e. ordinary majority in the legislature and no citizen involvement – receives a score of two, and the most complex procedure – supermajority of both legislators and citizens is required – receives a score of nine. Procedures which lie between these two in terms of difficulty receive a score between 2 and 9. However, since virtually all constitutions in their sample require supermajority support in the legislature for amendments to be approved and few require supermajority support of the citizens, the pivotal distinction according to their measure is whether or not citizens are involved in the amendment process. If so, then the constitution receives a score of 6; if not, then the constitution receives a score of 5. Of the 84 constitutions ranked by Anckar and Karvonen, 77% (65) receive one of these scores.

The final measure is the ordinal one produced by Rasch and Congleton.²⁸ Like many of their predecessors, they differentiate procedures based on the number of actors involved and the legislative thresholds required. The easiest procedures only require a majority of the legislature to pass and are assigned a 1. The hardest procedures require a supermajority in the legislature and multiple actors are involved (i.e. a referendum, approval of subsidiary units, or approval by a newly elected legislature) and are assigned a score of 4. For the two intermediate categories, they assume the number of actors makes the procedure harder than requiring a supermajority in the legislature. As a result, they assign a score of 2 when amendment only requires a supermajority in the legislature and 3 when only a majority is required in the legislature but multiple actors are involved in the process.

Existing measures of amendment difficulty are poorly correlated, indicating low levels of convergent validity. Table 2 presents the correlation between each combination of measures. Only three combinations yield a correlation greater than 0.5: Anckar and Karvonen with Lijphart, Lijphart with Lorenz, and Lorenz with Lutz. The other correlations are all smaller than 0.5, and the correlation between the CCP and Lorenz measures is even negative. Typically, in political science, measures of the same concept tend to be highly correlated, which suggests a high

²⁷ Anckar, Dag and Lauri Karvonen. 2002. "Constitutional Amendment Methods in the Democracies of the World." Unpublished Manuscript.

²⁸ Rasch, Bjorn Erik. 2008. "Foundations of Constitutional Stability: Veto Points, Qualified Majorities, and Agenda-Setting Rules in Amendment Procedures." Unpublished Manuscript; Rasch, Bjorn Erik and Roger D. Congleton. 2006. *Democratic Constitutional Design and Public Policy: Analysis and Evidence*, Volume 1. The MIT Press chapter Constitutional Amendment Procedures, pp. 372-397.

degree of what is called convergent validity.²⁹ For instance, measures of democracy tend to be correlated at levels of 0.8 or higher.³⁰ Based on this standard, one could argue that the low correlations in table 2 demonstrate validity problems with extant measures of amendment difficulty.

--Table 2--

C. *Amendment Culture*

While the profound methodological challenges that we articulate above suggest that the standard efforts to measure amendment difficulty may never be fully adequate, the very fact that the various institutional measures are so poorly correlated suggests that they are missing something deeper. There is a possibility that any effort which focuses solely on institutions will never fully capture the observed variation in patterns of amendment in different systems because certain societal attributes, which we will call “amendment culture”, are more important determinants of the level of resistance to constitutional amendments.³¹

We define amendment culture as the set of attitudes about the desirability of amendment, independent of the substantive issue under consideration and the degree of pressure for change. In other words, there is a baseline level of resistance to formal constitutional change in any particular system; as this baseline level increases, the viscosity of the constitutional amendment process decreases *even under identical institutional arrangements*.

Why might amendment culture exist? Start with the basic intuition common to virtually all accounts of constitutionalism: barriers to amendment are not merely institutional. This point is most clearly seen in the context of the British Constitution, in which the “constitutional” work is done by conventions rather than by formal entrenchment.³² Similar stories are told in New

²⁹ Convergent validity is only an indicator of validity if all of the highly correlated measures are valid indicators of the underlying concept. It is possible that several measures of the same concept are highly correlated but that all are invalid. Thus, convergent validity is necessary but insufficient to demonstrate the validity of any given measure.

³⁰ For instance, see Alvarez, Mike, Jose Antonio Cheibub, Fernando Limongi and Adam Przeworski. 1996. “Classifying Political Regimes.” *Studies in Comparative International Development*. 31(2): 3-36 at 21.

³¹ On legal culture in a constitutional context, see, e.g., Vicki Jackson, CONSTITUTIONAL ENGAGEMENT IN A TRANSNATIONAL ERA 240-43 (2010); Xenophon Contiades, *Constitutional Change Engineering*, in ENGINEERING CONSTITUTIONAL CHANGE: A COMPARATIVE PERSPECTIVE ON EUROPE, CANADA AND THE USA 1, 3 (2013).

³² Anthony King, *THE BRITISH CONSTITUTION* (2007)

Zealand and Israel, both of which have constitutional texts that, for the most part, can be amended by ordinary legislative majority. In these countries, we are told, *political* barriers to changing rules are the source of stability, and these political barriers function so well that additional institutional protections are not needed (though as Stephen Gardbaum has pointed out they have been introduced to some degree in recent years).³³ This point, and the fact that all these countries have functioning constitutional systems, suggest that entrenchment of certain rules is not necessary for constitutionalism. That political constitutionalism is a possibility implies some cultural barrier to a complete revision of the rules to benefit narrow partisan interests.

Now consider a system which *does* have institutional barriers to amendment, like the United States. Even in this context, scholars have noted that there may be some drag on proposing constitutional amendments simply because the label “constitution” communicates that stability is desirable.³⁴ This means that the forces limiting amendment are not merely institutional, but related to political attitudes.

Suppose further that the political weight assigned to the value of entrenchment differs across countries and constitutional cultures. If in some countries, the constitution is treated as a sacred text, never to be touched except for matters of major importance, while in other countries, the constitution is of little normative significance, we would observe different values on entrenchment. If this is true, then the observed rate of constitutional amendment in any particular country might reflect not only institutional factors, or the baseline pressures caused by political and social change, but also these different weights ascribed to the constitution itself. This is what we are calling amendment culture.

By using the term amendment culture, we are not asserting that attitudes about amendment are immune to change. The normative value assigned to constitutional change might vary over time even within a particular country, with political and social conditions. For example, in the United States, we have observed constitutional amendments in waves: the Civil War and Progressive era saw a number of amendments, while other eras of rapid social and political change such as the New Deal and the Civil Rights Era did not.³⁵ Our argument is that

³³ See Stephen Gardbaum, *THE NEW COMMONWEALTH MODEL OF CONSTITUTIONALISM: THEORY AND PRACTICE* (2013).

³⁴ Stephen M. Griffin, *The Nominee Is . . . Article V*, in *CONSTITUTIONAL STUPIDITIES, CONSTITUTIONAL TRAGEDIES* 51 (William N. Eskridge, Jr. & Sanford Levinson eds., 1998). See also, Janet L. Hiebert, *Limiting Rights: The Dilemma of Judicial Review* (1996).

³⁵ Amy Myrick, *Article V Advocacy on Fiscal Issues, 1900 through 2013*, manuscript at page 5 (detailing number of amendment proposals in Congress over time on fiscal issues.)

there may be cultural factors surrounding the degree of veneration of the constitution that will affect either the number of proposals or the likelihood that proposals will be approved.

We do not fully articulate the determinants of these cultural factors. One might imagine they may be responsive to institutional structure, so that a high amendment threshold will signal to people that the constitution is sufficiently sacred that it is not to be changed. Alternatively, the cultural factors could work against the amendment rule, in which a high threshold induces political actors to propose many amendments, since few will be adopted. Conversely, a low threshold might lead people to be cautious about constitutional reform, precisely because it is easy; or might lead them to experiment with frequent “statutory” reforms. We set these complexities aside for the moment, but expect that the particular relation between attitudes and the amendment threshold will vary across time and space.

III. Assessing the Determinants of Flexibility: Amendment Difficulty and Culture

The previous section articulated two competing ideas about what might lead to a higher or lower amendment rate in any particular time and space: institutional factors and cultural factors. In the remainder of this paper, we set out to test the validity of these two explanations. It is important to note from the outset that theories focusing on amendment procedures and those that focus on amendment culture are not mutually exclusive; it is possible (and maybe even likely) that both procedure and culture affect flexibility. However, the relative power and validity of the respective factors has implications for both constitutional drafters and theories of constitutionalism, which is the motivation for our analysis. Drafters will want to know whether institutional design—the only factor within their direct control—can make a difference in facilitating responses to environmental change. Constitutional theorists wrestle with the mechanisms of constitutional change and the relative importance of formal constraints.³⁶

We test our conjectures about the importance of institutions and culture by statistically analyzing the relationship between constitutional amendment rates and both the amendment procedures in those constitutions and the amendment culture in the country where those constitutions are in force. In the remainder of this section, we discuss how we operationalize each of these concepts. The results are presented in the next section.

A. *The Dependent Variable: The Constitutional Amendment Rate*

As noted above, the constitutional amendment rate is simply the amount of change that occurs within a constitution through the constitutionally prescribed amendment procedure.

³⁶ Bruce Ackerman, *WE THE PEOPLE* (1990).

Several measures of the constitutional amendment rate exist, and each is based on the frequency, or number, of amendments made to a constitution over some amount of time. Notably, no existing measure of amendment rate considers the extent to which the constitution is changed when operationalizing the magnitude of constitutional change. Indeed, all previous measures of amendment rate operationalize the magnitude of constitutional change using the frequency of amendment. Lutz and Lorenz both use the total number of amendments, and the CCP uses the number of years when a constitutional amendment is promulgated.

These two approaches (Lutz/Lorenz and the CCP) make different assumptions about the ease of amendment. The former assumes that each amendment is equally difficult to promulgate. The latter assumes that the first amendment passed in a given year is the most difficult. This assumption is based on a belief that the primary difficulty in amending a constitution is finding a coalition willing to pass the amendment. Once the constitution is amended once, such a coalition is identified and subsequent amendments are easier to promulgate. Notably, no existing measure of amendment rate considers the extent to which the constitution is changed when operationalizing the magnitude of constitutional change.

Existing approaches implicitly assume that all amendments, or amendment-years, are equal. Needless to say, there is significant variation in the changes made by constitutional amendments. For example, each of the amendments promulgated in South Korea since 1948 essentially overhauled the entire constitutional system, and some commonwealth countries -- e.g. Canada and New Zealand -- have adopted bills of rights through constitutional amendment. These are examples where much of the constitution was changed through constitutional amendment. Other amendments are quite short. A 2009 amendment in Austria, for example, read "In Article 87a, para. 1 the words "in matters of civil law" are excised."³⁷ This changed the adjudicative powers of certain administrative officials.

Even short amendments, of course, can have large consequences. For instance, in response to the recent financial crisis, Spain promulgated an amendment in 2011 replaced article 135 with six provisions on fiscal responsibility and the regulation of government debt. The new article 135 will fundamentally change how the national budget is made in Spain.

These examples demonstrate that there is great variation in the extent to which constitutional amendments change countries' constitutions. The extent of constitutional change can be further analyzed by looking at the similarity between constitutional systems before and after an amendment is promulgated. To conduct such an analysis, we calculated a measure of

³⁷ *Federal Law Gazette Nr. 47/2009*

similarity using data from the CCP. For each question from the CCP's survey instrument, we create a binary variable that is coded one if, for a given question, the same answer is given for both constitutional events being compared. This yields 1,834 binary variables. The average of these binary variables yields the similarity between any two events. We restrict the analysis of these similarities to chronologically adjacent events, meaning that similarity is only calculated when both chronologically adjacent events have been coded by the CCP. After this restriction, we are able to calculate similarity between 1,252 events. The distribution of these similarities is illustrated in figure 2.

--Figure 2 here--

The most striking feature of Figure 2 is the percent of events with a similarity near 1. In other words, the vast majority of constitutional amendments result in few changes to the CCP's survey instrument. 28% (347) of the events analyzed have a similarity of 1, meaning that the amendment did not change a single question on the CCP's survey instrument. Another 38% (471) of events have a similarity score between 0.99 and 1, a range which indicates changes to only a few of the variables (less than 1%) created by the CCP's survey instrument. The remaining 34% of constitutional amendments assessed resulted in changes to more than a few questions on the CCP's survey instrument. This pattern corroborates the results reported by Elkins, Ginsburg and Melton using more than ten times the number of amendments and a much more sensitive measure of similarity.³⁸ It seems that most constitutional amendments do not change many provisions in countries' constitutions.

Variation in the extent to which constitutional amendments change the constitution has important implications for how we measure the amendment rate. Ultimately, we are interested in how much change is made to the constitutional text through amendment. Variance in the magnitude of change caused by individual amendments means that one large amendment can affect a constitution's content as much as (or more) than ten smaller amendments. This makes frequency of amendment a poor indicator of the magnitude of constitutional change. Unfortunately, all existing measures of constitutional change focus on frequency, which might cause those measures major validity problems.

In the analysis below, we use two measures. The first is the CCP measure used in Elkins, Ginsburg, and Melton, which is based on the frequency of amendment.³⁹ The second is a new measure that weights the frequency of amendment using the extent of changes made to the

³⁸ *The Endurance of National Constitutions*. (2009) at 56.

³⁹ *The Endurance of National Constitutions*. (2009) at 99-103.

constitution. Reversing the scale of the similarity index described above provides a measure of the extent of change made to countries' constitution by each amendment. Summing the reversed similarity index over a fixed period of time and dividing by the number of years in that period provides the weighted measure.

To illustrate, the United States' constitution, which has been in force for 225 years, has 27 constitutional amendments appended to it. The amendments were approved in 16 years – 10 amendments were promulgated in 1791 and 2 were promulgated in both 1913 and 1933. Thus, according to the unweighted measure, the United States' constitution has an amendment rate of 0.07 (16 divided by 225), which indicates that the United States' constitution is expected to be amended 7 times for every 100 years of existence. The weighted measure is calculated in a similar manner, but it takes into account the extent of the changes to the CCP survey instrument that resulted from each amendment. We start by determining the proportion of the CCP's survey instrument affected by each amendment. For the United States, this is zero for several amendments – those that occurred in 1895, 1804, 1919, 1933, and 1961. The largest change to the CCP's survey instrument resulted from the inclusion of the Bill of Rights in 1791, which caused changes to more than 2% of the CCP's survey instrument. To calculate the weighted amendment rate, we sum these proportions for each year and divide by the age of the constitution at its replacement or, if it is still in force, in 2013. For the United States, approximately 4.7% (or 0.0471588) of the CCP's survey instrument has been changed through the 27 amendments, which yields a weighted amendment rate of .0002096 (0.0471588 divided by 225). In other words, for every hundred years of existence the about 2% of the CCP's survey instrument is expected to be changed through amendments to the United States' constitution.

We use this procedure for each constitutional system, yielding unweighted and weighted measures of the amendment rate for each constitution. The unweighted amendment rate is available for all constitutional systems, and the weighted amendment rate is available for 671 constitutional systems, 573 systems with no recorded constitutional amendments and 98 systems for which the CCP has coded all the amendments. These are the dependent variables in the analysis below, which means that the constitution is the unit of analysis.

The distributions of the two measures are illustrated in Figure 3. The plot on the top is for the unweighted measure and the plot on the bottom is for the weighted measure. The modal value in both plots is zero. Perhaps surprisingly, most constitutions were never amended – 58% (573).⁴⁰ Even of those that were amended, though, most amendments changed very little

⁴⁰ Notably, democratic constitutions (for definition, see footnote 33) are more likely to be amended than non-democratic constitutions. Only 34% (249) of non-democratic constitutions were ever amended, compared with 65% (166) of democratic constitutions. However, if one excludes those constitutions

substance in the constitution. This is reflected in the figures by the fact that almost all of the density in the weighted amendment rate measure is on the far left of the plot. Conversely, there are a number of constitutions that score quite high on the unweighted measure because countries like India and Brazil amend their constitutions almost every year. Of the constitutions assigned an amendment rate using the new measure, Guinea-Bissau's constitution of 1973 has experienced the most change. Its amendment rate is 0.0068, which indicates that approximately 0.7% of the CCP's survey instrument (approximately, 58 variables) was changed by the one amendment promulgated in the 11 years that the constitution was in force. Among constitutions which have experienced at least one amendment, the constitutions with the lowest amendment rates are Honduras's 1965 constitution and Mexico's 1857 constitution. Each was amended multiple times, but no amendment led to any changes to the CCP's survey instrument.

--Figure 3 here--

Notably, the weighted measure of amendment rate does not correlate strongly with existing, frequency-based measures. The correlations between the weighted measure and the unweighted CCP measure is just 0.48. This is a low correlation, but it is highly inflated by the fact that most constitutions were never amended. If those constitutions are omitted, the correlation decreases to 0.14. It is difficult to tell from this which measure is a more valid representation of constitutional flexibility or if there are any validity problems at all. Perhaps both are valid but are simply capturing different concepts. As a result, we take a conservative approach below and estimate models using both measures of the amendment rate.

B. Measuring Amendment Difficulty

We have already indicated the problems associated with measuring amendment difficulty using a single variable. Although such measures exist, they are plagued with validity problems, as indicated by the low correlation between these measures. As a result, we operationalize amendment difficulty using several variables that reflect different aspects of the amendment procedure. Such an approach has the added advantage of allowing us to say something about which aspects of the process affect the flexibility of the constitution.

We include four variables. Two are related to the actors involved in the process, one is related to the vote thresholds required for the approval of amendments, and the last is about the length of the process. The first two indicate the number of actors involved in the proposal and approval phases of the process. We expect that more actors who can propose amendments

never amended, the average amendment rates between democratic and non-democratic constitutions are about the same – 0.25 and 0.21, respectively.

will increase the amendment rate and that more actors involved approval will decrease the amendment rate.

The third variable indicates the threshold necessary for approving constitutional amendments in the legislature. The values are 0.5, 0.6, 0.67, and 0.75, and we expect that larger values lead to lower amendment rates. Note that we do not differentiate between chambers of the legislature, although it is quite rare that the two chambers would have different voting thresholds. For constitutions that do not specify a threshold for approving constitutional amendments in the legislature, we assume that the normal procedure is followed and assign a value of 0.5.

The final procedural variable captures the length of time required to pass a constitutional amendment. Like all legislation, constitutional amendments take time, but some amendment procedures require significantly more time to complete than others. Variance in the length of the procedure has two effects.⁴¹ The first is a mechanical effect: lengthy procedures leave less time for the consideration of additional amendments. For instance, in Greece, amendments are adopted by votes in two separate parliaments, meaning that an intervening election is required for approval.⁴² As a result, it may take up to four years to promulgate a single constitutional amendment in Greece, depending on when the amendment was initially proposed. The second effect is that public opinion towards the amendment might change over time, either due to changes in individuals' attitudes toward the amendment or because opponents have time to organize and to rally opposition to the amendment. Either way, longer procedures are likely to mean fewer amendments over a constitution's life span. To assess the effect of time delays, we include a binary variable that indicates constitutions which require votes in more than one parliamentary session.

C. Measuring Amendment Culture

Amendment culture is also a tricky concept to measure. To our knowledge, there have been no attempts to develop a cross-national measure of amendment culture. Ideally, one would have micro-level data (e.g. from a survey) on individual's attitudes towards constitutional change. Since such data does not exist, we are forced to use a proxy. We operationalize amendment culture as the rate at which a country's previous constitution was amended. In other words, we lag the dependent variable. For countries' first constitutions, we assign the

⁴¹ For a more thorough description of these effects, see John Ferejohn, "The Politics of Imperfection" *Law and Social Inquiry* 22:501-31 (1997).

⁴² Greece's Constitution of 1975, Article 110, Paragraphs 2-4.

measure a value of zero, since the amendment culture is unknown. This is not a perfect measure of amendment culture because it will correlate with time-invariant country level attributes, but it is the best we can do with existing data. Furthermore, our measure itself is *not* time-invariant, so it does not reflect only features of the country.

D. Covariates

We include a number of covariates in our models. Perhaps most importantly we control for the level of specificity of the constitutions – operationalized as length (in words) and scope. More specific constitutions create more opportunities for drafters to make mistakes and miscalculations. They also create more provisions that can possibly be amended. We expect both measures of specificity to be positively correlated with the amendment rate. We also include a binary indicator of judicial review. The measure assesses whether or not the constitution provides judges the power of judicial review and is used to control for the possibility that judicial review might be used as a substitute for formal amendments. The other covariate we include in the model is year of promulgation, measured by century. We noted previously the pronounced increase in the number of constitutional amendments since 1950. It is important to control for this temporal trend in the analysis in case it is correlated with changes in other independent variables in our model. Aside from these covariates, most models include region fixed-effects to account for any spatial variation in the propensity of countries to amend their constitutions.

IV. Results: Amendment Difficulty or Culture?

How well do amendment culture and amendment institutions predict observed amendment rates?⁴³ We answer this question by estimating a series of ordinary least squares regression models, in which the unit of analysis is the constitutional system. Table 3 presents the results. The dependent variable is the unweighted amendment rate in columns 1-4 and the weighted measure of amendment rate in columns 5-9. For each measure of the amendment rate, two models are estimated on two different samples, for a total of four regressions. The two samples are the full sample of countries and a smaller sample of democratic constitutions only, following the convention adopted by Lutz and Lorenz.⁴⁴ For each dependent variable and

⁴³ In unreported analysis, we analyze the validity of some of the six amendment difficulty measures. In general, we find that measures that focus on the actors involved in the amendment process are better predictors of the amendment rate than measures that focus on the threshold for legislative approval. See James draft at 22-25.

⁴⁴ Democratic constitutions satisfy must satisfy one of the following two criteria: 1) the country in which the constitution is in force must have been coded as democratic during the entire life span of the constitution, or 2) the country in which the constitution is in force must have transitioned to a democracy

sample, we estimate one model with covariates and one without. Recall that the measures of amendment difficulty are expected to have a negative, statistically significant effect on the measures of amendment rate, and amendment culture is expected to have a positive effect.

--Table 3 here--

The results are intriguing and consistent with our expectations. The best predictor of constitutional amendment rates, it turns out, is what we have called an amendment culture, as measured by the frequency of amendment in the country's *previous* constitution. This is particularly true of the first four models; in each, amendment culture has a large effect. When we use weighted amendment rate as the dependent variable, though, amendment culture is only significantly related to the amendment rate in democratic constitutions. Notably, the coefficient estimates are quite large for the amendment rate, indicating both their statistical and substantive significance.

The institutional variables are never statistically significant, and often, they do not even have the sign one would expect. For instance, large vote thresholds are positively correlated with the amendment rate, suggesting that higher vote thresholds actually yield higher amendment rates. Similarly, requiring votes in multiple parliamentary sessions is associated with higher amendment rates. The only procedural variable with the correct sign is the one indicating the number of approving actors. More approvers decrease the amendment rate, but the magnitude of the coefficient is not large enough to achieve statistical significance.

Some of the control variables in the model are also interesting. First, as expected, the length of the constitution is positively correlated with the amendment rate. Length is a significant predictor in model 3, where the unweighted amendment measure is used. In that model there is expected to be about 1 additional amendment every 10 years a constitution survives for every additional 1,000 words in the constitution. Scope is statistically significant in the same model. For an increase from minimum to maximum scope, the expected number of constitutional amendments is expected to decrease by 2.5 for each 10 years of a constitution's life span. The effect of judicial review is also interesting. Surprisingly, the presence of judicial review actually increases the amendment rate. Although the effect is only statistically significant in model 4, the sign of the variable is consistent across models. This suggests that *de jure* judicial review may not substitute for constitutional amendments, a finding that should be explored further in future research.

during the constitution's life span. We use the democracy-dictatorship measure of democracy created by Cheibub, Jose Antonio, Jennifer Gandhi, and James Raymond Vreeland. 2009. "Democracy and Dictatorship Revisited." *Public Choice*. 143(2): 67-101.

Lastly, and perhaps most importantly, the models in table 3 demonstrate the difficulty of attempting to predict a constitution's amendment rate. The only consistently significant predictor is amendment culture. None of the procedural variables have an effect, and the other constitutional variables do not have a consistent effect across models. This problem is particularly acute in models 5-9 where literally the only statistically significant variable is amendment culture, which is only significant in democratic constitutions.⁴⁵ From a constitutional design perspective, this result is a bit depressing. The results suggest, quite strongly, that constitutional designers have little influence over the observed flexibility of their product.

V. Conclusion: Whither Amendment Culture?

This article has spent a good deal of time on technical issues of measurement, showing that existing measures of amendment difficulty are poorly correlated and may not be valid. But even more critically, we have suggested that a perfectly valid measure may not matter at all in terms of constraining or facilitating amendment. Our argument is that institutions are *not* the primary determinant of amendment rates. At the end of the day, it is hard to disagree with Rasch, who summarizes the situation by noting that the "empirical relationship between rigidity and amendment is however not very robust."⁴⁶

Instead, we argue, attitudes about amendments matter. Our main claim is that something we are calling amendment culture exists and is important. There have been other efforts to tie particular constitutional amendments to cultural concerns, even concerns about the nature of writing and change.⁴⁷ But to our knowledge no one has articulated the idea of an amendment culture at the level of a constitutional system.

Note that our measurement choice allows amendment culture to vary over time, and so is not simply a reflection of unobserved national features that are fixed. It may be that amendment culture *is* shaped by institutions, but with significant lags. Even so, the analysis

⁴⁵ We removed region fixed effects in model 9 to provide more degrees of freedom. With only 49 observations, it does not make much sense to include region fixed effects because some regions only have data available for 1 or 2 constitutions.

⁴⁶ Rasch, Bjorn Erik, *Rigidity in Constitutional Amendment Procedures*, in Eivind Smith, ed. *The Constitution as an Instrument of Change*, Stockholm; SNS Forlag, 2003, pp. 111-25, at 121

⁴⁷ David Thomas Konig, *Why the Second Amendment Has a Preamble: Original Public Meaning and the Political Culture of Written Constitutions in Revolutionary America*, 56 *UCLA L. Rev.* 1295 (2008-2009); Robert Tsai, *ELOQUENCE AND REASON: CREATING A FIRST AMENDMENT CULTURE* (2008).

implies that less is in the control of constitutional designers than they might wish. It also further establishes the stickiness of constitutional features; legacies matter.

One challenge to the idea of an amendment culture is that we observe variation even *within* systems. In a federal system, sub-states often have their own constitutions and these can be amended frequently. In the United States, state constitutions are amended much more frequently than is the national constitution. Do state polities have their own amendment cultures? This seems plausible, though we do not explore that question here.⁴⁸

We also do not explore the strategic incentives that might be explaining from our result. Suppose that designers believe that cultural barriers to amendment are high and so there will be little pressure to amend the constitution. This might lead them to *reflect* those preferences in the form of a rigid amendment rule. Alternatively, they might choose to opt for a very flexible rule. Either way, the formal amendment rule may, in the end, not matter at all, or at least may not matter in predictable ways across countries.

⁴⁸ Emily Zackin, *LOOKING FOR RIGHTS IN ALL THE WRONG PLACES: WHY AMERICAS STATE CONSTITUTIONS CONTAIN AMERICAS POSITIVE RIGHTS* (2013); James T. McHugh, *Ex Uno Plura: State Constitutions and Their Political Cultures* (2003)

VI. Tables and Figures

Table 1: Measures of Amendment Difficulty

Measure	Source of Variation	Mean	Standard Deviation	Range	Obs
CCP	Unclear	0.62	0.38	0-1	450
Anckar and Karvonen	Actors	5.32	1.41	2-9	84
La Porta	Threshold and Actors	2.46	0.84	1-4	71
Lijphart	Threshold	2.64	0.91	1-4	35
Lorenz	Threshold and Actors	4.90	2.08	1-9.5	42
Lutz	Actors	2.48	1.27	0.5-5.1	32
Rasch and Congleton	Threshold and Actors	3.10	0.97	1-4	20

Table 2: Correlation Between Measures of Amendment Difficulty

	CCP	Anckar and Karvonen	La Porta	Lijphart	Lorenz	Lutz	Rasch and Congleton
CCP	1.00 (450)						
Anckar and Karvonen	0.15 (78)	1.00 (84)					
La Porta	-0.05 (56)	0.35 (27)	1.00 (71)				
Lijphart	0.05 (34)	0.74 (31)	0.39 (24)	1.00 (35)			
Lorenz	-0.29 (37)	0.31 (39)	0.75 (22)	0.51 (25)	1.00 (42)		
Lutz	0.16 (31)	0.38 (25)	0.43 (25)	0.36 (26)	0.56 (22)	1.00 (32)	
Rasch and Congleton	0.36 (19)	0.36 (18)	0.33 (19)	0.10 (20)	0.27 (18)	0.42 (20)	1.00 (20)

Table 3: Regression Results

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Amendment Culture	0.21*	0.26*	0.19*	0.26*	0.17	0.42*	0.15	0.38	0.38*
	(0.05)	(0.09)	(0.06)	(0.09)	(0.15)	(0.07)	(0.14)	(0.26)	(0.12)
Amendment Threshold			0.02	0.15			0.00	0.00	0.00
			(0.07)	(0.16)			(0.00)	(0.00)	(0.00)
Number of Proposers			-0.01	0.00			0.00	0.00	0.00
			(0.01)	(0.02)			(0.00)	(0.00)	(0.00)
Number of Approvers			-0.01	-0.02			0.00	0.00	0.00
			(0.01)	(0.02)			(0.00)	(0.00)	(0.00)
Multiple Sessions Required			0.03	0.05			0.00	0.00	0.00
			(0.02)	(0.04)			(0.00)	(0.00)	(0.00)
Judicial Review			0.04	0.09*			0.00	0.01	0.01
			(0.02)	(0.04)			(0.00)	(0.00)	(0.00)
Length (ln)			0.07*	0.05			0.00	0.00	0.00
			(0.02)	(0.04)			(0.00)	(0.00)	(0.00)
Scope			-0.26*	-0.11			-0.01	-0.01	-0.01
			(0.13)	(0.25)			(0.00)	(0.00)	(0.00)
Century of Promulgation			0.01	-0.12*			0.00	0.00	0.00
			(0.02)	(0.05)			(0.00)	(0.00)	(0.00)
Sample	Full	Democ	Full	Democ	Full	Democ	Full	Democ	Democ
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Dependent Variable	AR	AR	AR	AR	Weighted AR	Weighted AR	Weighted AR	Weighted AR	Weighted AR
R-squared	0.04	0.07	0.16	0.20	0.02	0.06	0.10	0.36	0.27
Observations	774	194	552	165	388	62	254	49	49

Notes: Cells contain the coefficient estimates and standard errors from 9 ordinary least squares regression models. Statistical significance is indicated as follows: * = $p(t = 0) < 0.05$.

Figure 1: Number of constitutional replacements and amendments per year

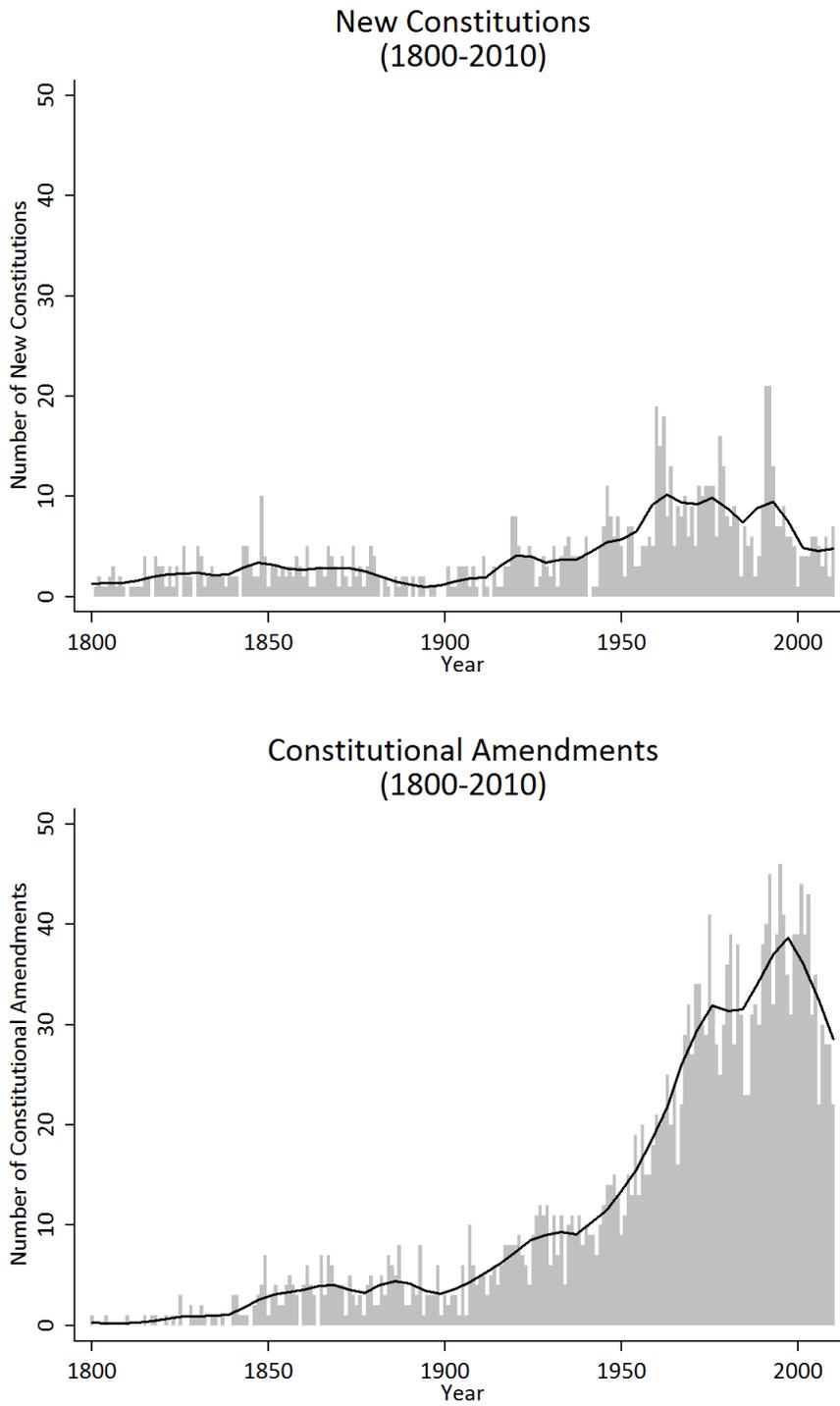


Figure 2: Similarity of Constitutional Amendment with Prior Document

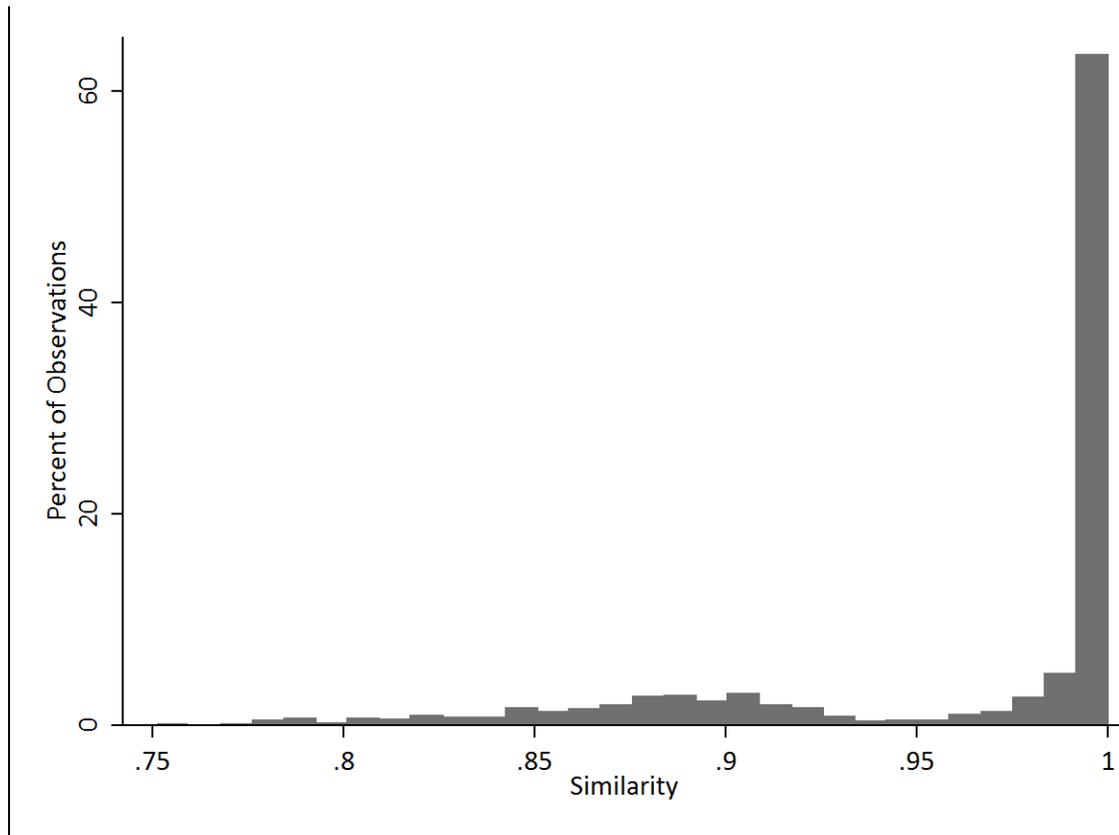
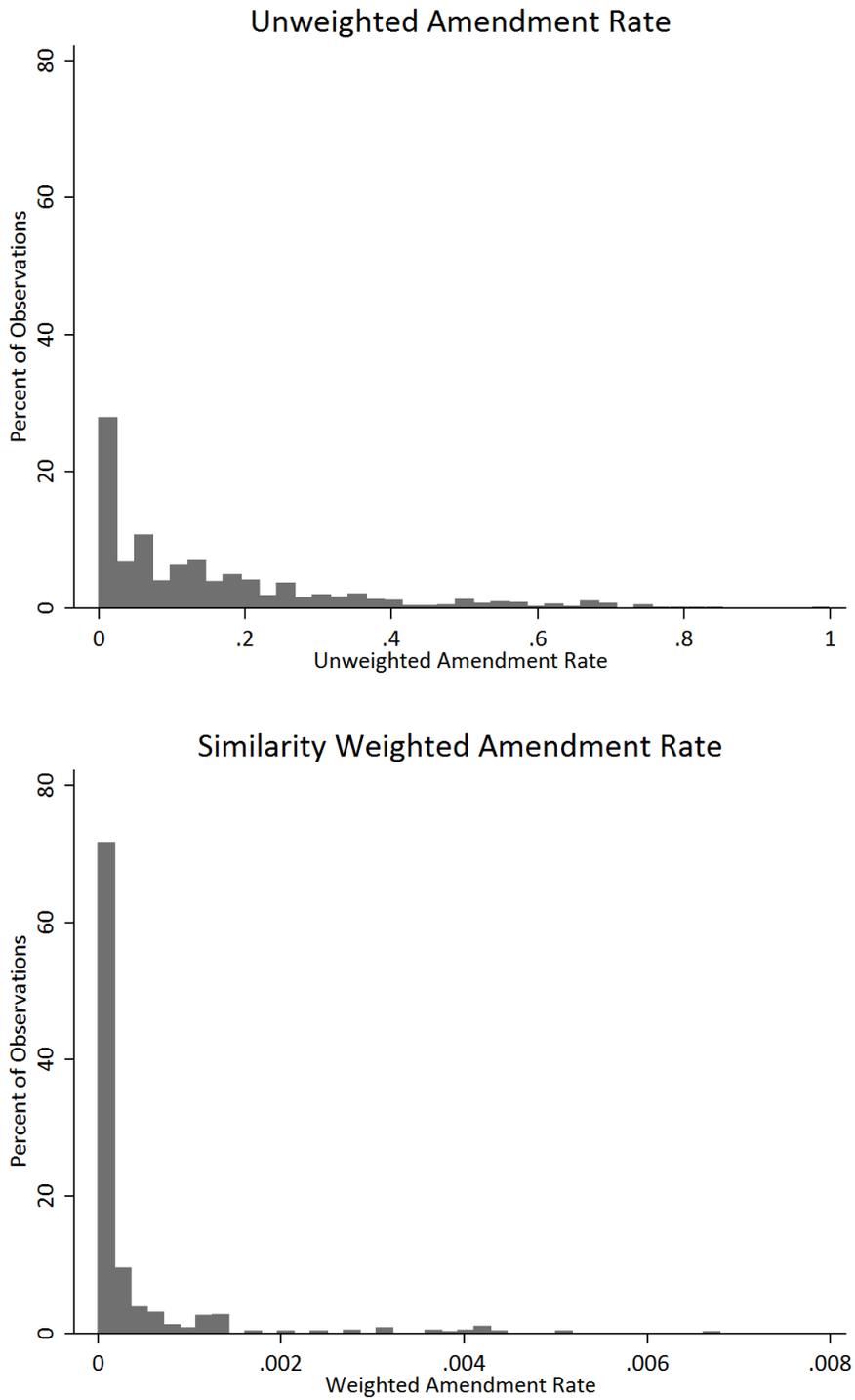


Figure 3: Distribution of Unweighted versus Weighted Amendment Rate



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