

Katalin Kelemen¹ – Nicklas Pettersson:²

Exploring Constitutional Reasoning in the Nordic Supreme Courts: Why and How It Can Be Done

[working title]

1. Introduction

The rise of judicial power has been a widely discussed global trend in the past three decades. Supreme and constitutional courts have been playing an increasingly influential role in defining the direction, shape and content of public policies in many countries.³ The Nordic countries' supreme courts have not been an exception.⁴ Contrary to the general perception in comparative legal scholarship,⁵ Nordic courts took a firm stand on constitutional issues in several cases,⁶ determining the fundamental questions of politics. In some cases, their decisions even provoked accusations of excessive judicial activism.⁷ The impact of a constitutional ruling often goes well beyond the cases actually adjudicated by the courts. For that reason, it is of increasing importance to understand how Nordic judges justify their decisions in constitutional cases. The purpose of this Symposium is to present the main findings of the Nordic CONREASON project, which examines constitutional reasoning in the Supreme Courts of the five Nordic countries, Denmark, Finland, Iceland, Norway, and Sweden.

Judicial reasoning can be understood in different ways. Our research does not delve into the causal-psychological process by which judges arrive at their decisions (known as motivational or motivating reasons). Judicial behaviour, as most political scientists define and use the term, falls outside the scope of this project. Instead, we focus on the written official justifications that the judges publicly provide for their decisions, which is commonly referred to as justificatory reasoning.⁸ Of course, motives and justifications can sometimes overlap, but our primary focus is on those reasons that judges acknowledge as legitimate justifications for a judicial decision within their legal culture. We examine these justifications by considering both argumentation (examining different types of arguments, such as literal, teleological, systematic, etc.) and conceptualization (such as democracy, the rule of law, proportionality,

¹ Associate Professor in Law, Örebro University, Sweden. E-mail: katalin.kelemen@oru.se.

² Senior Lecturer in Statistics, Örebro University, Sweden.

³ Ran Hirschl, 'The Judicialization of Politics', in *The Oxford Handbook of Political Science* (Oxford University Press, 2011).

⁴ Per Henrik Lindblom, 'The Growing Role of the Courts and the New Functions of Judicial Process - Fact or Flummery?', *Scandinavian Studies in Law* 51 (2007): 281–310.

⁵ Marlene Wind and Andreas Follesdal, 'Nordic Reluctance towards Judicial Review under Siege', *Nordic Journal of Human Rights* 27, no. 02 (2009): 131–41; Pia Letto-Vanamo, 'Courts and Proceedings: Some Nordic Characteristics', in *Rethinking Nordic Courts*, ed. Laura Ervo, Pia Letto-Vanamo, and Anna Nylund (Cham: Springer International Publishing, 2021), 21–36, https://doi.org/10.1007/978-3-030-74851-7_2.

⁶ Martin Sunnqvist, *Konstitutionellt kritiskt dömande: förändringen av nordiska domares attityder under två sekel. Vol. 1, 2. rev. uppl.*, Rättshistoriskt bibliotek, 71 (Stockholm: Institutet för rättshistorisk forskning, 2014).

⁷ Fredrik Wersäll, 'En Offensiv Högsta Domstol. Några Reflektioner Kring HD:S Rättsbildning', *Svensk Juristtidning*, 2014, 1–8.

⁸ András Jakab, Arthur Dyeve, and Giulio Itzcovich, 'Introduction: Comparing Constitutional Reasoning with Quantitative and Qualitative Methods', in *Comparative Constitutional Reasoning*, ed. András Jakab, Arthur Dyeve, and Giulio Itzcovich, 1st ed. (Cambridge University Press, 2017), 1–35.

etc.) in judicial reasoning.⁹ A conceptual system can vary in sophistication but is present in every legal system with an independent judiciary and an autonomous legal profession. It is not always solely based on the text of the constitution but often goes beyond that. Given that this conceptual system is built partly by courts, analyzing the key constitutional concepts utilized by the courts in their reasoning provides valuable insights into a constitutional culture.¹⁰

While constitutional reasoning is not fundamentally different from legal reasoning based on statutory law,¹¹ what makes reasoning specifically ‘constitutional’ is that it is based on grounds that are commonly viewed as constitutional. We apply a formal definition of constitution, which refers to the rule (or body of rules) enjoying the highest rank in a legal order. This definition may encompass supranational norms and unwritten constitutional conventions if they are widely acknowledged as forming part of the constitution within the given legal system. All Nordic countries adopt a dualist approach to international law, but Finland gives semi-constitutional status to a distinct category of international treaty obligations, namely international human rights norms.¹² In the other four Nordic countries, the status of international law is more complex and lacks explicit regulation in the domestic constitutions. While the Swedish Constitution explicitly prohibits the adoption of any act of law that contravenes Sweden’s obligations under the European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR),¹³ this provision should not be interpreted as elevating the ECHR to a constitutional level, according to Swedish scholars.¹⁴

The approach we take to constitutional reasoning draws on a realist account of judicial decision-making. Most constitutional comparativists do not accept the orthodox view of the legal profession, which advocates a formalist account of judicial behaviour.¹⁵ The formalist (or legalist) account is built on the assumption that judges are primarily concerned with correctly applying legal rules and doctrines.¹⁶ In this view, if judicial practices exhibit similarities, it is because judges must apply similar rules, and if they diverge, it is because the rules they apply differ. Judicial decisions ‘follow’ from the rules, and if judicial decisions applying the same rules differ from each other, then one of them must be legally ‘wrong’. Conversely, the realist model posits that judicial decision-making is determined by considerations that are not purely legal,¹⁷ such as economic and social mechanisms as well as inherited institutional structures and cultural attitudes.¹⁸ There is overwhelming empirical evidence demonstrating that constitutional adjudication is influenced by the policy

⁹ András Jakab, ‘The Reasoning of Constitutional Courts in Europe’, in *The Max Planck Handbooks in European Public Law*, ed. Armin von Bogdandy, Huber Peter M., and Christoph Grabenwarter, 1st ed. (Oxford University Press/Oxford, 2023).

¹⁰ Jakab, ‘The Reasoning of Constitutional Courts in Europe’, at 202–203.

¹¹ András Jakab, ‘Judicial Reasoning in Constitutional Courts: A European Perspective’, *German Law Journal* 14, no. 8 (2013): 1215–75, at 1224–26.

¹² Tuomas Ojanen, ‘Human Rights in Nordic Constitutions and the Impact of International Obligations’, in *The Nordic Constitutions: A Comparative and Contextual Study*, ed. Helle Krunke and Björg Thorarensen (Oxford, UK: Hart Publishing, 2018), 133–66.

¹³ Chapter 2, Article 19 of the Instrument of Government (*Regeringsformen*) of 1974, which is the central component of the Swedish constitution.

¹⁴ *References TBA*

¹⁵ Tamas Gyorfi, ‘The Politics of Constitutional Interpretation’, in *Research Handbook on the Politics of Constitutional Law*, ed. Mark Tushnet and Dimitry Kochenov, Research Handbooks in Law and Politics (Northampton: Edward Elgar Publishing, 2023), 199–213.

¹⁶ Frederick Schauer, ‘Formalism’, *The Yale Law Journal* 97, no. 4 (1988): 509–48.

¹⁷ Oliver Wendell Holmes, ‘The Path of the Law’, *Boston University Law Review* 78, no. 3 (1998): 699–715.

¹⁸ Jakab, Dyeve, and Itzcovich, ‘Introduction’, at 15.

preferences of individual judges as well as by institutional and strategic considerations that are not strictly ‘legal’ in nature.¹⁹

However, we do not claim that judicial decision-making is arbitrary or that constitutional rules and doctrines do not impose significant constraints on judges. Instead, our research design is based on the belief that constitutional rules and doctrines do not constitute the sole influences on judicial conduct. Judges are indeed influenced by non-legal considerations, but these are channeled through legal rules and concepts and constrained by the professional socialization of judges as well as the expectations of their audiences. These audiences include the broader legal community (both the legal professions and legal academia), politicians, the media, and the general public.²⁰ Therefore, we conceptualize judicial reasoning as an exercise in persuasion. We suggest that the opinion-writing practices of judges are determined by the interplay of three main factors: (1) the judges’ values and policy preferences, (2) the views of the judicial role held by the judges’ audiences, and (3) the judges’ skills in constructing arguments that align with their own preferences while remaining attuned to the expectations of their audiences.²¹

2. Specificities of the Nordic context

The Nordic countries offer a unique setting for the study of constitutional reasoning in courts for several reasons. Firstly, in Northern Europe, the traditional approach is that the primary interpreter of the constitution is the legislature. This places an expectation on the judges that they should give priority to the views of the present majority and only set them aside in cases where the conflict with the constitution is glaringly evident. This requirement of ‘manifest unconstitutionality’ was formally integrated into the Swedish Constitution until 2011, and it continues to be explicitly included in the Finnish Constitution.²² However, the current phrasing in the Swedish Constitution still reflects the traditional approach. The provision today provides that, when exercising judicial review, judges shall pay ‘particular attention to the fact that parliament is the foremost representative of the people’.

This legislature-centered approach to constitutionalism has significant institutional consequences. Firstly, none of the Nordic countries has a specialized constitutional court. Moreover, in Sweden and Finland there are two supreme courts: one for civil and criminal cases and another one for administrative cases, both with the power of judicial review. Indeed, the Swedish and Finnish legislatures did not anticipate that the courts would exercise their power of constitutional review actively, and they did not even introduce a mechanism to resolve conflicts between the two supreme courts, as that was not deemed necessary.²³

¹⁹ Jeffrey A. Segal and Harold J. Spaeth, *The Supreme Court and the Attitudinal Model Revisited*, 1st ed. (Cambridge University Press, 2002); Lee Epstein, William M. Landes, and Richard A. Posner, *The Behavior of Federal Judges: A Theoretical and Empirical Study of Rational Choice*, *The Behavior of Federal Judges: A Theoretical and Empirical Study of Rational Choice* (Cambridge, Mass: Harvard University Press, 2013).

²⁰ Nuno Garoupa and Tom Ginsburg, *Judicial Reputation: A Comparative Theory*, (Chicago; The University of Chicago Press, 2015).

²¹ Jakab, Dyeve, and Itzcovich, ‘Introduction’, at 18-19.

²² See art. 106 of the Finnish Constitution, and Chapter 11, Article 14 of the Swedish Instrument of Government.

²³ Eivind Smith, ‘Judicial Review of Legislation’, in *The Nordic Constitutions: A Comparative and Contextual Study*, ed. Helle Krunke and Björg Thorarensen (Oxford, UK: Hart Publishing, 2018), 107–32, at 116.

Secondly, there are other, non-judicial bodies that play an important role in interpreting the constitution. These non-judicial bodies are either formally part of the legislature, such as the constitutional law committees of the Finnish Parliament (*Perustuslakivaliokunta*) and of the Swedish Riksdag (*Konstitutionsutskottet*), or they are independent bodies, such as the Law Council (*Lagrådet*) in Sweden and the parliamentary ombudsmen in all Nordic countries. Indeed, in the Nordic context it is particularly evident that not all constitutional reasoning takes place in courts. Nevertheless, our focus is on constitutional reasoning in courts, which provide an important forum for discussing constitutional matters even in the Nordic context.

Constitutional reasoning is not confined solely to the constitutional review of legislative and executive acts. The constitution is applied and interpreted by courts even in cases where no norm conflict arises between the constitution and lower norms. Based on our results, however, it is more likely that those cases become landmark constitutional cases where a norm conflict is at stake. In fact, cases of norm conflict make up the vast majority of our sample, which consists of the 40 leading constitutional cases from the examined supreme courts.²⁴ Today, all Nordic courts possess the power of judicial review. Therefore, their systems of judicial review can unequivocally be classified as belonging to the decentralized model. However, they began to exercise this power during different historical periods and use it to varying degrees. The Norwegian system of judicial review is arguably the oldest in Europe and remains the most active among the Nordic countries,²⁵ with the Icelandic system being the second most active.²⁶ In contrast, Finland was the last Nordic state to allow its judges to review the constitutionality of legislation, which occurred in 2000. Table 1 provides a summary of the most significant facts for the historical development and the constitutional basis of (constitutional) judicial review in the Nordic countries.

²⁴ 258 of our 280 cases are judicial review cases (ie. have YES or NO as a value for variable N4), which is 92.14% of the total sample.

²⁵ Ragnhildur Helgadóttir, *The Influence of American Theories on Judicial Review in Nordic Constitutional Law* (Leiden, The Netherlands: Brill | Nijhoff, 2006); Kári á Rógvi, *West-Nordic Constitutional Judicial Review: A Comparative Study of Scandinavian Judicial Review and Judicial Reasoning*, 1. edition (Copenhagen: DJØF Publishing, 2013).

²⁶ Smith, 'Judicial Review of Legislation', at 113.

Table 1

	<i>Denmark</i>	<i>Finland</i>	<i>Iceland</i>	<i>Norway</i>	<i>Sweden</i>
Year of the constitution currently in force / last major constitutional reform	1849 / 1953	2000	1944	1814 / 1905	1974
First case when a piece of legislation was found to be unconstitutional	U 1999.841 H (Tvind case)	KKO 2004:26 (ordinary Supreme Court)	10 L&H 601 (1943)	UfL 1866, p 165 (Wedel Jarlsberg case)	TBA
Constitutional provision on the power of judicial review	no written provision, constitutional convention	Section 106 of the Constitution	no written provision, constitutional convention	constitutional convention until 2015, Art. 89 Const. since then	Chapter 11, Article 14 of the Instrument of Government

The Nordic courts have typically exercised considerable restraint in using the power of constitutional review, often deferring to the legislature.²⁷ Indeed, their system of judicial review has been labelled as ‘weak-form review’.²⁸ However, the Nordic model has been under stress during the past three decades. Some scholars have started to claim that the Nordic countries, all five of them, are today slowly moving from the weak form of constitutional review to a relatively stronger one.²⁹ The most common explanation provided for this development is that, since the 1990s, there has been a ‘progressive subordination’ to both branches of European law (European Union law and the European Convention of Human Rights).³⁰ This led to a stronger emphasis on human rights and general principles, departing from the approach dictated by Scandinavian legal realism that dominated Nordic legal thinking during the 20th century.³¹ More recent comparative research has, however, found that judicial expansion in the Nordic countries has coincided with institutional changes that enhanced judicial autonomy, and that these institutional reforms may have played a larger part in this expansion than previously appreciated.³² The accelerating pace of legislation and a new approach of enacting framework laws and general statutes, previously foreign to Nordic

²⁷ Wind and Follesdal, ‘Nordic Reluctance towards Judicial Review under Siege’.

²⁸ Wind and Follesdal, at 131; Ran Hirschl, ‘The Nordic Counternarrative: Democracy, Human Development, and Judicial Review’, *International Journal of Constitutional Law* 9, no. 2 (2011): 449–69, at 451; Iris Nguyễn Duy, ‘New Trends in Scandinavian Constitutional Review’, *Scandinavian Studies in Law* 61 (2015): 11–48, at 13.

²⁹ Nguyễn Duy, ‘New Trends in Scandinavian Constitutional Review’, at 23; Jaakko Husa, ‘Constitutional Mentality’, in *Nordic Law in European Context*, ed. Pia Letto-Vanamo, Ditlev Tamm, and Bent Ole Gram Mortensen, vol. 73, *Ius Gentium: Comparative Perspectives on Law and Justice* (Cham: Springer International Publishing, 2019), 41–60.

³⁰ Nguyễn Duy, ‘New Trends in Scandinavian Constitutional Review’, at 44.

³¹ Wind and Follesdal, ‘Nordic Reluctance towards Judicial Review under Siege’, at 139.

³² Anna Wallermand Ghavanini, Gunnar Grendstad, and Johan Karlsson Schaffer, ‘Institutions That Define the Policymaking Role of Courts: A Comparative Analysis of the Supreme Courts of Scandinavia’, *International Journal of Constitutional Law*, 2023, 1–28.

legislation, also contributed to a greater openness to the judicial process.³³ One of the goals of our project is to explore how these changes have impacted constitutional reasoning in the courts.

3. Methodological design

Our research adopts the conceptual and methodological framework elaborated by the CONREASON project, conducted between 2011 and 2016. This project developed a groundbreaking conceptual and methodological framework for a comprehensive and systematic analysis of constitutional reasoning in 18 supreme jurisdictions,³⁴ without, however, extending its geographical reach to Northern Europe. We utilize their freely available dataset to facilitate comparisons between the Nordic countries and the rest of the world. A follow-up of the CONREASON project, known as the CORE Latam project, has recently concluded in Latin America.³⁵ This project involved constitutional and supreme courts from 16 jurisdictions in the region, thereby enriching the available data and expanding the range of jurisdictions for comparison with our findings.

Our research aims to conduct a twofold comparative analysis: first, among Nordic countries, and second, between Nordic countries and other countries globally. One of the findings of the CONREASON project was that labelling countries such as Australia and the United States as being committed to ‘constitutional exceptionalism’ can be misleading, as every court can be exceptional in certain aspects. Indeed, the federal supreme courts of these two countries were found to be outliers in some respects but not in others.³⁶ Therefore, our primary research question can be formulated as follows: In what aspects is the constitutional reasoning of Nordic supreme courts exceptional? In other words, to what extent does the style of reasoning of Nordic supreme courts resemble that of other supreme courts around the world? To address this primary question, we employ a combination of qualitative and quantitative methods. The results of the quantitative analysis control and complement the results of the qualitative analysis and vice versa (this is known as triangulation). Both methods contribute to the identification of various argumentation patterns and also to achieve the highest level of comparability across the jurisdictions.

Due to the extensive number of cases in the long history of all Nordic supreme courts, conducting a comprehensive analysis of all constitutional decisions is not feasible. Therefore, a selection process was necessary. Following the CONREASON method,³⁷ we document the reasoning practices of each court based on its 40 leading cases. By ‘leading cases’ we mean cases where the rulings are deemed the most important in the legal community, without any restrictions on the year of the judgments. Selecting 40 cases represents a balanced approach, which allows for a thorough examination of every judgment while still providing a meaningful basis for comparison.

³³ Lindblom, ‘The Growing Role of the Courts’, at 287-288.

³⁴ Andras Jakab, Arthur Dyevre, and Giulio Itzcovich, eds., *Comparative Constitutional Reasoning* (Cambridge: Cambridge University Press, 2017).

³⁵ Their first results have been published in October 2023, in a Special Issue in Volume 78 of the *Austrian Journal of Public Law*.

³⁶ András Jakab, Arthur Dyevre, and Giulio Itzcovich, ‘Conclusion’, in *Comparative Constitutional Reasoning*, ed. András Jakab, Arthur Dyevre, and Giulio Itzcovich, 1st ed. (Cambridge University Press, 2017), 761–97, at 791.

³⁷ Jakab, Dyevre, and Itzcovich, ‘Introduction’, at 27.

Leading or landmark cases often shape a court's jurisprudence, serving as a lens through which observers recognize the defining traits of a court's approach to constitutional argumentation.³⁸ At the same time, the systematic analysis of non-salient cases may reveal different patterns. Consequently, the implications of our choice to focus on leading cases must be carefully reflected upon: our results show the style of constitutional reasoning in leading cases and not the 'average' patterns in the analyzed courts. For the selection of the 40 leading cases, we utilized a method commonly employed in social sciences: expert opinion. The selection was carried out by a constitutional scholar from each of the five Nordic countries, who was later also responsible for the quantitative and qualitative analysis of the selected cases.

We operated under the assumption that there is generally a relative consensus within the scholarly community regarding which decisions are considered leading judgments. To validate this assumption, each scholar was asked to designate five other constitutional law experts from their jurisdiction to review their choice of cases. These experts were then individually requested to express their agreement with the selections made. In the letter sent to all 25 experts, we included the instructions that the project participants received for selecting the leading cases. These instructions outlined the criteria for choosing the 'canon of cases' that they consider to be the 'most well-known' or 'most important' within the legal (scholarly and/or judicial) community. In essence, they were expected to guess about the general (mainstream) scholarly opinion on the list of 40 leading judgments. Possible proxies for the selection included: (1) cases typically found in textbooks on domestic constitutional law, (2) cases frequently cited in scholarly literature, and (3) cases that are often relied upon as precedents by the analyzed court itself. However, it was specified that none of these three proxies alone would be decisive. The selection process was to carefully consider a combination of all three factors.³⁹

Most scholars (22 out of the 25) who agreed to be our experts submitted their opinions. The experts unanimously ratified 89% (246) of the cases on the proposed lists of leading judgments and only 0.7% (two) were ratified by a minority. Gwet's AC₁⁴⁰ (which is a chance corrected agreement coefficient ranging from -1 to 1, where a value around 0 is expected by chance and the range 0.8-1.0 is considered to be "almost perfect") also averaged 0.94 for the seven courts with the minimum as high as 0.86 (for Iceland). The highest level of consensus is observed in Finland (0.98 for the ordinary Supreme Court and 1.0 for the Supreme Administrative Court), which might not be surprising, given the short time frame of the Finnish cases, all of which were decided under the new Constitution adopted in 2000. This limited time frame constrained the selection of cases that could be classified as 'leading constitutional cases'. Nonetheless, even though we employed the same method and were exposed to the risk of a framing effect,⁴¹ our results revealed a significantly higher level of

³⁸ Jakab, Dyeve, and Itzcovich, 'Introduction', at 27.

³⁹ The instructions also mandated disregarding the specific issues covered by the cases when preparing the leading cases. The sole requirement was that all cases must contain constitutional reasoning. This implies that the project participants should not attempt to make the list representative of constitutional cases in general. For example, they should not focus on including a certain number of fundamental rights cases or ensuring that the list covers diverse constitutional matters, concepts or argumentation styles. Doing so would have introduced a bias in our dataset.

⁴⁰ Kilem Li Gwet, 'Computing Inter-Rater Reliability and Its Variance in the Presence of High Agreement', *British Journal of Mathematical & Statistical Psychology* 61, no. 1 (2008): 29–48.

⁴¹ Amos Tversky and Daniel Kahneman, 'Rational Choice and the Framing of Decisions', in *The Limits of Rationality*, ed. Karen Schweers Cook and Margaret Levi (University of Chicago Press, 1990), 60–89.

consensus among the experts regarding the leading cases in the Nordic countries compared to other jurisdictions. In our parent project, only 63% of all cases were unanimously ratified by all the experts.⁴² This can be attributed to two factors. First, the total number of cases containing constitutional reasoning is much more limited in the Nordic countries, with the possible exception of Norway, than in other parts of the Western world. Indeed, out of 2,308 published judgments in civil and criminal cases from the Swedish ordinary Supreme Court between 1991 and 2016, only 227 can be classified as ‘constitutional’ in the broad sense, as they contain references to the basic laws.⁴³ Second, the Nordic countries have small legal and scholarly communities and a relatively homogeneous legal culture.⁴⁴

As regards the qualitative element of the research, we organized two webinar series to discuss the legal, political, and social context of constitutional reasoning in each of the five Nordic countries. As to the quantitative pillar, all data were collected in Excel sheets and then imported into R⁴⁵ where the statistical analysis was conducted. We encoded information on a number of general and argumentative characteristics, repeating this for every leading case. Our dataset therefore consists of a summary of the characteristics of 280 landmark Nordic constitutional cases. We conducted pilot research to test our methodology in the Nordic context and refine our variables and the instructions for coding. The pilot included an inter-coder-reliability analysis, in which 42 cases were pairwise coded by six project participants. The analysis indicated that 72% (64 out of 89) nominal variables were coded “almost perfectly” (Gwet’s AC₁), while a few variables posed challenges. Specifically, the inter-coder reliability for the variable measuring the frequency of arguments invoking a concept or principle not mentioned in the constitution (N20) was only ‘fair’ (0.2-0.4). This outcome was hardly surprising, given that the reliability tests were conducted by constitutional scholars from different jurisdictions who lacked in-depth knowledge of each other’s constitutional systems. Additionally, the inter-coder reliability was found to be ‘moderate’ (0.4-0.6) in relation to seven variables, including the structure of argument variable, three types of arguments, and three key concepts. These findings were thoroughly discussed by all project participants during a two-day workshop held in Örebro in order to refine the instructions provided in the Codebook. Furthermore, during the analysis, distinctive characteristics of the Nordic constitutional systems were identified. These unique features prompted us to introduce new variables and establish subcategories for the existing binary ones.⁴⁶

The variables cover not only argument types and key concepts, but also 11 general characteristics of each case, which may be used as independent variables. The variables fall in four broad categories:

⁴² Jakab, Dyeve, and Itzcovich, ‘Introduction’, at 29.

⁴³ This data has been obtained from Johan Lindholm, Mattias Derlén, and Daniel Naurin. 2023. Swedish High Court Database (version 0.9.1, 1 May 2023).

⁴⁴ Reference TBA

⁴⁵ R Core Team (2023). *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing. Vienna, Austria. <https://www.R-project.org/>.

⁴⁶ See our Codebook at In total, we used 53 variables (56 for the two Swedish Supreme Courts), compared to the 37 variables used in the CONREASON Project. Out of our variables, 27 are binary, while the rest are categorical variables.

Table 2

<i>Categories of variables:</i>	<i>Examples of variables:</i>
(1) general characteristics of the case (11 in total)	• year • dissenting or concurring opinions • general topic • type of dispute • panel formation
(2) arguments used in the case (20 in total)	• structure of argument • non-interpretative arguments, such as establishing or discussing the text of the constitution and analogical reasoning • interpretative arguments, such as literal, systematic, teleological reasoning, harmonizing with international law, precedent-based arguments, non-legal arguments, reference to scholarly work and foreign law, etc.
(3) key concepts and generic constitutional doctrines used in the case (21 in total)	• rule of law • democracy • sovereignty • government form • proportionality • human dignity • equality • freedom of expression • transparency
(4) measurement variables (2)	• overall weight of arguments • implicit use of concepts

We study univariate distributions (typically proportions) and bivariate correlations both within or in comparison between Nordic courts (or countries). The analysis is employed on a within or between subgroups (typically administrative and non-administrative cases) level, or are undertaken with regards to the subgroup (e.g. controlling for country, how administrative and non-administrative cases differ in the Nordic region).

Comparisons are also made between the Nordic courts/countries/region and other international courts or legal systems and several of the analyzes are based on various types of regression models. Part of the analysis are undertaken on an aggregate court data level (e.g. the average proportions of argumentation vs conceptualization between international courts) and potential underlying patterns in the data are explored via dimensional reduction and clustering techniques.

Trends over time are also analyzed. The most recent Nordic cases are from the year 2022, while the oldest (Danish) case dates back to 1920.⁴⁷ However, the distribution – as observed in the CONREASON and CORE Latam projects – is highly skewed, with only eight cases from before 1970. Therefore, in our statistical analysis, we usually approximate the growth of the number of leading cases as exponential over time and employ a log-transformed scale⁴⁸ but always interpret the results in terms of the back-transformed actual year.

When utilizing confidence intervals, we always employ double-sided intervals with a confidence level of 95%. Similarly, in null hypothesis testing, we consistently use a significance level of 0.05. Whenever possible, we also opt for two-tailed alternative hypotheses.

In a typical test situation with a two-sample t-test of difference in proportion (or correspondingly a chi-square test of independence given a two-by-two contingency table) where the null hypothesis is that the proportions of a binary variable in two courts (each with 40 observed cases) are the same, the type II error (that is, one minus the power) of the test depends on the two true underlying proportions as exemplified in table 3:

Table 3: The type II error of a chi-square test of independence between a binary variable and two courts (each with n=40 observations)

		True proportion(%) in first court										
		0	10	20	30	40	50	60	70	80	90	100
True proportion(%) in second court	0	-	0.46	0.15	0.04	0.01	0	0	0	0	0	0
	10	0.46	-	0.76	0.39	0.13	0.03	0	0	0	0	0
	20	0.15	0.76	-	0.82	0.5	0.2	0.05	0.01	0	0	0
	30	0.04	0.39	0.82	-	0.84	0.55	0.23	0.05	0.01	0	0
	40	0.01	0.13	0.5	0.84	-	0.85	0.57	0.23	0.05	0	0
	50	0	0.03	0.2	0.55	0.85	-	0.85	0.55	0.2	0.03	0
	60	0	0	0.05	0.23	0.57	0.85	-	0.84	0.5	0.13	0.01
	70	0	0	0.01	0.05	0.23	0.55	0.84	-	0.82	0.39	0.04
	80	0	0	0	0.01	0.05	0.2	0.5	0.82	-	0.76	0.15
	90	0	0	0	0	0	0.03	0.13	0.39	0.76	-	0.46
	100	0	0	0	0	0	0	0.01	0.04	0.15	0.46	-

⁴⁷ Case U1921.148H decided by the Danish Supreme Court on 11 December 1920.

⁴⁸ Typically we use $-\log(\text{age of case since today})$, or similarly $-\log(2023 - \text{year of case})$, to measure the year of a case. The appropriateness is confirmed in modelling by estimates of the Box-Cox lambda parameter being about 0, see also Box, George E. P.; Cox, D. R. (1964). "An analysis of transformations". *Journal of the Royal Statistical Society, Series B*. 26 (2): 211–252.

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For a detailed overview of the undertaken descriptive and inferential statistical analyses, please refer to our methodological working paper.