
The Growing Complexity of the International Court of Justice's Self-Citation Network

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Abstract

Using state-of-the-art information extraction, this article identifies 1,865 references in judgments of the International Court of Justice (ICJ) between 1948 and 2013 to its own decisions or those of its predecessor. We find that the ICJ's self-citation network becomes increasingly complex. Citations are used more frequently, and precedents grow more diverse. Two drivers fuel this development. First, subject matter concentration clusters citations in 'classic' international law areas as the ICJ places increased emphasis on the legacy, expertise and predictability of its 'settled jurisprudence' in asserting its role among competing adjudicatory venues. Second, issue diversification expands citations as disputants increasingly craft their arguments around precedent, making ICJ litigation more common law-like. This translates into more complex litigation as precedent is predominantly used argumentatively to affect outcomes rather than ritualistically to pay tribute to past decisions. Although the growth of citations is an institutional achievement underscoring the Court's continued relevance, it also creates new access-to-justice barriers.

1 Introduction

Citation networks are prisms for the empirical study of international courts.¹ How, when and why a court cites (or does not cite) judicial decisions is not only an expression

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¹ Romano, 'Deciphering the Grammar of the International Jurisprudential Dialogue', 41 *New York University Journal of International Law and Politics* (NYUJLP) (2008) 755; Zammit Borda, 'The Direct and Indirect Approaches to Precedent in International Criminal Courts and Tribunals', 14 *Melbourne Journal of International Law* (2013) 608. The recent, large-scale empirical analysis of legal citations has its origins in the analysis of domestic courts. See, e.g., Fowler *et al.*, 'Network Analysis and the Law: Measuring the Legal Importance of Precedents at the U.S. Supreme Court', 15 *Political Analysis* (2007) 324; Fowler and Jeon, 'The Authority of Supreme Court Precedent', 30 *Social Networks* (2008) 16.

of varying attitudes towards precedential reasoning but also a reflection of how a court chooses to use jurisprudential materials to interact and communicate with its constituencies and institutional surrounding.² The mapping of the citation patterns of courts and tribunals thus promises a better understanding of international adjudicatory institutions, their interplay with each other and the evolution of their judicial practice over time.³ In this article, we investigate one such web of judicial references that has hitherto escaped quantitative empirical scrutiny – the self-citation network of the International Court of Justice (ICJ) – to shed new light on the evolving citation practice of the World Court, exploring its causes and consequences.

By employing state-of-the-art computer-based information extraction techniques, we investigated 126 ICJ judgments between 1948 and 2013 and identified 1,865 instances in which the Court refers to its prior decisions or that of its predecessor, the Permanent Court of International Justice (PCIJ). We found that the ICJ citation network has changed significantly over time. In contrast to other international courts, the ICJ's leading cases, in terms of the number of citations they attract, are not concentrated in its early years. Instead, our analysis comes to the surprising conclusion that the period commonly associated with the Court's legitimacy crisis – the 1960s through the mid-1980s when its caseload fell to an all-time low – is actually the time when the Court produced its most influential decisions. More generally, since the late 1990s and early 2000s, parties and the Court cite earlier decisions more frequently and on an ever-broader set of issues, making litigation before the ICJ increasingly common law-like. Even early PCIJ cases, long buried in precedential obscurity, are being resurrected to new life. As precedent becomes more important and the web of cited and citing cases grows in scope, diversity and density, the ICJ's self-citation network has become increasingly complex.

We offer two main explanations for these evolving patterns. First, the Court's jurisprudence has been concentrated over time in 'classic' international law areas, which has increased cross-references and channelled them to past ICJ decisions of the 1960s to 1980s that played a crucial role in developing these fields of international law. We also argue that, rather than a random occurrence, this clustering of citations is, at least in part, an institutional strategy used by the Court to assert its position among competing adjudicatory venues by emphasizing the legacy, expertise and predictability of its precedent-based 'settled jurisprudence' on classic international law matters.⁴ Second, issue diversification has also shaped citation patterns as newer

² Citation networks are thus of interest to both lawyers and political scientists and a particularly promising area for interdisciplinary research. See also Pauwelyn and Elsig, 'The Politics of Treaty Interpretation: Variations and Explanations across International Tribunals', in J.L. Dunoff and M.A. Pollack (eds), *Interdisciplinary Perspectives on International Law and International Relations: The State of the Art* (2013) 445, at 456.

³ For a more detailed discussion, see section 2 below.

⁴ 'Settled jurisprudence' is the preferred term of the Court to refer to its own consistent case law. See, e.g., *Fisheries Jurisdiction (United Kingdom v. Iceland)*, Jurisdiction, 2 February 1973, ICJ Reports (1973) 3, para. 12; *Aegean Sea Continental Shelf (Greece v. Turkey)*, Jurisdiction, 19 December 1978, ICJ Reports (1978) 3, para. 15; *United States Diplomatic and Consular Staff in Tehran (United States of America v. Iran)*, Judgment, 24 May 1980, ICJ Reports (1980) 3, para. 33; *Interpretation of the Agreement of 25 March 1951 between the WHO and Egypt*, Advisory Opinion, 20 December 1980, ICJ Reports (1980) 73, at para. 33; *Arrest Warrant of 11 April 2000 (Democratic Republic of the Congo v. Belgium)*, Judgment, 14 February 2002, ICJ Reports (2002) 3, para. 26.

decisions reference a broader range of precedents and resurrect old ones. We argue that this is primarily driven by disputants that craft their arguments more actively around precedent on a growing number of crosscutting jurisdictional, procedural and substantive issues to gain an upper hand in litigation, thereby adding a stronger common law component to dispute settlement before the ICJ.

The expansion, growing density and diversity of the ICJ's self-citation network also has consequences for ICJ litigation. We show that most citations are being used argumentatively by the parties to persuade the judges, or by the judges to persuade the parties, rather than ritualistically to restate uncontroversial elements of the law. The argumentative usage of precedent translates the growing complexity of the ICJ's self-citation network into a growing complexity of ICJ litigation insofar as counsel and judges need to grapple with a larger and wider pool of precedential arguments in the resolution of a dispute than ever before. On the one hand, this trend is an institutional achievement as the increasing reliance on the ICJ's past decisions lends continuing relevance to the Court's dispute-settling and law-developing functions.⁵ On the other hand, it also gives rise to access-to-justice concerns as low-capacity countries will find it increasingly difficult to navigate the ever-denser maze of ICJ case law. We suggest that better open-access online platforms providing legal analytics of the ICJ's jurisprudence are a promising way to help reduce the complexity of the Court's self-citation network.

This article is structured as follows. We begin by introducing the growing literature on empirical citation analysis of international courts. We then turn to our own approach, presenting the extraction algorithm and citation database created for this project. Subsequently, we use our database to provide a concise overview of the ICJ's citation network, highlighting its expansion over time. In the remainder of the article, we then investigate the causes and consequences of this increase in citations, identifying the drivers of growth and evaluating its impact on litigation by distinguishing between an argumentative and a ritualistic use of precedent. We conclude by outlining a future research agenda to further explore and explain citation patterns in ICJ judgments.

2 Empirical Analysis of Judicial Citations

Citation networks offer new opportunities for the empirical study of the practice of international tribunals. From the Court of Justice of the European Union (CJEU),⁶ to

⁵ Commentators typically distinguish between two different functions exercised by the Court: a dispute resolution and a law-developing function. See, e.g., Sands, 'What Is the ICJ for', 35 *Revue Belge de Droit International* (2002) 537, at 538; Donoghue, 'Role of the World Court Today', 47 *Georgia Law Review* (2012) 181, at 191.

⁶ Yannis Panagis and Urska Sadl, for instance, used network analysis to trace the self-citations of the Court of Justice of the European Union (CJEU) and found that it tends to use citations of precedent ritualistically. See Panagis and Sadl, 'Making EU (Case) Law: Evidence from a Paragraph-to-Paragraph Network on the Cases Concerning the Citizenship of the European Union' (2010), available at www.karlbranting.net/law-and-big-data-workshop/LawBD-2015_submission_3.pdf. Mattias Derlén and colleagues mapped the CJEU's jurisprudence and showed that traditional distinctions offered in European Union (EU) law textbooks on the structure of EU law do not adequately reflect the distinctions observable in the Court's own practice. See Derlén *et al.*, 'Coherence out of Chaos: Mapping European Union Law by Running Randomly through the Maze of CJEU Case Law', 3 *Europarättslig Tidskrift* (2012) 517, at 531.

the International Criminal Court,⁷ or the World Trade Organization (WTO),⁸ international lawyers have begun to mine such citations networks in order to track a court's use of precedential reasoning and to trace the influence of its judicial decisions on later cases and legal developments. Political scientists, in turn, have mapped the references of international courts to investigate the strategic use of citations by international law actors, such as states or international judges.⁹ Large-scale citation analysis has thus become a promising new means to empirically study the evolution of international law, precedent and judicial institutions.

Quantitative citation analysis, however, also comes with a set of caveats. First, citations are ambiguous as courts may cite to follow, acknowledge, distinguish or disagree with prior cases. Second, as Joost Pauwelyn and Manfred Elsig put it, 'there is a difference between referring to precedent and generally feeling bound by it'.¹⁰ When used ritualistically or formalistically to merely restate the law, citations have little or no impact on judicial reasoning or can even be misleading as courts pay lip service to precedent while flouting it. Third, as important as the decisions cited are also those that a court chooses not to cite. Strategic (non)-citations can thus provide smokescreens to hide radical changes to the law. In short, citations are tools for strategic communication as much as they are sources for legal reasoning, and citing cases is not the same thing as following precedent. That is why empirical citation analysis is at its best when it strives not only to trace when a prior case is cited but also to investigate how and why it is referenced. If done carefully, the empirical analysis of self-citation networks can reveal new and interesting insights about the inner workings of international courts and tribunals and their evolving practice.

In contrast to the self-citation networks of other international tribunals that have been comprehensively explored in recent scholarship,¹¹ to the best of our knowledge, no similar analysis has so far been conducted with respect to the ICJ. Prior work on the ICJ's citations has instead focused on subsets of its cross-references¹² or chartered the

⁷ Manley, 'Referencing Patterns at the International Criminal Court', 27 *European Journal of International Law (EJIL)* (2016) 191. Tarissan and Nollez-Goldbach, 'Analysing the First Case of the International Criminal Court from a Network-Science Perspective', 4 *Journal of Complex Networks* (2016) 616.

⁸ Pauwelyn, 'Minority Rules: Precedent and Participation before the WTO Appellate Body', in L. Nielsen et al. (eds), *Judicial Authority in International Economic Law* (2016) 141.

⁹ For instance, Yonatan Lupu and Eric Voeten looked at factors that might explain why European Court of Human Rights (ECtHR) judges cite more or less authorities in their judgments, finding that ECtHR judges used citations strategically depending on the cases and audience. Lupu and Voeten, 'Precedent in International Courts: A Network Analysis of Case Citations by the European Court of Human Rights', 42 *British Journal of Political Science* (2012) 413. For Krzysztof Pelc, for instance, citations are empirical evidence of states' strategic use of precedent before the World Trade Organization (WTO). See Pelc, 'The Politics of Precedent in International Law: A Social Network Application', 108 *American Political Science Review* (2014) 547.

¹⁰ Pauwelyn and Elsig, *supra* note 2, at 456.

¹¹ See notes 6 to 9 above.

¹² André Nollkaemper, for instance, attempted to count all citations to domestic cases in the jurisprudence of the Court, investigating whether international courts were, as has been claimed, increasingly engaged in judicial dialogue and finding only a few instances of such dialogue with domestic courts. See Nollkaemper, 'The Role of Domestic Courts in the Case Law of the International Court of Justice', 5 *Chinese Journal of International Law (CJIL)* (2006) 301.

role of precedent before it without engaging in its systematic numerical assessment.¹³ Only Tom Ginsburg briefly noted that the ICJ cited itself in a quarter of its judgments and decisions between 1948 and 2002, concluding ‘that precedents might have a practical role, if not a formal one, in international decision-making’.¹⁴ Yet, overall, the ICJ’s citation network remains empirically largely unexplored.

This article will thus embark on the first comprehensive analysis of the ICJ’s self-citations. We aim at offering a preliminary exploration of its most striking patterns using a new dataset of ICJ self-citations in order to showcase the usefulness of empirical citation analysis for better understanding the ICJ. We thereby hope to set the stage for future investigations into other aspects of the ICJ’s citation network from its references to other courts to the differences in citation behaviour between ICJ majority and minority decisions.

3 Citation Extraction Process

A major reason why comprehensive empirical scholarship on ICJ citations has been scarce is the difficulty in obtaining citation data. While both free and commercial services provide information on cross-citations in European Union law, investment law or trade law, no similarly sophisticated service is offered for ICJ cases. As part of our research, we thus first had to extract citations from ICJ judgments. In order to investigate the ICJ self-citation network, we collected all ICJ majority opinion judgments from 1948 up to 2013, which resulted in an ICJ case database of 142 plain text documents. For our citation analysis, we eliminated all duplicate judgments from the database, which involved different claimants but otherwise identical texts,¹⁵ resulting in 126 unique ICJ judgments.¹⁶

The majority opinions were downloaded from worldcourts.com (an international case law database) and converted into txt files.¹⁷ We also retrieved the metadata of these cases (name, parties, date and so on) from the same source. Metadata for PCIJ cases, which we considered as self-references in ICJ judgments for the purpose of this study, were added manually to the same database. As a last step, each opinion was

¹³ M. Shahabuddeen, *Precedent in the World Court* (1996).

¹⁴ Ginsburg, ‘Bounded Discretion in International Judicial Lawmaking’, 45 *Virginia Journal of International Law* (2004) 631, at 639.

¹⁵ E.g., the *Legality of the Use of Force* cases resulted in eight formally different but substantively identical judgments. *Legality of the Threat or Use by a State of Nuclear Weapons*, Advisory Opinion, 8 July 1996, ICJ Reports (1996) 66.

¹⁶ In addition, and in order to capture all citations, we kept track of (and assigned an individual identification to) all orders for provisional measures, counter-claims and interventions issued by the Court since its inception, for a total of 261 different documents. Some decisions on request for intervention took the form of judgment and were part of the analysis (e.g., Nicaragua’s permission to intervene in *Land, Island and Maritime Frontier Dispute (El Salvador/Honduras)*, Application to Intervene, 13 September 1990, ICJ Reports (1990) 92); others were orders and did not.

¹⁷ Some cases were unavailable in English from worldcourts.com and were then downloaded directly from the International Court of Justice’s (ICJ) website as pdf files, and converted into txt files using a Python script.

assigned a single, five-digit identification, though twin cases (such as the *Legality of the Use of Force*) and two-phase judgments (such as the two jurisdictional judgments in *Barcelona Traction*) were assigned the same identification, lest the number of citations to any single judgment be artificially reduced. Except in these circumstances, different judgments in the same case (say, a jurisdiction judgment and a merits judgment) would be assigned two different identifications.¹⁸

From this database, we created a csv document that contained the regular expressions that were used to parse the majority opinion txt files.¹⁹ Since the Court varied in its citation practice, sometimes citing the whole name of a case, sometimes only its parties or its ‘ICJ Reports’ reference,²⁰ each judgment gave rise to several regular expressions to capture the various ways in which it could be cited. For instance, for the judgment on the *Request for Interpretation of the Judgment of 15 June 1962 in the Case Concerning the Temple of Preah Vihear (Cambodia v. Thailand)*,²¹ these three regexes were created and assigned to the judgment’s unique identification:

- `[(\sCambodia(\s(\s)?v.\s|\/)Thailand.+?Report(s)?(\s(\s)?2013`
- `Judgment\s\of\s11\sNovember\s2013\s[-]\sRequest\sfor\sInterpretation\s\of\s\the\sJudgment\s\of\s15\sJune\s1962\s\in\s\the\sCase\sconcerning\s\the\sTemple\s\of\sPreah\sVihear.+?Report(s)?(\s(\s)?2013`
- `2013.+?Cambodia(\s(\s)?v.\s|\/)Thailand`

In addition, several ‘simplified’ regexes were added to enlarge the ambit of the searching script in order to capture all citations, including those that could not be automatically matched to a case due to their ambiguity.²² The idea was to be able to capture these cases, even if subsequent assignment to the proper case identification would have to be done manually.²³ Once these preliminary preparations were achieved, a Python script parsed the text files that contained the judgments. The script proceeded by:

- detecting the name of the case analysed and its identification using the regexes;²⁴
- collecting all paragraphs;

¹⁸ *Legality of Nuclear Weapons*, *supra* note 15; *Barcelona Traction Light and Power Company Limited (Belgium v. Spain)*, Jurisdiction, 5 February 1970, ICJ Reports (1970) 3.

¹⁹ Regular expressions (regexes) are coded search terms that are used in Python to catch any text that could enter their scope. For example, the regular expression ‘db.t’, with the symbols ‘d’ and ‘.’ meaning respectively ‘any number’ and ‘any character,’ would catch the words ‘3bit’ or ‘4bit’ in the text searched by the Python script, but not ‘rabbit’.

²⁰ Although most of these regexes were created automatically by a Python script using the metadata of the cases database, some cases received additional regexes on account of the shortened name we observed as common in the citation practice of the Court; thus, regexes such as ‘*Barcelona*\s*Traction*’ or ‘*ELSI*’ were added to the list on account of the Court’s practice of using these shortened names.

²¹ Judgment, 11 November 2013, ICJ Reports (2013) 281 (*Temple of Preah Vihear*).

²² These regexes would take the simplest form by which a case may be cited, either by its name (Armed\sActivities\s\on\s\the\sTerritory\s\of\s\the\sCongo) or by the year in the ICJ Reports.

²³ We collected all citations, including citations submitted by the parties, which commonly appear when the Court gives a summary of a party’s argument, in addition to the citations by the Court *sua sponte*. In section 5.B.2 below, we manually coded the citations found in the parties’ arguments.

²⁴ This point was relevant in order to discard intra-case citations – for example, citations from the Merits to the Jurisdiction phase of a case.

- parsing these paragraphs for anything that might hint at a citation (such as 'ICJ Reports', 'v.' and so on);
- cutting these paragraphs in as many citations as they contained;
- listing all citations;
- assigning these citations an identification using the regexes; and
- placing these citations, together with the surrounding information (paragraph number and text, identification of the cited case and so on), in a csv document.²⁵

To the extent that some citations had been collected without a proper identification being assigned to them, we made corrections manually.²⁶ The resulting citation database contains all of the citations collected and stores them in the form of an excel row detailing the identifications of the citing and cited case, the paragraph of the citing case, the paragraph number of the citing case and the cited case (when extant), and the formal citation from the citing case's paragraph.

4 The ICJ's Self-Citation Network: An Overview

Using our citation database, we investigated the citation network of 126 ICJ majority judgments spanning from 1948 to 2013. [Figure 1](#) depicts the distribution of these judgments over time. The Court was busiest in 1950 with six judgments rendered. Subsequently, fewer cases were brought to the ICJ, and from the mid-1960s to the 1980s, the Court only rendered one judgment per year on average, marking its all-time low. Pace picked up again in the 1990s, and the ICJ has been relatively busy ever since, deciding at least two cases on average per year.

Overall, 101 out of 126 ICJ cases (80 per cent) in our database refer to prior ICJ or PCIJ judgments.²⁷ The remaining 25 out of the 126 cases (20 per cent) in which we did not detect any self-citations, are concentrated in the Court's early years, with citations becoming virtually ubiquitous in more recent decades. This makes self-citations a highly prevalent phenomenon in ICJ judgments and much more widespread than earlier studies suggest.²⁸ In total, we identified 2,049 citations in these 101 judgments. We exclude from that count the 117 citations referring to ICJ orders rather than judgments, 64 citations relating to non-ICJ decisions and three references to separate or

²⁵ A second csv document collected metadata about this process (number of paragraphs listed, number of paragraphs containing a citation and so on) in order to spot any obvious mistake in the process. These mistakes would arise, for example, out of errors from worldcourts.com in transcribing the Court's document into a text file.

²⁶ For example, as the script looked for any instance of 'v.', several citations to arbitration cases were collected but had no particular identification to receive.

²⁷ This number does not change if we only consider self-references to other ICJ reports rather than ICJ and Permanent Court of International Justice (PCIJ) reports.

²⁸ Ginsburg, *supra* note 14. According to him, only 26% of ICJ cases cite previous ICJ judgments between 1948 and 2001. Adjusted for the time frame, we found 75% of cases containing self-citations. The difference between these results may be due to different citation identification and extraction strategies. As explained above, we accounted for a variety of different citation styles, which allowed us to capture potentially more citations.

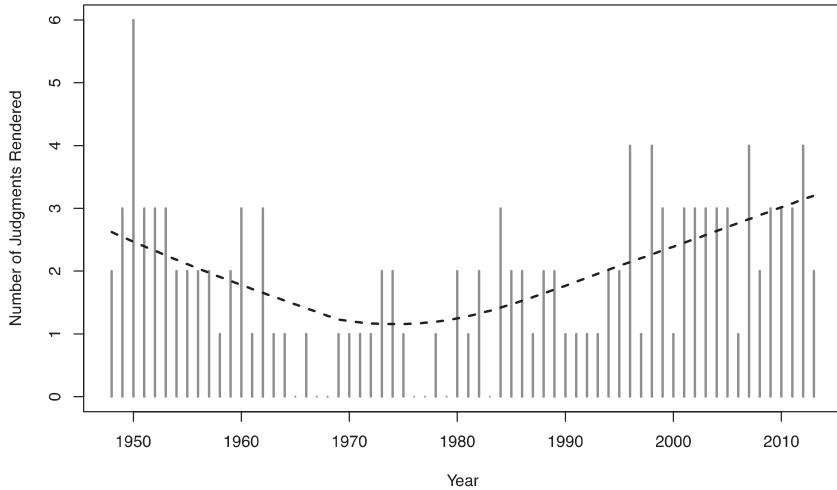


Figure 1: Annual Number of ICJ Judgments Rendered (with trend line). Note that formally separate judgments involving different claimants, but which concern identical disputes and were rendered on the same day, are counted as one. The black-dotted line plots a trend line (locally weighted scatterplot smoothing [LOWESS]) through the data.

dissenting opinions invoked by the parties, which leaves us with 1,865 self-citations. The overwhelming majority of these citations target ICJ judgments. References to PCIJ decisions make up only 11 per cent of the citation network. Overall, 111 ICJ judgments and 45 PCIJ decisions are invoked as precedent.

The absolute number of ICJ cases and citations is relatively low if contrasted with the datasets collected by Mattias Derlén and colleagues (32,337 citations between 8,261 CJEU cases)²⁹ and Yonatan Lupu and Eric Voeten (16,863 relevant citations between 2,222 European Court of Human Rights [ECtHR] cases),³⁰ but it is closer to the number collected by Pauwelyn with respect to the Appellate Body (2,957 citations between 108 WTO's Appellate Body reports).³¹ In terms of the average number of citations, however, the ICJ, with an average of 14.8 self-citations per judgment, stands between the CJEU (average of 3.91 citations per judgment) and the ECtHR (7.59 citations per judgment) and the WTO's Appellate Body (27.4 citations per judgment).³²

ICJ cross-references form a complex and dense network. On a dedicated web page, we visualized the ICJ's self-citations as a network graph where every judgment in our database was a 'node' and every citation was a link (or 'edge') between these nodes.³³ The network analysis' sorting software clusters cases together that often cite each other and places authorities (that is, cases that attract many citations) at the centre.³⁴

²⁹ Derlén *et al.*, *supra* note 6, at 520.

³⁰ Lupu and Voeten, *supra* note 9, at 424.

³¹ Pauwelyn, *supra* note 8, at 143.

³² *Ibid.*

³³ See ICJ Network, available at <http://ejil.org/ICJ/>.

³⁴ We used the software Gephi to draw the maps from the data we collected and, in particular, the Force Atlas 2 algorithm. See Jacomy *et al.*, 'ForceAtlas2, a Continuous Graph Layout Algorithm for Handy Network Visualization Designed for the Gephi Software', 9 *PLoS ONE* (2014) 6.

As may be expected, judgments cluster by their type of proceedings: jurisdiction, merits and advisory opinions. Advisory opinions, in particular, often raise different procedural and legal questions than judgments on jurisdiction or merits. Nevertheless, there were a considerable number of cross-citations between these clusters as decisions of different types refer to each other.

To further dissect the ICJ's citation network, we looked at citing and cited cases separately. For a citing judgment, a citation counts as an outward citation. Conversely, for a judgment being cited, the same citation counts as an inward citation. Figure 2 plots these two types of citations as three-year moving averages to better illustrate their underlying trends over time. With respect to outward citations, we saw a steady increase of annual citations over time. ICJ judgments in the 1950s and 1960s seldom cited earlier PCIJ or ICJ decisions. Only in the 1980s, and, particularly, in the 1990s, did references to prior case law become widespread. Indeed, half of all outward citations are concentrated in judgments issued after 2002. This growth in outward citations is consistent with most other studies on judicial citation networks, which find an increase in the number of citations across time; one explanation being that as jurisprudence accumulates newer cases have more precedents to cite.³⁵

Concerning inward citations, we observed a hump-shaped trend. While it is common in citation networks that older cases attract more citations simply because they have had more time to accumulate them, this effect is less pronounced in the realm of the ICJ. In the WTO, for instance, early Appellate Body reports, such as *US – Gasoline*,

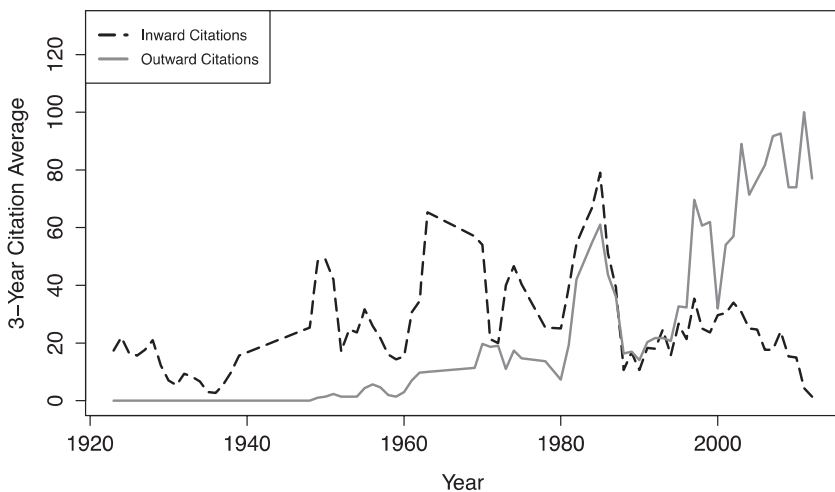


Figure 2: Three-Year Moving Average of Annual Inward and Outward Citations. Note that this figure displays the cumulative number of citations per year smoothed as a three-year moving average. This representation of the data was chosen to emphasize the trend underlying both types of citations. Since we only investigate citations in ICJ judgments, outward citations are only counted from 1948 onwards. Inward citations, however, also include PCIJ decisions cited by the ICJ for the purpose of this study.

³⁵ Pauwelyn, *supra* note 8, at 152.

EC – Bananas or *Japan – Alcohol* rank among the most cited precedents.³⁶ In contrast, cases from the PCIJ era or the early days of the ICJ attract relatively few citations. Instead, inward citations peak in the ICJ judgments of the 1960s and 1980s. This yields an interesting paradox; during a period when the Court was in crisis, being accused of having a pro-Western bias and receiving the lowest number of new cases submitted in its history,³⁷ it also generated its most influential precedents.

Within the group of inward and outward citations, the distribution of citations is unequal: some cases cite or are being cited much more than others. This is consistent with studies of other citation networks.³⁸ In terms of outward citations, only 21 judgments (out of 126) total 50 per cent of all collected citations, and 16 of these were decided after 1996. In terms of inwards citations, 27 judgments (out of 156) total 50 per cent of all citations. Table 1 lists the top 10 cases with respect to inward and outward citations. While the 1969 *North Sea Continental Shelf* case is by far the most-cited precedent with 98 citations, the 2012 *Territorial and Maritime Dispute (Nicaragua v. Colombia)* is the judgment that most often cites other decisions with 77 references.³⁹

The outward and inward citation networks differ starkly in their distribution. Inward citations are dominated by the 1969 *North Sea Continental Shelf* case, which has more inward citations than the second and third most cited cases combined. Outward citations are more evenly distributed on the top. The opposite is true for their tails. While only 22 per cent of citing cases cite five times or less, 43 per cent of cited cases are referred to five times or less. The pool of precedents is thus much more diverse than the group of judgments that cite it. These findings point towards an expansion of the ICJ's citation practice in frequency and in scope. On the one hand, the growth of outward citations shows that reliance on precedent becomes increasingly important in ICJ cases. On the other hand, the distribution of inward citations reveals that an ever-broader range of judgments is relied upon as precedent. Two questions arise: (i) what causes this growth in citations and (ii) what does the growth of citations mean for the Court and its litigants? We will tackle each of these questions in turn.

5 Explaining the Growth of Self-Citations

Outward citations have increased steadily since the mid-1990s. From one perspective, this upward trend is not surprising. As suggested above, newer ICJ judgments simply

³⁶ *Ibid.*, at 160. WTO, *United States – Standards for Reformulated and Conventional Gasoline*, 20 May 1996, WT/DS2/AB/R; WTO, *European Communities – Regime for the Importation, Sale and Distribution of Bananas – Report of the Appellate Body*, 9 September 1997, WT/DS27/AB/R; WTO, *Japan – Taxes on Alcoholic Beverages – Report of the Appellate Body*, 4 October 1996, WT/DSS/AB/R.

³⁷ R. Kolb, *The International Court of Justice* (2013), at 1152–1154.

³⁸ See, e.g., Fowler *et al.*, *supra* note 1, at 332: 'As is evident, the vast majority of opinions are cited by only a few cases while a few opinions garner a significant number of citations'; Lupu and Voeten, *supra* note 9, at 425: 'As the log-log plots in Figure 2 show, the ECtHR resembles the USSC in this respect.' See also Derlén *et al.*, *supra* note 6, at 532, noting that most of the clusters of cases they built were 'trivial', in that the cases they gathered were very rarely cited.

³⁹ *North Sea Continental Shelf (Federal Republic of Germany/Denmark)*, Judgment, 20 February 1969, ICJ Reports (1969) 3; *Territorial and Maritime Dispute (Nicaragua v. Colombia)*, Judgment, 19 November 2012, ICJ Reports (2012) 624.

Table 1: Top 10 Cases in Terms of Citations

Case name	Inward citation	Case name	Outward citation
<i>North Sea Continental Shelf (Federal Republic of Germany/Denmark)</i> ⁴⁰	98	<i>Territorial and Maritime Dispute (Nicaragua v. Colombia)</i> ⁴¹	77
<i>Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America)</i> ⁴²	52	<i>Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory</i> ⁴³	68
<i>Continental Shelf (Libyan Arab Jamahiriya/Malta)</i> ⁴⁴	45	<i>Land and Maritime Boundary between Cameroon and Nigeria (Cameroon v. Nigeria)</i> ⁴⁵	64
<i>Frontier Dispute (Burkina Faso/Republic of Mali)</i> ⁴⁶	44	<i>Territorial and Maritime Dispute between Nicaragua and Honduras in the Caribbean Sea (Nicaragua v. Honduras)</i> ⁴⁷	61
<i>Continental Shelf (Tunisia/Libyan Arab Jamahiriya)</i> ⁴⁸	44	<i>Land and Maritime Boundary between Cameroon and Nigeria (Cameroon v. Nigeria)</i> ⁴⁹	59
<i>Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America)</i> ⁵⁰	43	<i>Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro)</i> ⁵¹	57

⁴⁰ *North Sea Continental Shelf*, *supra* note 39.

⁴¹ *Territorial and Maritime Dispute*, *supra* note 39.

⁴² *Military and Paramilitary Activities in Nicaragua (Nicaragua v. United States of America)*, Judgment, 27 June 1986, ICJ Reports (1986) 14.

⁴³ *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, Advisory Opinion, 9 July 2004, ICJ Reports (2004) 136.

⁴⁴ *Continental Shelf (Libyan Arab Jamahiriya/Malta)*, Judgment, 3 June 1985, ICJ Reports (1985) 13.

⁴⁵ *Land and Maritime Boundary between Cameroon and Nigeria (Cameroon v. Nigeria)*, Judgment, 10 October 2002, ICJ Reports (2002) 303.

⁴⁶ *Frontier Dispute (Burkina Faso/Republic of Mali)*, Judgment, 22 December 1986, ICJ Reports (1986) 554.

⁴⁷ *Territorial and Maritime Dispute between Nicaragua and Honduras in the Caribbean Sea (Nicaragua v. Honduras)*, Judgment, 8 October 2007, ICJ Reports (2007) 659.

⁴⁸ *Continental Shelf (Tunisia/Libyan Arab Jamahiriya)*, Judgment, 24 February 1982, ICJ Reports (1982) 18.

⁴⁹ *Land and Maritime Boundary between Cameroon and Nigeria (Cameroon v. Nigeria)*, Jurisdiction, 11 June 1998, ICJ Reports (1998) 275.

⁵⁰ *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America)*, Jurisdiction, 26 November 1984, ICJ Reports (1984) 392.

⁵¹ *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro)*, Judgment, 26 February 2007, ICJ Reports (2007) 43.

Table 1: Continued

Case name	Inward citation	Case name	Outward citation
<i>Interpretation of Peace Treaties with Bulgaria, Hungary and Romania</i> ⁵²	43	<i>Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Croatia v. Serbia)</i> ⁵³	48
<i>Barcelona Traction Light and Power Company Limited (Belgium v. Spain)</i> ⁵⁴	40	<i>Accordance with International Law of the Unilateral Declaration of Independence in Respect of Kosovo</i> ⁵⁵	46
<i>LaGrand (Germany v. United States of America)</i> ⁵⁶	38	<i>Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America)</i> ⁵⁷	43
<i>Application for Review of Judgment No. 158 of the United Nations Administrative Tribunal</i> ⁵⁸	36	<i>Avena and Other Mexican Nationals (Mexico v. United States of America)</i> ⁵⁹	41

have a larger pool of ICJ cases to cite from and can now cite multiple cases on the same proposition of law. Moreover, the number of cases submitted to the ICJ has also increased since the 1990s. Yet, even accounting for these factors, the post-1995 increase of outward citations is out of proportion. First, the propensity to cite more than one judgment per paragraph has remained constant since its peak in 1996, meaning that the ICJ does not simply cite more cases on the same proposition of law today than it did 20 years ago.⁶⁰ Second, while we tend to see more judicial output being produced, the increase of outward citations exceeds this growth. The number of citations per page has doubled from the first to the last decade of our analysis with, on average, one citation for every five pages in the latter period. Similarly, the ratio of possible citations (number of unique cases cited divided by the number of all theoretically possible unique citations in a given year) has doubled in the last two decades of our analysis

⁵² *Interpretation of Peace Treaties with Bulgaria, Hungary and Romania*, Advisory Opinion, 18 July 1950, ICJ Reports (1950) 221.

⁵³ *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Croatia v. Serbia)*, Jurisdiction, 18 November 2008, ICJ Reports (2008) 412.

⁵⁴ *Barcelona Traction*, *supra* note 18.

⁵⁵ *Accordance with International Law of the Unilateral Declaration of Independence in Respect of Kosovo*, Advisory Opinion, 22 July 2010, ICJ Reports (2010) 403.

⁵⁶ *LaGrand (Germany v. United States of America)*, Judgment, 27 June 2001, ICJ Reports (2001) 466.

⁵⁷ *Military and Paramilitary Activities in Nicaragua*, Judgment, *supra* note 42.

⁵⁸ *Application for Review of Judgment No. 158 of the United Nations Administrative Tribunal*, Judgment, 12 July 1973, ICJ Reports (1973) 166.

⁵⁹ *Avena and Other Mexican Nationals (Mexico v. United States of America)*, Judgment, 31 March 2004, ICJ Reports (2004) 12.

⁶⁰ With a dozen references, the *Legality of Nuclear Weapons*, *supra* note 15, para. 14, leads the field in terms of multiple citations per paragraph. In that year, multiple reference paragraphs contained on average 4.6 citations. The number has since stabilized at around 2.7 citations per citing paragraph.

as compared to the first 20 years of the ICJ's jurisprudence (see Figure 3).⁶¹ Hence, the existence of longer, or a greater number of, decisions cannot by itself explain the growth of citations. So what drives this increase in outward citations?

We argue that a concurrent (i) subject matter concentration and (ii) issue diversification is formally responsible for the growth of citations in ICJ cases. Underlying each of these trends, however, are evolving institutional choices by the Court and a changing legal culture among its litigants.⁶² Subject matter concentration is driven by the Court's greater emphasis on a 'settled jurisprudence', especially in 'classic' international law areas. Issue diversification, in turn, results from a change in litigation culture that increasingly revolves around precedent in a common law fashion. Both developments make precedential reasoning more important in ICJ litigation.

A Concentration

The first driver of citation growth is an enhanced concentration of cross-references in some subject matters. We coded the subject matter of each ICJ judgment across 16 substantive categories, which allowed us to divide ICJ citations into two groups: (i) citations between cases on overlapping subject matters and (ii) citations between cases on differing subject matters. We found that high outward citations are positively correlated with the propensity to cite cases of the same subject matter. This means that

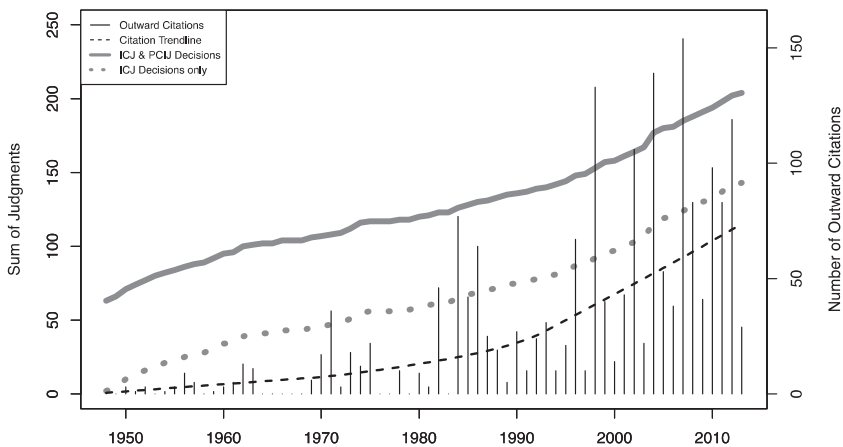


Figure 3: Increase in Outward Citations Outpaces Growth in Judgments. Note that the cumulative count of ICJ judgments is plotted against the per-year count of outward citations and its fitted line (LOWESS). The figure suggests that while the increase in judgments is correlated to the growth of outward citations, it cannot by itself explain stark differences between the citing behaviour of the Court in its early years as opposed to its later years or the stark increase in citations since the 1990s.

⁶¹ We calculate this number based on all World Court decisions (PCIJ and ICJ).

⁶² It is empirically difficult to attribute the origin of a citation to the Court or the litigants as the Court may take on citations from the parties' submissions or pleadings without saying so explicitly in the judgments. Our arguments in relation to the origins of the changing citation practice are therefore only inferences derived from the context of citations. Future work that systematically compares parties' arguments to the Court's decisions is needed to conclusively attribute the origins of citations.

cases specialized in an area of law where prior ICJ precedent exists tend to cite more. This is not surprising. The ICJ had more opportunities to address some subject matters than others, resulting in a concentration of citations in areas that were dealt with extensively in prior jurisprudence. What is interesting, however, is that citations cluster disproportionately in ‘classic’ international law areas, suggesting a more pronounced focus of the Court on these matters.

1 Concentration of Citations in ‘Classic’ International Law Areas

Figures 4a and 4b compare the subject matter distribution of citing cases to the subject matter distribution based on the number of outward citations. We see that the lion’s share of outward citations (or 64 per cent) is clustered in ‘classic’ international law subject matters such as territorial and maritime delimitation, aggression and decolonization. Importantly, this is more than we should expect based on the distribution of cases: only 50 per cent of ICJ judgments with outward citations fell into these three classic subjects.

Furthermore, cases in ‘classic’ areas of international law are particularly prone to same subject matter citations. Two thirds of all outward citations in delimitation

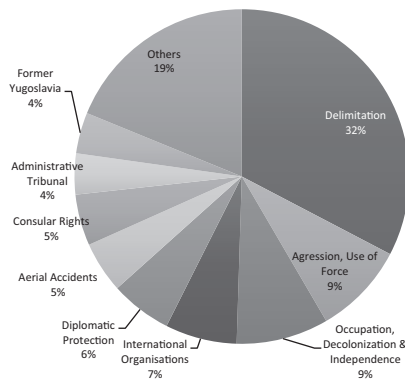
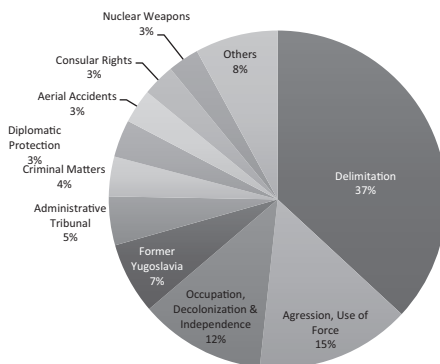


Figure 4a: *Distribution of ICJ Judgments with Outward Citations by Subject Matter*



Distribution of Outward Citations by Subject Matter of Citing Case

cases, for instance, refer back to other delimitation cases. Indeed, 86 per cent of all inward citations to the *North Sea Continental Shelf* case are same subject matter citations. Similarly, consular rights and diplomatic protection cases give rise to a high number of same subject matter citations.⁶³ The top five of the most cited cases identified in Table 1 also relate to classic international law areas such as maritime and territorial delimitation and the use of force. These judgments rendered between the 1960s and mid-1980s accumulated citations as the Court built on these cases in developing the international law on maritime delimitation (*North Sea Continental Shelf* cases) or the use of force (*Military Activity in Nicaragua*).⁶⁴ The importance of these decisions for the subsequent development of the law then turned the period during which they were rendered into one of the most influential in the history of ICJ jurisprudence, in spite of the Court's concurrent legitimacy crisis and the all-time-low in newly brought disputes.⁶⁵ In short, the concentration of citations in classic areas of international law is the result of the Court's continuous focus on, and refinement of, these areas of law.

2 Trend: Growing Importance of a 'Settled Jurisprudence'

If we follow political scientists and accept that citations are as much a strategy of communication as they are guideposts for judicial reasoning,⁶⁶ then this concentration of citations in classic international law subject matters is not a natural occurrence but, rather, driven, at least in part, by institutional choices on the part of the Court.⁶⁷ While we need to defer to future interview-based or econometric work to comprehensively identify the causes of this concentration, we can draw from existing literature to discern preliminary trends and highlight potential explanations. To begin with, it is worth pointing out that from its inception at the end of World War II onwards, the ICJ could have heavily relied on prior cases. Jurisprudence from the PCIJ was both abundant and relevant enough to justify such a practice.⁶⁸ The frequent reliance on PCIJ

⁶³ Conversely, cases on criminal matters or the environment display more different subject matter citations for the simple fact that prior ICJ jurisprudence offers little subject-specific authority on these matters, forcing the Court to turn to other cases for precedential guidance. Aggression and decolonization cases are in between these extremes. While earlier ICJ judgments made important contributions to the development of these areas of law, the cases now brought before the Court tend to touch on a wider array of subject matter, prompting the Court to engage in both same-subject matter and different-subject matter citations.

⁶⁴ This concentration underpins the importance of the ICJ in developing these areas of law through its earlier decisions. See generally C. Tams and J. Sloan, *The Development of International Law by the International Court of Justice* (2013). *Military and Paramilitary Activities in Nicaragua*, Judgment, *supra* note 42.

⁶⁵ Future research could investigate this relationship further exploring the question whether courts in crisis make better law.

⁶⁶ See, e.g., Voeten, 'Borrowing and Nonborrowing among International Courts', 39 *Journal of Legal Studies* (2010) 547, at 553–557.

⁶⁷ By the 'Court', we do not only refer to ICJ judges. The Registry and its staff play an important role in the drafting of decisions and, thus, also shape the institutional choices of the Court. See Thirlway, 'The Drafting of ICJ Decisions: Some Personal Recollections and Observations', 5 *CJIL* (2006) 1, at 15.

⁶⁸ Worthy of note, the PCIJ itself was keen to cite its own precedents, especially in its beginnings; up until 1932, the Permanent Court chose to list in its Annual Reports the precedents cited in its own decisions. See O. Spiermann, *International Legal Argument in the Permanent Court* (2005), at 296.

precedents in recent years, including on fundamental questions of law, such as the principle of effectiveness in treaty interpretation, attests to this potential.⁶⁹

Moreover, as its successor, the Court could have legitimately stressed continuity by referring frequently to PCIJ precedents, as was done, for example, by the WTO Appellate Body, which referenced earlier General Agreement on Tariffs and Trade panels already in its first decision.⁷⁰ Yet, for a variety of reasons, which may include the legal background of its first judges, the majority of which had been trained in civil law jurisdictions, or the potentially constraining force of precedent at a time that, following the challenges to international law during World War II, required a self-assertion of international law, such references remained relatively rare.⁷¹ Times changed, however. Particularly from the mid-1990s onwards, the Court has begun to place greater emphasis on precedent, leading to the concentration of citations in classic areas of international law, as we observed above. What developments could have motivated this change of practice?

The timing suggests that institutional competition could have prompted the Court to place greater reliance on citations in order to protect its relevancy, particularly on classic international law matters. The Court's citation practice changed in the 1990s, a period marked by a proliferation of international courts and tribunals.⁷² Among them, the creation of a specialized International Tribunal for the Law of the Sea (ITLOS) in 1994, in particular, threatened to take away cases from the docket of the ICJ.⁷³ Several ICJ judges were critical of the creation of ITLOS, fearing that it would undermine jurisprudential consistency.⁷⁴ Judge Shigeru Oda, one of the architects behind the Court's jurisprudence on the law of the sea, even stated that '[i]n my view, the creation of a court of judicature in parallel with the ICJ, which has been in existence for many years as the principal judicial organ of the United Nations, will prove to have been a great mistake'.⁷⁵

⁶⁹ See discussion and examples at notes 80–82 below.

⁷⁰ *United States – Gasoline*, *supra* note 36, at 14, n. 28. General Agreement on Tariffs and Trade 1994 (GATT), 55 UNTS 194.

⁷¹ This is not to say that references were non-existent. As Shahabuddeen points out, the Court sought to build bridges to the jurisprudence of its predecessor from its early days onwards. See Shahabuddeen, *supra* note 13, at 23–26. Nevertheless, references to PCIJ decisions were more frequent in the past two decades than in the Court's early years.

⁷² Dupuy, 'Danger of Fragmentation or Unification of the International Legal System and the International Court of Justice', 31 *NYUJLP* (1998) 791; Alford, 'Proliferation of International Courts and Tribunals: International Adjudication in Ascendance', 94 *American Society of International Law Proceedings* (2000) 160.

⁷³ The International Tribunal on the Law of the Sea (ITLOS) was created in 1994 when the United Nations Convention on the Law of the Sea entered into force. Convention on the Law of the Sea (UNCLOS) 1982, 1833 UNTS 3, Art. 287 lists ITLOS and the ICJ as alternative venues for the settlement of disputes in relation to the Convention.

⁷⁴ Noyes, 'International Tribunal for the Law of the Sea', 32 *Cornell International Law Journal* (1999) 109, at 111.

⁷⁵ Oda, 'The International Court of Justice Viewed from the Bench', 244 *Recueil des Cours – Académie de Droit International de La Haye* (1995) 23, at 144.

The literature suggests that such institutional competition can affect the jurisprudential choices of international courts and tribunals, including those of the ICJ, in an effort to prevent states from settling their disputes before alternative fora.⁷⁶ Chester Brown, for instance, citing the 2001 *LaGrand* judgment that found that provisional measures under the ICJ Statute were binding, argues that the decision 'was at least partly motivated by a desire on the part of the ICJ to remain an attractive forum for cases involving requests for provisional measures. This is especially true given that any provisional measures granted under UNCLOS [United Nations Convention on the Law of the Sea] would definitely be binding in view of the clear language of article 290(6) of that convention'.⁷⁷ Furthermore, even where institutional competition is less direct, specialized international tribunals from the human rights to the trade realms inevitably tread on ICJ turf occasionally when they are confronted with public international law questions. By recalling its case law on classic international law matters, the ICJ can remind more specialized courts to consider and follow its jurisprudence in these areas.⁷⁸

In short, institutional competition may explain why we see a sudden increase of citations in ICJ judgments especially on classic public international law matters at a time when adjudicatory venues proliferated. The Court seems to have been using references to its 'settled jurisprudence' to emphasize its legacy, expertise and predictability, making the ICJ a more attractive venue for potential litigants and underscoring its importance for the development of international law *vis-à-vis* other courts.⁷⁹ First of all, citations to its prior decisions have served to underscore the Court's legacy. Compared to its more junior peers created in the 1990s, the ICJ has been able to lay claim to having been a stable guardian of international law for close to a century. Interestingly, this has made the jurisprudence of the PCIJ today more relevant than it was during the Court's early days. In today's practice, 'new' or rarely used PCIJ precedents are continuously revitalized to emphasize the link between the ICJ and the PCIJ as well as the consistency of the Court's jurisprudence over time. For example, in the 1994 *Territorial Dispute (Libyan Arab Jamahiriya/Chad)*, the Court refers for the first time to the 1934 *Lighthouse* judgment of the PCIJ⁸⁰ in order to invoke the principle of effectiveness in treaty interpretation.⁸¹ Similarly, the 1931 *Railway Traffic between Lithuania and Poland* case⁸² was mentioned four times in 2010 and 2011,⁸³ after only having

⁷⁶ Pauwelyn and Elsig, *supra* note 2, at 466.

⁷⁷ Brown, 'The Cross-Fertilization of Principles Relating to Procedure and Remedies in the Jurisprudence of International Courts and Tribunals', 30 *Loyola of Los Angeles International and Comparative Law Review* (2008) 219, at 236. *LaGrand*, *supra* note 56. UNCLOS, *supra* note 73.

⁷⁸ See D. Terris, C.P. Romano and L. Swigart, *The International Judge: An Introduction to the Men and Women Who Decides the World's Cases* (2007), at 121.

⁷⁹ See, e.g., *Fisheries Jurisdiction*, *supra* note 4, para. 12.

⁸⁰ *Lighthouse Cases between France and Greece*, 1934 PCIJ Series A/B, No. 62.

⁸¹ *Territorial Dispute (Libya v. Chad)*, Judgment, 3 February 1994, ICJ Reports (1994) 7, at para. 51.

⁸² 1931 PCIJ Series A/B, No. 42.

⁸³ *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Judgment, 20 April 2010, ICJ Reports (2010) 14, para. 150; *Application of the International Convention on the Elimination of All Forms of Racial Discrimination (Georgia v. Russian Federation) (Racial Discrimination)*, Jurisdiction, 1 April 2011, ICJ Reports (2011) 70, paras 132, 150, 158.

been cited once before in 1969 to underline parties' obligations to pursue negotiations with a view to concluding an agreement.⁸⁴ These references do not seem strictly necessary to justify the invocation of well-established principles of interpretation or negotiation, but they do give a strong impression of institutional continuity underscoring the Court's long legacy.

Second, self-citations have also been crucial in emphasizing the Court's long-standing expertise on public international law matters. At a time when international tribunals have been proliferating, international law has also become more specialized and compartmentalized.⁸⁵ To gain an upper edge against competing adjudicatory venues, the Court may have been emphasizing its expertise by using citations to underline its 'settled jurisprudence' on specialized subject matter. Reiterations of its jurisprudence, particularly in relation to the law of the sea, creates trust in the technical competency of the Court and has helped to attract cases on these matters, thereby ensuring the ICJ's continued relevance in spite of the availability of other, seemingly more specialized, venues.

Third, the emphasis on its 'settled jurisprudence' may have been inspiring an impression of predictability in potential litigants.⁸⁶ Although a relevant precedent is not a perfect guarantee that new cases will be decided equivalently in the absence of *stare decisis*, a 'settled jurisprudence' gives states guideposts that help assess the merits of their case and can shape their litigation strategy.⁸⁷ Indeed, parties may bring a case to the ICJ in order to benefit from past decisions cashing in on this predictability.⁸⁸ This can give rise to a spiralling effect; litigants bring cases before the ICJ to benefit from the Court's specialized jurisprudence in classic international law areas, which, in turn, increases citations on these matters and further entrenches the Court's jurisprudence, making it more attractive for litigants to bring such cases to the ICJ in the future.⁸⁹

⁸⁴ *North Sea Continental Shelf*, *supra* note 39, para. 87.

⁸⁵ Dupuy, *supra* note 72; Alford, *supra* note 72.

⁸⁶ See the speech by H.E. Judge Rosalyn Higgins at the tenth anniversary of ITLOS (29 September 2009) mentioning that '[t]he experience of most international courts is to start slowly and steadily build their docket. The most important factor in this formative stage of the life of a new judicial institution is confidence-building – providing that core predictability that distinguishes law from politics, but doing so in a way that is responsive to the legitimate needs and expectations of the international community'.

⁸⁷ ICJ decisions do not have *stare decisis* effect. At the same time, the Court clarified that 'while [prior] decisions are in no way binding on the Court, it will not depart from its settled jurisprudence unless it has very particular reasons to do so'. See *Application of the Convention on Genocide (Croatia v. Serbia)*, *supra* note 53, para. 53. See similarly, *Land and Maritime Boundary (Cameroon v. Nigeria)*, Jurisdiction, *supra* note 49, para. 28. On the value of precedent, see generally Shahabuddeen, *supra* note 13.

⁸⁸ Shahabuddeen, *supra* note 13, at 213–215 (notes that disputants use prior cases to frame their arguments). See also Terris, Romano and Swigart, *supra* note 78, at 118: 'In practice, then, international judges tend to rule consistently with their own previous rulings. Furthermore, they are inclined to quote each other, thus reinforcing the precedential value of the initial judgment. The echo effect can be significant. While in theory international judges cannot make international law, in the end they achieve lawmaking effects through repeated self-reference.'

⁸⁹ See the speech by H.E. Judge Rosalyn Higgins, *supra* note 86, where she mentions that '[p]arties prefer to submit their disputes for settlement to bodies whose decisions are characterized by consistency, both within that body's own jurisprudence and with the decisions of other international bodies confronted with analogous issues of law and fact'.

This spiralling effect is thus likely to lead to a further concentration of citations.⁹⁰ In conclusion, the growth of citations through concentration in classic international law areas is, at least in part, the result of an institutional choice by the Court to signal its legacy, expertise and predictability through a precedent-based 'settled jurisprudence' in order to remain relevant in an era of competing adjudicatory venues.⁹¹

B Diversification

In parallel to the trend towards more subject matter concentration, we also observed a diversification of the topics covered by outward citations. This time, however, it is arguably the disputants and not the Court who have been chiefly responsible for this trend. The reason for citing one judgment and not another is often more complex than a comparison of the subject matter of the citing and the cited case suggests. Jurisdictional and admissibility questions, for instance, can link cases that are otherwise factually unrelated. Procedural issues, such as the right of third parties to intervene, may be another example of a crosscutting matter. Even with respect to substantive law, citations can connect otherwise very different cases when they relate to common problems of treaty interpretation and evidence or deal with general principles of law. We therefore used the citing paragraph to further characterize the subject matter of each citation and to investigate how the issues covered by the citations have changed over time.

Applying a common text-as-data classification tool (known as topic modelling) to citing paragraphs, we assigned each citation to one of 30 computer-generated topics.⁹² With respect to our data, we validated its use by manually creating topic headers after reading a sample of paragraphs in each topic. The automated creation and assignment of topics closely corresponds to how we would have hand-coded citing paragraphs based on the legal issues they raise. Our approach can account for nuanced uses of precedents. Two citing paragraphs, for instance, may refer to the same precedent, but they belong to different 'topics' because they use the same source material (here, the same cited paragraph) to advance different legal arguments. For example, the most cited paragraph of the ICJ citation network, referenced 15 times, was a section of the *Monetary Gold Removed from Rome in 1943* judgment on preliminary questions.⁹³ In this section, the Court formulated the fundamental principle that

⁹⁰ In network analysis, this process is known as preferential attachment: already central nodes become more central over time; it is also sometimes referred to as the 'Matthew effect' ('For everyone who has will be given more, and he will have an abundance', Matthew 25:29).

⁹¹ See also Terris, Romano and Swigart, *supra* note 78, at 118: 'Other international courts refer equally to their own precedents, although not all can rely on more than eighty years of jurisprudence, as the World Court can.'

⁹² The topic model algorithm is based on word frequencies and word co-occurrence and has successfully been employed in a variety of contexts to classify documents by their subject matter. See Blei, Ng and Jordan, 'Latent Dirichlet Allocation', 3 *Journal of Machine Learning Research* (2003) 993; Blei, 'Probabilistic Topic Models', 55 *Communications of the ACM* (2012) 77.

⁹³ *Monetary Gold Removed from Rome in 1943 (Italy v. France, United Kingdom of Great Britain and Northern Ireland and United States of America)*, Jurisdiction, 15 June 1954, ICJ Reports (1954) 19.

if the legal interests of a third state ‘would not only be affected by a decision, but would form the very subject-matter of the decision’, then the proceedings could not continue without its consent.⁹⁴

The Court and the parties may have very different reasons to cite this section of *Monetary Gold*. The Court may have mentioned it as part of its jurisdictional assessment to underscore the continued significance of state sovereignty and consent-based adjudication⁹⁵ or to expound on the related right to intervene for affected third parties.⁹⁶ The litigants, in contrast, may have pointed to this precedent strategically to achieve an early dismissal of a case, in which case the Court would have dealt with the reference as part of the application of the law to the facts of the case.⁹⁷ Our algorithm was able to assign several different topics to the 15 paragraphs citing the *Monetary Gold* passage, reflecting the different ways the same precedent is used.⁹⁸ For our purposes, we investigated the topics of citations to ascertain whether the subject matter covered by the citations changed over time. What we found was that citations deal with an increasingly diverse range of issues.

1 Greater Diversity in Citation Topics

The number of issues covered by citations has increased markedly over time. While each judgment in the first 25 years of the ICJ cited precedents on two separate topics on average, this number has more than doubled in the last 25 years. The increase in subject matter covered by citations started in the mid-1980s and then grew more steadily from the mid-1990s onwards. At its peak in 2002 and 2008, each judgment cited precedents from eight different topics. The 2002 *Land and Maritime Boundary between Cameroon and Nigeria* judgment even cited cases from 14 issue areas covering roughly half of all of the topics we identified in the ICJ citations.⁹⁹

The reasons for the issue expansion of citations are varied. First, especially since the 1990s, new types of disputes have made it to the ICJ, which has given the Court the opportunity to pronounce itself more frequently on matters outside of the ‘classic’ international law realm (such as human rights or environmental law).¹⁰⁰ As a result, newer cases can now seek guidance from precedents on a broader range of issues. Second, some of the cases have become more multifaceted, forcing judges and parties

⁹⁴ *Ibid.*, at 32.

⁹⁵ See, e.g., *Aerial Incident of 27 July 1955 (Israel v. Bulgaria)*, Jurisdiction, 26 May 1959, ICJ Reports (1959) 127, at 142.

⁹⁶ See, e.g., *Continental Shelf (Libya v. Malta)*, Application to Intervene, 21 March 1984, ICJ Reports (1984) 3, at para. 46.

⁹⁷ See, e.g., *Land and Maritime Boundary (Cameroon v. Nigeria)*, Jurisdiction, *supra* note 49, para. 79.

⁹⁸ We have tentatively assigned the following names to the five topics (brackets indicate the number of paragraphs per topic): Respondent (9), Right to intervene (3), Sovereign Immunity (1), Compulsory Jurisdiction (1) and Maritime Border Dispute II (1).

⁹⁹ *Land and Maritime Boundary (Cameroon v. Nigeria)*, Judgment, *supra* note 45.

¹⁰⁰ On the expansion of issues in ICJ litigation, see Andenas, ‘Reassertion and Transformation: From Fragmentation to Convergence in International Law’, 46 *Georgetown Journal of International Law* (2014) 685.

to engage with a greater variety of legal issues. The *Military and Paramilitary Activities in Nicaragua* judgments,¹⁰¹ for instance, invoked references corresponding to almost half of all topics covered by ICJ citations. Third, precedent is increasingly invoked on cross-cutting jurisdictional, procedural or merits issues. Figure 5 depicts the annual number of distinct topics covered by citations, but it distinguishes between citations linking two cases that share the same subject matter and those that connect cases on different subject matters. Until the mid-1990s, diversity in topics was equally distributed in both types of citations, yet since then topic diversity has grown disproportionately in citations that concern different subject matters. Precedent is thus increasingly being used to distinguish or to analogize cases on legal issues that are unrelated to the subject matter of the dispute, such as standing to bring a case, treaty interpretation, law of evidence and the like. The *Land and Maritime Boundary between Cameroon and Nigeria* preliminary objections and merits judgments are illustrative of these trends.¹⁰² We are thus witnessing a change in litigation behaviour as disputants increasingly look for precedent beyond the subject matter of their case to gain an upper hand in litigation. In the process, dispute settlement before the ICJ has become more common law-like.

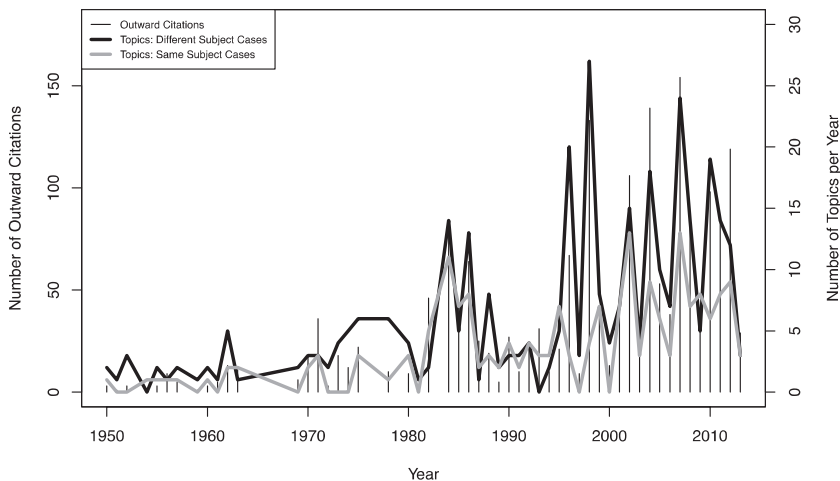


Figure 5: Increase in Topics Covered Accompanies Growth of Citations. Note that the graph plots the cumulative number of topics covered in a year distinguished by citations that connect cases of the same subject matter and cases of different subject matter.

¹⁰¹ *Military and Paramilitary Activities in Nicaragua*, Jurisdiction, *supra* note 50; *Military and Paramilitary Activities in Nicaragua*, Judgment, *supra* note 44.

¹⁰² In over 120 citations these judgments cover 20 topics. Nigeria filed eight preliminary objections to Cameroon's claim on jurisdictional and admissibility grounds. In the text of the 1998 judgment on preliminary objections, both parties and the Court referred to prior cases 59 times to buttress their arguments, which ultimately resulted in the rejection of Nigeria's objections. In the 2002 judgment on the merits, both sides then continued their contest of competing precedents. Together with the Court they referred 64 times to prior cases on territorial and maritime delimitation, the continental shelf, treaty interpretation, matters of evidence and general principles of law. See *Land and Maritime Boundary (Cameroon v. Nigeria)*, Jurisdiction, *supra* note 49; *Land and Maritime Boundary between (Cameroon v. Nigeria)*, Judgment, *supra* note 45.

2 Trend: Common Law Type of Litigation around Precedent

Just as the creation of specialization through a precedent-based ‘settled jurisprudence’ has been, at least in part, a choice by the Court, the issue of diversification reflected in citation patterns seems to have been partly the choice of the litigants. Following the literature that suggests that parties habitually refer to earlier ICJ cases in their submissions,¹⁰³ we posited and empirically validated the claim that parties not only increasingly craft their arguments around precedent but also cite a more diverse range of prior authorities. For each citation in our database, we manually coded whether it resulted from the Court restating the arguments and authorities cited by the parties or was introduced by the Court *sua sponte*.¹⁰⁴ We identified 137 instances where the restated party arguments involved precedent. Figure 6 traces these party-submitted citations per year. We found that parties’ use of precedent has increased dramatically since the late 1990s.

To further verify this claim, we investigated citations in party submissions in ICJ cases in the first and last 10 years of our period of investigation. We found that the average number of citations per case has increased fivefold between the two periods. While the United Kingdom led the field in terms of citations of past PCIJ or ICJ cases in party memorials during the first decade,¹⁰⁵ Russia and Chile, two civil law countries,

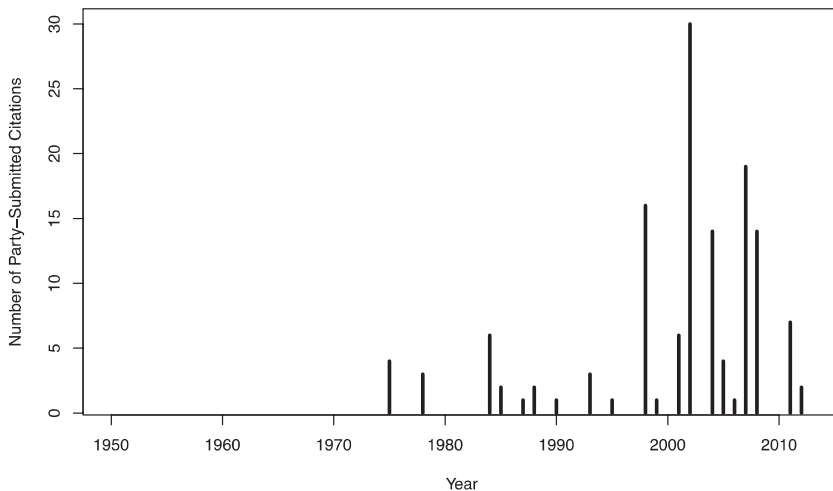


Figure 6: Number of Party-Submitted Citations per Year. Note that the figure plots the cumulative number of citations per year that appear as the Court’s restatement of party arguments. We observed a marked increase since the late 1990s.

¹⁰³ Shahabuddeen, *supra* note 13, at 213.

¹⁰⁴ This coding was based on the judgment text (not party memorials or pleadings). The Court restates the parties’ arguments in part of the judgment, in which case we code them as party-induced rather than *sua sponte*. Assuming that judgments faithfully reproduce parties’ arguments, these patterns in judgments will reflect changes in the citation practice of disputants over time. Future work could investigate this trend further by specifically investigating party submissions.

¹⁰⁵ *Anglo-Iranian Oil Co. (United Kingdom v. Iran)*, Observations and Submissions presented by the Government of the United Kingdom of Britain and Northern Ireland in regard to the Preliminary Objection lodged by the Imperial Government of Iran, 24 March 1952, containing 26 citations.

seem to have rendered the most citing submissions in the last 10 years.¹⁰⁶ In general, we observed that countries across legal traditions more abundantly referred to precedent in their recent submissions than in the Court's earlier years.

The trend that disputing states increasingly view and use prior ICJ cases as a litigation resource points to a change in the legal culture before the ICJ. While litigants rarely mentioned prior case law in the early days of the ICJ to advance their claims, in spite of readily available case law from the PCIJ, they now tend to construct their arguments around precedent. Hence, litigation before the ICJ has become more common law-like.¹⁰⁷ Leaving it to future work to fully explore the causes of the parties' and the Court's evolving choices towards an increasing referencing of prior cases, we focus on exploring the consequences of this trend in the remainder of this article. The growth of citations has changed litigation before the ICJ, but in what way? Does the combined effect of the concentration and diversification of cited cases make litigation more complex since practitioners have to engage with an ever-denser network of influential precedents? Or has citing prior decisions merely become the new habitus by and before the ICJ without any real effect on the way cases are being argued?

6 The Argumentative, Rather Than Ritualistic, Use of Precedent

Whether more citations actually lead to more complexity in practice depends on how closely they are intertwined with legal argumentation. If citing precedent is more of a ritual than an argumentative choice, then the growth of citations may make litigation more cumbersome as parties and the Court pay tribute to that habit, but it does not make dispute settlement more complex since counsel and judges are not substantively engaged with an ever-growing number of precedential sources. In this section, we therefore adduce evidence that the use of precedent before the Court tends to be more argumentative than ritualistic. This, in turn, means that the growing pool of precedents cited has also made ICJ litigation more complex.

A Precedent: Ritualism or Argumentation?

International courts differ in their citation patterns and practices. Some cite prior judgments out of convention rather than as an instrument of persuasion. Ioannis Panagis and Urska Sadl, for instance, have shown that precedent before the CJEU has 'justificatory, but no coercive force' as the Court uses citations more ritualistically than

¹⁰⁶ *Application of the International Convention on the Elimination of All Forms of Racial Discrimination (Georgia v. Russian Federation)*, Preliminary Objections of the Russian Federation, 1 December 2009, and *Maritime Dispute (Peru v. Chile)*, Counter-Memorial of Chile, 9 March 2010, both containing around 100 citations. Since common law lawyers may represent civil law countries, the nationality – or education – of counsel might also matter. The record reveals, however, that the majority of Russia's counsel was seemingly trained in and from civil law jurisdictions. Chile's team of advisors had a more mixed background.

¹⁰⁷ Of course, the reverse phenomenon can also be part of the story: the Court, which relies on the parties' written submissions in drafting its judgments, might increasingly follow the parties' practice of citing authorities to support an argument. Both phenomena can be mutually reinforcing.

argumentatively.¹⁰⁸ Karen McAuliffe explains the CJEU's formulaic citation practice with the high degree of standardization involved in drafting judgments.¹⁰⁹ In such settings, where citations tend to be repetitive, often relate to uncontroversial points, act as mere restatements of the law and sometimes bear only limited relevance to the legal issue in dispute, they have little impact on the litigation choices by the parties or judges. In contrast, where references are used argumentatively in order to advocate and persuade, they are more deeply integrated into the choices and strategies of litigants and adjudicators. In these settings, prior cases become crucial tools to convince the court and to direct the evolution of the law. As a result, it is important to distinguish between the ritualistic and argumentative use of citations. While the former is about how the law is being communicated, the latter is about how the law is being litigated.

The differences in the use of citations are partly driven by differences in legal cultures. Adversarial common law systems rely heavily on the argumentative use of precedent, while inquisitorial civil law systems tend to use precedent more formalistically.¹¹⁰ International courts are an amalgamation of these traditions and can be placed somewhere in between argumentative and ritualistic extremes. Prior empirical research, however, suggests that an international court may lean closer to one extreme than the other.¹¹¹

So where do we situate the ICJ on this spectrum? In order to empirically answer this question, we investigated the variation within outward citations, which we believe is a good proxy for the way in which precedent is being used. When the same combination of cases is referenced over and over again, this points to a ritualistic approach to prior case law. In contrast, when prior judgments are referred to in tailored combinations and through unique quotations, this suggests a more argumentative use of precedent. We investigated such variation of citations through two different routes: (i) looking at the recurrence of case combinations cited and (ii) checking for duplicates in passages quoted from earlier cases. We found evidence that precedent is more often used argumentatively than ritualistically before the ICJ.

B *Variety in Citation Combinations*

Do ICJ judgments constantly refer to the same set of prior cases to support a point of law or do they vary and adapt their references case by case? Out of the 1,865 citations in our database, 1,120 of the outward citations (60 per cent) were concentrated in

¹⁰⁸ Panagis and Sadl, 'The Force of EU Case Law: An Empirical Study of Precedential Constraint', 279 *Frontiers in Artificial Intelligence and Applications* (2015) 71, at 78.

¹⁰⁹ McAuliffe, 'Precedent at the Court of Justice of the European Union: The Linguistic Aspect', 15 *Law and Language. Current Legal Issues* (2013) 483.

¹¹⁰ These differences are somewhat stylized of course, but they can be helpful lenses to assess the changing legal cultures before international courts. See, for instance, Pauwelyn, 'The Limits of Litigation: "Americanization" and Negotiation in the Settlement of WTO Disputes', 19 *Ohio State Journal on Dispute Resolution* (2003).

¹¹¹ See Panagis and Sadl, *supra* note 6. See also Terris, Romano and Swigart, *supra* note 78, at 98, who cite Judge Buergenthal comparing his experiences at the Inter-American Court of Human Rights and at the ICJ: 'At the Inter-American Court we did not have the large body of precedent that the ICJ has built up over the many decades of its existence and we were therefore freer to be more creative. The ICJ is much more formal and to some extent formalistic in its judicial approach.'

paragraphs with more than one citation. The high fraction of multiple citations per paragraph could suggest a repeated use of the same set of cases to state the same point of law. However, this is only marginally true. Only 27 per cent of these 1,120 citations appear as part of a pair of precedents more than once. The Court is most ritualistic on recurring jurisdictional and procedural matters, where it cites prior cases to reinforce the impression that a 'settled jurisprudence' emerges from its decisions.¹¹² Paragraph 24 of the 2005 *Certain Property* judgment is an illustrative example of a wider practice followed in several cases,¹¹³ where the Court goes back the 1924 *Mavrommatis* decision¹¹⁴ and then recalls a series of ICJ judgments to derive the definition of a 'dispute':

According to the consistent jurisprudence of the Court and the Permanent Court of International Justice, a dispute is a disagreement on a point of law or fact, a conflict of legal views or interests between parties (see *Mavrommatis Palestine Concessions*, Judgment No. 2, 1924, P.C.I.J., Series A, No. 2, p. 11; *Northern Cameroons*, Judgment, I.C.J. Reports 1963, p. 27; *Applicability of the Obligation to Arbitrate under Section 21 of the United Nations Headquarters Agreement of 26 June 1947*, Advisory Opinion, I.C.J. Reports 1988, p. 27, para. 35; *East Timor*, Judgment, I.C.J. Reports 1995, pp. 99–100, para. 22). Moreover, for the purposes of verifying the existence of a legal dispute it falls to the Court to determine whether the claim of one party is positively opposed by the other (*South West Africa, Preliminary Objections*, Judgment, I.C.J. Reports 1962, p. 328).¹¹⁵

For legal argumentation purposes, such a repeated use of precedent is not necessary. Nor is the legal definition of a dispute a controversial matter in today's litigation before the ICJ. Hence, the Court acts ritualistically here primarily as a way to communicate the consistency in its jurisprudence.

Most of the Court's references to precedent, however, are less ritualistic. The majority of citing paragraphs refer to only one precedent, and 40 per cent of all outward citations appear alone. Of the totality of the 1,086 paragraphs cited, only 350 (32 per cent) are cited more than once. Put differently, three out of four citations refer to a unique precedent. These numbers indicate that citations are considerably more often a result of tailored argumentation than institutional ritualism.

C Unique or Repetitive Use of Quotations

To further investigate the degree of ritualism in the citation practice before the ICJ, we investigated the propensity for judgments to quote the same cited passage more than once. To this end, we extracted all 1,421 quotations from citing paragraphs that reproduce a statement of law made in an earlier case.¹¹⁶ We then calculated how many times an identical quote appears in the ICJ citation network.¹¹⁷ The results corroborate

¹¹² This is perhaps to be expected, given that these fields are more likely to stem from jurisprudential developments, being rarely (and by contrast to substantial matters) elaborated upon in 'classic' sources of international law, such as treaties and customs.

¹¹³ See, e.g., *Land and Maritime Boundary (Cameroon v. Nigeria)*, Jurisdiction, *supra* note 49, para. 87; *Armed Activities on the Territory of the Congo (New Application: 2002) (Democratic Republic of the Congo v. Rwanda)*, Jurisdiction, 3 February 2006, ICJ Reports (2006) 6; *Territorial Dispute between Nicaragua and Honduras*, *supra* note 47, para. 130; *Racial Discrimination*, *supra* note 83, para. 30.

¹¹⁴ *Mavrommatis Palestine Concessions*, 1924 PCIJ Series A, No. 2, para. 11.

¹¹⁵ *Certain Property (Liechtenstein v. Germany)*, Jurisdiction, 10 February 2005, ICJ Reports (2005) 6, para. 24.

¹¹⁶ Some paragraphs contain several separate quotations.

¹¹⁷ We determine the number of identical quotes by comparing each quote with all other quotes, finding a duplicate if the Jaccard distance between the unigram representations of each quote is less than 0.1.

the above findings; although the ICJ is at times ritualistic in its citations, references to prior cases are predominantly made for argumentative purposes. About 14 per cent of all quotes are used more than once, with some occurring as many as four times, suggesting that the ICJ has been exhibiting some ritualistic tendencies. A selection of the most prominent multiple occurrences is reproduced in Table 2. On the one hand,

Table 2: Selection of the Most Frequent Recurring Quotations

Quotation (in the context of exemplary judgments)	Occurrences
The present Court for its part, in its Judgment of 30 June 1995 in the case concerning East Timor (Portugal v. Australia), emphasized the following: ‘in order to establish the existence of a dispute, “It must be shown that the claim of one party is positively opposed by the other” (South West Africa, Preliminary Objections, Judgment, I.C.J. Reports 1962, p. 328), and further, “Whether there exists an international dispute is a matter for objective determination” (Interpretation of Peace Treaties with Bulgaria, Hungary and Romania, First Phase, Advisory Opinion, I.C.J. Reports 1950, p. 74). ¹¹⁸	4
In this respect the Permanent Court of International Justice, in the case concerning Mavrommatis Palestine Concessions, had defined a dispute as ‘a disagreement on a point of law or fact, a conflict of legal views or of interests between two persons’ (P.C.I.J., Series A, No. 2, p. 11). ¹¹⁹	3
The Permanent Court of International Justice stated in its Judgment of 13 September 1928 in the case concerning the Factory at Chorzow: ‘reparation must, as far as possible, wipe out all the consequences of the illegal act and reestablish the situation which would, in all probability, have existed if that act had not been committed’ (P.C.I.J., Series A, No. 17, p. 47). ¹²⁰	3
The Court notes that the meaning of negotiations for the purposes of dispute settlement, or the obligation to negotiate, has been clarified through the jurisprudence of the Court and that of its predecessor, as well as arbitral awards. As the Permanent Court of International Justice already stated in 1931 in the case concerning Railway Traffic between Lithuania and Poland, the obligation to negotiate is first of all ‘not only to enter into negotiations, but also to pursue them as far as possible, with a view to concluding agreements.’ ¹²¹	3
There is no doubt that in appropriate circumstances the Court will decline, as it did in the case concerning Monetary Gold Removed from Rome in 1943, to exercise the jurisdiction conferred upon it where the legal interests of a State not party to the proceedings ‘would not only be affected by a decision, but would form the very subject-matter of the decision’ (I.C.J. Reports 1954, p. 32). ¹²²	3

¹¹⁸ *Questions of Interpretation and Application of the 1971 Montreal Convention Arising from the Aerial Incident at Lockerbie (Libya v. United States of America)*, Jurisdiction, 27 February 1998, ICJ Reports (1998) 115, para. 22.

¹¹⁹ *Applicability of the Obligation to Arbitrate under Section 21 of the United Nations Headquarters Agreement of 26 June 1947*, Advisory Opinion, 26 April 1988, ICJ Reports (1988) 12, para. 35.

¹²⁰ *Gabčíkovo-Nagymaros Project (Hungary v. Slovakia)*, Judgment, 25 September 1997, ICJ Reports (1997) 7, para. 149.

¹²¹ *Application of the Interim Accord of 13 September 1995 (Former Yugoslav Republic of Macedonia v. Greece)*, Judgment, 5 December 2011, ICJ Reports (2011) 644, para. 132.

¹²² *Military and Paramilitary Activities in Nicaragua*, Jurisdiction, *supra* note 50, para. 88.

we can see some ritualistic quotations, as evidenced by the Court recalling the definition of a dispute and even using nested quotes. On the other hand, even among this top-five list of items, rather technical issues are addressed as well, such as the law of remedies. Although the number of repetitions thus points to some ritualism, the citations' content indicates an elevated level of legal sophistication that is not necessarily expected from a ritualistic practice.

An analysis of the remainder of the quotations supports the view that the ICJ is ritualistic in order to settle points of law through repeated referral or 'settled jurisprudence'. Most repeated quotations relate to key points of law that the Court has developed either substantively or procedurally in its past jurisprudence. Among these procedural developments are the standard of proof¹²³ or the type of evidence considered.¹²⁴ In its substantive dimension, the law of the sea features prominently¹²⁵ as well as treaty interpretation.¹²⁶ The Court's ritualism thus seems to be a communication strategy to emphasize the 'settled jurisprudence' it has created, which further supports our earlier findings.

At the same time, the fact that 86 per cent of all quotations are unique shows the high degree of non-routine use of citations. These citations relate to points of law less frequently invoked and often include issues brought forth by the parties rather than by the Court, such as state responsibility and compensation,¹²⁷ distinctions between rights and interests¹²⁸ or points of admissibility, such as the issue of *res judicata*, which

¹²³ See, e.g., quotations such as: '[N]ot by disputable inferences but by clear and convincing evidence which compels such a conclusion,' as found, for example, in *Application of the Interim Accord*, *supra* note 121, para. 132.

¹²⁴ See, e.g., quotations such as: 'The Court will treat with caution evidentiary materials specially prepared for this case and also materials emanating from a single source. It will prefer contemporaneous evidence from persons with direct knowledge. It will give particular attention to reliable evidence acknowledging facts or conduct unfavourable to the State represented by the person making them', quoted, for instance, in *Application of the Convention on Genocide (Bosnia v. Serbia)*, *supra* note 51, para. 213.

¹²⁵ See, e.g., *Territorial and Maritime Dispute (Nicaragua v. Colombia)*, *supra* note 39, quoting 'the land is the legal source of the power which a State may exercise over territorial extensions to seaward' (para. 140) or '[t]he purpose of delimitation is not to apportion equal shares of the area, nor indeed proportional shares. The test of disproportionality is not in itself a method of delimitation. It is rather a means of checking whether the delimitation line arrived at by other means needs adjustment because of a significant disproportionality in the ratios between the maritime areas which would fall to one party or other by virtue of the delimitation line arrived at by other means, and the lengths of their respective coasts' (para. 158).

¹²⁶ See, e.g., quotations such as: '[A] treaty must be interpreted in good faith in accordance with the ordinary meaning to be given to its terms in their context and in the light of its object and purpose. Interpretation must be based above all upon the text of the treaty. As a supplementary measure recourse may be had to means of interpretation such as the preparatory work of the treaty and the circumstances of its conclusion', as found, for instance, in *Sovereignty over Pulau Ligitan and Pulau Sipadan (Malaysia/Singapore)*, Judgment, 17 December 2002, ICJ Reports (2002) 625, para. 37.

¹²⁷ See, e.g., quotations such as: 'It is a well-established rule of international law that an injured State is entitled to obtain compensation from the State which has committed an internationally wrongful act for the damage caused by it', as found, for instance, in *Application of the Convention on Genocide (Bosnia v. Serbia)*, *supra* note 51, para. 97.

¹²⁸ *Ahmadou Sadio Diallo (Republic of Guinea v. Democratic Republic of the Congo)*, Judgment, 30 November 2010, ICJ Reports (2010) 640, para. 156, for instance, quotes: '[D]istinction between injury in respect of a right and injury to a simple interest. ... Not a mere interest affected, but solely a right infringed involves responsibility, so that an act directed against and infringing only the company's rights does not involve responsibility towards the shareholders, even if their interests are affected.'

is often raised as a preliminary objection.¹²⁹ This in turn supports our earlier findings that litigants turn to citations to craft their arguments around precedent to gain an upper hand in litigation. In sum, the ICJ citation practice suggests some ritualistic use primarily geared towards emphasizing its ‘settled jurisprudence’. The majority of citations, however, appear uniquely and are employed argumentatively rather than ritualistically.

D Complexity: Institutional Achievement or a Barrier to Access to Justice?

The finding that citations are used in ICJ judgments argumentatively rather than ritualistically means that the growth and increasing density and diversity of citations identified earlier in this article make litigation before the ICJ more complex. It is not enough for counsel or judges to know a few central cases. Rather, litigants need to master a growing and increasingly diverse pool of precedents to effectively package their claims or defences, and judges need to digest and rationalize a larger array of precedential sources in their resolution of disputes and the development of the law. The expansion of the ICJ citation network and the accompanying complexity premium is both a blessing and a burden for the Court and its litigants. On the one hand, it is a blessing since the growth in citations attests to the vitality of the ICJ. While the number of new cases brought each year is an indicator of a court’s current relevance, the way litigants deal with its past decisions epitomizes parties’ view on the broader role of a court. Litigants opt into ICJ dispute settlement to benefit from the legacy, expertise and predictability conferred by its continuous reliance on prior cases. This, in turn, strengthens the Court’s law-developing function as parties rely on its past decisions to craft their legal arguments.¹³⁰ Hence, the fact that parties cite past ICJ cases with increased frequency can be seen as an endorsement of its past performance and an attestation to its lasting importance as the premier dispute-settlement institution for classic international law disputes, notwithstanding the proliferation of competing venues.

On the other hand, the growth of citations also has a less rosy side to it. Growing complexity may exacerbate already existing access-to-justice problems faced by countries with low bureaucratic capacity. In a 2001 study, Kurt Gaubatz and Matthew MacArthur found that Organisation for Economic Co-operation and Development (OECD) countries tend to draw on in-house lawyers to staff legal teams in ICJ litigation, whereas most non-OECD litigation teams are made up of a majority of foreign lawyers.¹³¹ A subsequent study by Shashank Kumar and Cecily Rose confirms

¹²⁹ The ‘primacy of the principle of *res judicata*’ was also referred to multiple times, including in *Temple of Preah Vihear*, *supra* note 21, para. 55.

¹³⁰ In a sphere without central law-making, the Court’s decisions constitute important reference points for the content of customary international law or general principles of law. See Schwebel, ‘Docket and Decisionmaking Process of the International Court of Justice’, 13 *Suffolk Transnational Law Journal* (1990) 543, at 547.

¹³¹ Gaubatz and MacArthur, ‘How International Is International Law’, 22 *Michigan Journal of International Law* (2001) 239, at 251–254.

that three quarters of all lawyers presenting oral arguments before the ICJ between 1999 and 2012 were from OECD countries.¹³² The growing complexity of ICJ litigation through its ever-denser self-citation network is likely to further increase reliance on Western lawyers who can provide the expertise required to navigate through this maze of potentially relevant precedents.

In addition, increased complexity has repercussions for states' compliance with their international legal obligations, since ICJ precedents are important guideposts in states' assessment of their actions' conformity with international law. With precedential networks growing denser and more complex, states will find it more difficult to use prior ICJ case law as a compass in ensuring the legality of their acts. While recourse to the UN Secretary General's trust fund or a reliance on counsel's *pro bono* activity can help low-capacity states to shoulder the cost of litigation,¹³³ more long-term efforts should focus on better managing the increased complexity of the ICJ's precedential web. In other legal domains, the growth of jurisprudence and precedent has been accompanied by the creation of case search engines, such as the ECtHR's HUDOC database,¹³⁴ or open-access case law digests, such as the WTO's Analytical Index.¹³⁵ Even though the caseload of the ICJ remains comparatively small, similar efforts could make the World Court's jurisprudence more accessible to generalist lawyers and government representatives, especially from developing countries, free of charge and be used in supporting legal research and education.

7 Conclusion and Future Research

In this article, we conducted the first comprehensive analysis of ICJ self-references investigating 1,865 citations in more than 120 ICJ judgments rendered between 1948 and 2013. Our research yielded several new and important findings that point to a growing complexity in the ICJ self-citation network. First, arguing on precedent has become increasingly important before the Court as prior ICJ judgments are cited with more frequency. The growing body of past decisions or the ICJ's mounting caseload cannot alone explain this increase. Instead, a combination of subject matter concentration and issue diversification is responsible. Concentration, in turn, arguably reflects the Court's strategy to place more emphasis on the legacy, expertise and predictability of its jurisprudence, thereby asserting its continued importance in an environment marked by the proliferation of adjudicatory institutions. Issue diversification, on the other hand, is driven primarily by litigants that increasingly craft their arguments around precedent on crosscutting issues to gain an upper hand in litigation.

¹³² Kumar and Rose, 'A Study of Lawyers Appearing before the International Court of Justice, 1999–2012', 25 *EJIL* (2014) 893.

¹³³ On the Secretary-General's Trust Fund to Assist States in the Settlement of Disputes through the International Court of Justice, see generally Bekker, 'International Legal Aid in Practice: The ICJ Trust Fund', 87(4) *American Journal of International Law* (1993) 659.

¹³⁴ The European Court of Human Right case law database is available at <http://hudoc.echr.coe.int/>.

¹³⁵ WTO Analytical Index: Guide to WTO Law and Practice, available at www.wto.org/english/rese/book-spe/analyticindexe/analyticindexe.html.

Second, in contrast to other courts, like the CJEU, citations are not primarily used ritualistically to habitually restate the law before the ICJ, but are employed argumentatively to frame legal assertions and defences in light of past practice. Where courts and litigants employ citations argumentatively, an increase in the use of precedents places greater demands on parties and judges to effectively navigate the maze of judicial authorities. The growth of scope and diversity in citations thus makes litigation before the ICJ more complex. On the one hand, the increased recourse to past ICJ decisions in litigation underscores the Court's continuous importance. On the other hand, it also enhances access-to-justice barriers, as low-capacity countries will find it more difficult to come to grips with the growing complexity of its case law. Online, open-access tools that reduce part of that complexity may help low-capacity stakeholders to navigate ICJ jurisprudence more effectively.

As the first study on the ICJ citation network, this article also raises a number of questions that would benefit from future research and points to new lines of empirical inquiry. To begin with, interview-based or statistical methods could validate or challenge the findings presented here or further explore the causes of the growing number of self-citations. Why, for instance, do we see the observed shift towards a common law litigation culture? Are more common law-trained lawyers sitting on the bench or representing parties today than ever before? Is litigation before international courts becoming more common law-like in general? In relation to the identified paradox that the ICJ produced its most influential decisions while facing an all-time low of newly submitted disputes, future work could investigate this relationship further, identifying alternative measures of what makes a decision influential or trying to generalize our finding: do courts in crisis perhaps make better law? Finally, our data could be used to study other aspects of the ICJ citation network. How often does the ICJ cite other courts? Do majority decisions and dissenting or separate opinions differ in their use of citations? Beyond its argumentative or ritualistic use of precedent, how does the ICJ differ in its citation patterns from those of other courts and tribunals? The empirical analysis of citation networks, in particular, those of the ICJ, has many secrets yet in store.