Precedent on International Courts: A Network Analysis of Case Citations by the European Court of Human Rights

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Abstract

Political scientists have paid little attention to the manner by which international courts justify their decisions and develop legal norms. We argue that, like domestic review courts, the international courts use legal justifications at least in part to convince “lower” (domestic) courts of the legitimacy of judgments. Several empirical observations are consistent with this view, which we examine through a network analysis of European Court of Human Rights (ECtHR) citations. First, the Court cites precedent based on the legal issues in the case, not the country of origin. Second, the Court is more careful to embed judgments in its existing case law with respect to the more politically sensitive decisions and in cases from countries with common law legal systems.

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Why and how do international courts justify decisions with citations to their own case law? These questions are interesting for at least two reasons. First, international courts are primarily delegated the authority to resolve specific disputes rather than to develop legal principles. Yet, international courts do _de facto_ use precedent and their judgments have become a significant source of nonconsensual international law making (e.g., Helfer 2008). We know very little, however, about this process. Do international courts succeed in meeting the core ambition of international law to rise above the interests, identities, and rivalries of nation-states by developing a network of case law based on legal rules rather than national differences?

Second, while citations are commonly used in the domestic courts literature to test theories of judicial behavior, this has not yet been explored in the international arena. This is unfortunate, as a citation analysis can shed light on core questions about if and how judges anticipate responses to their judgments by external actors. Some argue that international judges tend to be insulated and behave like trustees who act according to professional legal norms rather than political prerogatives (e.g. Majone 2001, Alter 2008). Others claim that the uncertain compliance environment makes international judges highly susceptible to political pressures (Garrett and Weingast 1993; Garrett et al. 1998; Stephan 2002; Carrubba et al. 2008). We build on both perspectives by proposing a strategic legitimation model in which international judges construct case law based on the assumption that they are primarily communicating with other legal professionals who value legal consistency. Yet, judges are motivated by concerns about non-compliance. They therefore exert more effort to justify their decisions with references to authoritative precedent when they perceive that pressures on domestic actors not to implement judgments are high.
We examine these issues on the most prolific international court: the European Court of Human Rights (ECtHR). Following recent analyses of citation patterns by the US Supreme Court (USSC), we apply network analysis to study the use of precedent (Fowler et al. 2007; Fowler and Jeon 2008; Bommarito et al. 2010). Doing so allows us to assess general patterns in the way citations become connected to each other. We focus on two dimensions of the Court's citations practices. The first is the extent to which the Court's judgments rely on citations to precedent in order to justify the Court's decision. By using network analysis, we can measure not just whether judgments cite greater numbers of precedent but also the extent to which the opinion cites cases that have significantly influenced the Court's corpus of jurisprudence. These measures can then be used to evaluate hypotheses about the characteristics of cases that spur the judges to be more exhaustive in their justifications. Second, we use network analysis to identify the communities (or clusters) of jurisprudence within the overall network of ECtHR citations. This allows us to analyze whether membership in these communities is determined by national characteristics of the respondent governments or legal characteristics of the cases, which helps us understand how ECtHR judges choose the precedents they cite.

Consistent with the strategic legitimation model, we find that the ECtHR exerts more effort to justify its judgments with citations to precedent on politically sensitive cases, such as those that involve physical integrity rights and those where the government has challenged the Court’s jurisdiction. Moreover, ECtHR judgments are more embedded in precedent when the Court decides cases from common law countries where domestic courts rely more strongly on precedent and thus the persuasive value of case law citation is highest. Other country-specific factors, such as legal culture, have relatively minor effects on the extent to which an ECtHR judgment is embedded in precedent. Not only does the Court strategically rely more on
precedent in some cases, our evidence suggests its judges strategically cite certain types of cases. The communities of case precedents in the ECtHR citations network are not significantly determined by country-specific factors. Instead, these communities are determined by the legal substance of cases. This evidence is not consistent with a relativist perspective that the court uses different justifications for different (legal) cultures. It is also inconsistent with a view that citations purely serve an internal communication function.

Aside from these theoretical points, we also offer descriptive and methodological contributions. The application of network analysis to judicial citations is a relatively novel area of research. Just as scholars learned a great deal from applying empirical spatial models of legislative voting to alternative institutional settings (Poole and Rosenthal 2001), we can learn much from extending the application of network analysis to a new institutional environment. Ours is the first study that applies network analysis to an international court and that explains the substantive nature of the different communities in a legal citations network. Our most notable methodological finding is that the network of ECtHR citations is a scale-free network, like most citation networks (especially academic citations).

The application of network analysis to ECtHR citations reveals much that should be of interest to the Court’s observers, such as the communities of jurisprudence within the Court's corpus and what judgments are more or less central in its case law. This matters greatly as the ECtHR is an institution of growing significance. The Court issued more than 10,000 judgments that are binding on its 47 member states, including twenty states outside the European Union such as Russia and Turkey.¹ The Court is widely seen as the most effective human rights regime in the world and has greatly affected national legal orders throughout Europe (Keller and Stone Sweet 2008). Like the USSC, the ECtHR allows individuals to challenge that a government act,
practice or law is inconsistent with a supreme body of law: the 1950 European Convention for 
the Protection of Human Rights and Fundamental Freedoms (hereafter: the Convention). USSC 
citations to ECtHR jurisprudence have caused controversy in the U.S. (Zaring 2006). Moreover, 
a growing debate exists on whether the ECtHR has become a *de facto* constitutional court that 
develops precedent in ways that are similar to the USSC (e.g., Stone Sweet 2009).

We proceed by first discussing the alternative models regarding the role that citations to 
precedent play in international courts. We then analyze the properties of the network of ECtHR 
citations, including by comparing them to those of the USSC, before turning to an analysis of 
reliance on precedent and communities within the ECtHR network.

**Theoretical Perspectives on the Use of Precedent by International Courts**

The role and usage of precedent on international courts is unclear. Most international 
tribunals are explicitly asked to limit their focus to the dispute at hand. For example, Article 59 
of the ICJ’s Statute proclaims that “The decision of the Court has no binding force except 
between the parties and in respect of that particular case.” Yet, the ICJ motivates its resolution 
of disputes with extensive references to its past opinions and considers these precedential 
(Shahabuddeen 2007). *De facto* norms of *stare decisis* also operate at the WTO (Busch 2007). 
Similarly, although the ECtHR has to “confine its attention as far as possible to the issues raised 
by the concrete case before it,” it relies heavily on its past decisions, has no trepidations in 
referring to these decisions as “precedent,” and has developed an elaborate system to keep track 
of its case-law (Wildhaber 2000).

The most intuitive purpose of citations is to develop an internally consistent body of law 
that dispenses with cases efficiently. Given the enormous backlog at the ECtHR (over 125,000 
cases as of early 2010), it may be efficient to avoid revisiting previously resolved legal issues.
The persuasive force of precedent may help a collegial panel of judges reach consensus. The internal perspective implies that case law citations should be chosen based on similarity in the legal issues involved rather than characteristics of the respondent governments. Moreover, it suggests that variation in the extent to which a decision is made with reference to past case law is primarily a function of how many cases with similar legal issues have previously been resolved.

Yet, the literature (especially on U.S. courts) suggests that judges also cite past cases to help legitimize their decisions to external audiences (e.g., Merryman 1954; Harris 1985; Tyler & Mitchell 1994; Hansford & Spriggs 2006; Hume 2006; Corley et al. 2005). Any court that resolves a dispute between parties must tell the losing parties why they lost. In all modern societies, judges tell the loser: "You did not lose because we the judges chose that you should lose. You lost because the law required that you should lose" (Shapiro 1994). Demonstrating the consistency of a decision with past decisions may alleviate the losing party’s potential to claim that a decision was whimsical or motivated by non-legal considerations. Such considerations are no less relevant on the ECtHR. For example, Alec Stone Sweet (2009, p.1) points out that:

“[..] judges in Strasbourg confront the same kinds of problems that their counterparts on national constitutional courts do; and they use similar techniques and methodologies to address these problems. [...]he Court performs its most important governance functions through the building of a precedent-based jurisprudence. Through precedent, the Court seeks to legitimize its lawmaking, to structure the argumentation of applicants and defendant States, and to persuade States to comply with findings of violation.”

The Court has reasons to be concerned about compliance, even from established democracies (e.g., Von Staden 2009). For example, the 2009 annual report from the Council of Europe’s Committee of Ministers, which supervises the execution of ECtHR judgments, highlights that in only 36% of cases payments of just satisfaction were made on time. Moreover, there were over 7,000 pending “clone cases” whose legal issues had been resolved in a “leading case” but where insufficient domestic measures were taken to prevent renewed findings of
violations. In addition, the report found that almost half of the “leading cases” had been awaiting a final resolution for more than two years. While the Committee’s role in disseminating information is important, its reports continuously emphasize that it lacks coercive means and that improvements in implementation depend on “[..] the principle of subsidiarity and the need to ensure that domestic remedies become truly effective.” So, persuading domestic parties to implement judgments is an integral component of ensuring compliance.

If the purpose of citations is at least partially to persuade external actors, then there is much more to judges’ choices of citations than a mechanical reliance on the most relevant precedents (Epstein & Knight 1998). To start with, the choice of which precedent to cite should depend on the characteristics of the audience at whom the decision is targeted (Hume 2006). For two reasons, we argue that legal professionals in bureaucracies and especially domestic courts are the most important audiences for the ECtHR’s citations. First, while it is unlikely that a politician will be more persuaded by the degree to which an unfavorable decision is justified with past case law, such justifications may well make a judgment more persuasive to professionals trained to evaluate legal arguments. Second, legal professionals working in administrations, but especially domestic courts, have important roles to play in the implementation of ECtHR judgments. All Council of Europe member states either give the Convention direct effect or have adopted the Convention into national law. This means that domestic judges can interpret the Convention and could, if they so choose, use ECtHR interpretations as a guideline. This is important not only to ensure implementation of its immediate judgments but also to ensure that the legal principles it establishes have a broader effect. As the Court put it in 2003:

“Although the primary purpose of the Convention system is to provide individual relief, its mission is also to determine issues on public-policy grounds in the
common interest, thereby raising the general standards of protection of human rights and extending human rights jurisprudence throughout the community of Convention States.”

Our suggestion is that the ECtHR’s use of precedent is at least partially aimed at persuading domestic courts and other legal professionals to interpret the law in the manner the ECtHR does. We distinguish two alternative ways in which the ECtHR may use citations to achieve this purpose. The strategic approach argues that judges exert more effort to justify their decisions with precedent when political actors are most likely to oppose implementation and when domestic courts are most likely to value precedent. By contrast, the relativist approach argues that judges adjust case law citations to take account of the ECtHR’s diverse membership.

The strategic approach starts with two basic assumptions. First, ECtHR judges believe that the domestic judges they communicate with are more likely to be persuaded by decisions that are embedded in prior case law and are more likely to implement more persuasive judgments than less persuasive ones. Second, embedding decisions in relevant case law is costly as it requires effort on the behalf of ECtHR judges, an assumption shared by the literature on U.S. courts (e.g., Lax & Cameron 2007; Lupu & Fowler 2010). If these assumptions hold, then the ECtHR should exert more effort in embedding decisions into previous case law when the benefits to persuading domestic judges are greater.

The strategic legitimation perspective converges with the internal perspective on the basis by which judges select cases for citation. What Slaughter (2003) calls the “global community of courts” is “[…] forged more by their common function of resolving disputes under rules of law than by the differences in the law they apply and the parties before them” (p. 192). Thus, in order to be persuasive, ECtHR judges should choose the precedents they cite based on the legal issues in the case, not based on the characteristics of the country in question. Yet, the strategic
legitimation perspective does differ in its predictions regarding which judgments will be more or less strongly embedded into case law.

Stronger legal justification is needed on cases on which domestic courts and legal professionals are more likely to experience pushback from politicians. As Harris (1985, pp. 209-10) puts it "[..] legitimacy is always an intrinsically difficult achievement for courts, but some decisions require more legitimation, and thus more display of information, than others" (see also Hume 2006). We suggest three signifiers of cases where domestic legal actors are likely to face political pressure to interpret the legal facts in a light more favorable to an executive. First, cases that invoke physical integrity rights, such as right to life and a prohibition on torture, go to the heart of executive control over a society. In such cases, the Court may be more diligent in justifying its judgment with citations precedents that demonstrate that similar norms have been applied elsewhere than, for example, in a case that involves procedural or civil violations.

Second, the Court should more thoroughly embed its decisions in case law when it finds a violation against a government. Findings of no violation communicate meaningful information to domestic courts about the proper interpretation of the Convention. Yet, on such judgments domestic courts do not face pressure to go against the ECtHR’s finding and thus need less persuading to implement judgments. Third, the ECtHR may exert more effort when it rejects a preliminary objection. Preliminary objections are arguments filed by governments that a case should not be evaluated on the merit. These are cases in which a respondent government explicitly claims the Convention does not apply but the ECtHR finds otherwise. This may signal a desire to ignore a ruling.

In addition, extensively justifying decisions with reference precedent may be a more important tool of persuasion when communicating with common law courts than with civil law
courts. Precedent-based jurisprudence is relatively more important in the former legal system (Troper & Grzegorczyk 1997) and so may be more likely to persuade common law judges. This should give ECtHR judges additional incentives to justify their decisions with past case law. These observable implications all diverge from a purely internal perspective in the sense that the latter perspective does not provide any reason to expect that the strength of justification should vary according to how politically sensitive the implementation of a judgment is or how receptive the audience is likely to be.

Unlike the internal and the strategic perspectives, a relativist perspective does not expect that the Court is blind to national differences in its choice of what case law to cite when it justifies decisions. For example, Lasser (2004) has argued that the perceived legitimacy of specific forms of legal reasoning depends crucially on cultural context. What he calls the “particular problematic” of legal justification “shapes (and is shaped by) the judicial system that addresses it, thereby conceptually creating and recreating that system’s particular argumentative, conceptual, and institutional universe” (p. 298). Several legal scholars suggest that cultural relativist methods of legal interpretation have entered the ECtHR’s jurisprudence via the “margin of appreciation doctrine” (see the discussion in Sweeney 2005), which holds that each country has some latitude to resolve conflicts that arise between individual rights and the perceived national interests or values of that country (e.g., Yourow 1996). This doctrine was first explicitly stated in the 1976 Handyside v. UK judgment in which the Court reasoned that:

“It is not possible to find in the domestic law of the various Contracting States a uniform European conception of morals. The view taken by their respective laws of the requirement of morals varies from time to time and from place to place which is characterized by a rapid and far-reaching evolution of opinion on the subject. …[This] leaves to the Contracting States a margin of appreciation.”

If this relativist reasoning applies to the choice of citations, case law used to justify findings of violations by the UK (and other common law countries) may not be particularly
persuasive for domestic courts in civil law countries. This would mean that cases from a certain country will tend to cite other cases from the same country or other, similar countries. At the aggregate level, the prediction would be that communities of case law exist based on the legal origin of the countries against which judgments were issued. By contrast, both the strategic and internal model would predict that the communities of case law would be defined based on the substantive issues in the case. One prediction shared by the relativist approach and the strategic approach is that embedding judgments into case law may be more important when communicating with common law courts that operate in a legal culture where case law is more important.

Table 1 summarizes the observable implications of these three theoretical perspectives. The theoretical perspectives are not mutually exclusive in all their expectations. For example, we do not doubt that improving efficiency is among the reasons why the ECtHR cites case law. Yet, theoretically we are particularly interested in uncovering patterns of citations that suggest if and how ECtHR judges also anticipate responses from external actors.

[Table 1 about here]

**The ECtHR Citations Network**

To illustrate how citations can be analyzed as a network, consider a series of landmark judgments in the ECtHR’s case law on torture and national security. The ECtHR’s judgment in *Ireland v. the United Kingdom* (1978) established that no derogation is permissible from state obligations to refrain from torture even in the event of a security emergency, such as the IRA’s terrorist attacks. This principle is referred to in *Chahal v. United Kingdom* (1996), which established a prohibition on extradition of individuals to countries where they may be tortured, even if the individuals are suspected terrorists. Both of these cases were cited in *Aksoy v. Turkey*
(1996), in which the Court established that when an individual (in this case a suspected Kurdish terrorist) is taken into police custody in good health but is found injured on release, the burden is on the state to provide a plausible explanation that no torture took place. All three of these cases were cited in the more recent cases of *Balyemez v. Turkey* (2005) and *Ahmet Ozkan and Others v. Turkey* (2004), both of which addressed cases of Turkish security forces destroying Kurdish villages. The relationships between these cases in the network are shown in Figure 1.

[Figure 1 about here]

We have data on all 7319 cases the Court decided until 2006. These judgments included 35,963 citations to previous Court decisions. Like the citations networks studied by other scholars (e.g., Fowler et al. 2007), the Court’s citations network has one main cluster and a large number of isolated cases. Following the work of prior citation studies, we exclude these cases from our analysis because they are effectively not part of the citations network. Thus, we are left with a main cluster of 6172 cases and 35,962 citations. An important institutional difference between the ECtHR and the USSC is case selection. The certiorari system allows the USSC to focus its activities on resolving fundamental questions about how the Constitution should be interpreted. Instead, the ECtHR must accept all cases that meet admissibility criteria. A large number of its cases are straightforward applications of case law in which no new legal issues arise. We exclude such judgments from our database as they provide no information about our questions of interest. Having done so, we are left with a network of 2222 cases and 16,863 citations.

Judgments can invoke multiple articles of the Convention. The article most frequently invoked in judgments is Article 6, with which about half of the decisions in the network are concerned. This article provides for the right of access to fair, speedy, and independent courts.
Because most Article 6 cases involve clause 6-1, and the latter set of cases represent 46% of all the cases in the network, we analyze Article 6-1 cases separately from other Article 6 cases in the remainder of this paper. Article 8 (19%) provides for a broad right to privacy from government authority, subject to exceptions such as national security and public safety. Article 13 (19%) provides that national authorities must provide an effective remedy to persons whose rights under the Convention have been violated, including in cases where those violations were committed by persons acting in an official capacity. Article 5 (17%) guarantees a right to liberty, subject to exceptions such as lawful detention. The first Article of Protocol 1 (16%) provides a right to the enjoyment of one's possessions. Article 3 (15%) prohibits torture and other inhuman treatment. Article 14 (11%) prohibits discrimination in the enjoyment of Convention rights on bases such as gender, race, religion and political affiliation. Article 10 (11%) provides for the freedom of expression, subject to exceptions such as national security and public safety. Finally, Article 2 (7%) provides for a general right to life, subject to limited exceptions such as self-defense or lawful execution. Turkey has the plurality of cases in the data (14%), followed by France (12%), the United Kingdom (11%) and Italy (8%).

A useful way of summarizing the properties of the ECtHR citations network is by examining the distributions of inward citations (i.e., citations to a case) and outward citations (i.e., citations from a case), both of which are shown on log-log plots in Figure 2. Most decisions are cited by a small number of cases and, by contrast, few decisions are cited by many cases. Similarly, most of the decisions cite a small number of precedents, but a few decisions cite many precedents. This is a common feature in large-scale networks (Albert and Barabási 2002), including scientific citation networks (Boerner et al. 2004; Borgatti and Everett 1999). Interestingly, the distributions of citations differ from those in the network of USSC citations,
also shown in Figure 2. The ECtHR has a smaller share of decisions with very few outward citations as compared to the USSC, which may be the result of a more developed norm of *stare decisis* in the modern era as compared to the early years of the USSC. The patterns of inward citations closely resemble the power-law distribution of other complex networks, often referred to as scale-free networks, including the World Wide Web (Albert et al. 1999), social networks (Ebel et al. 2002), and even interactions between proteins (Jeong et al. 2001).

Figure 2 shows how the average numbers of inward and outward citations have changed over time on both the ECtHR and the USSC. The decline in the number of inward citations in recent years is due to the fact that these cases have been in the network for a relatively short time. Of greater interest is the upward trend in the number of outward citations. On the ECtHR, there is a particular uptick in the number of outward citations in 1999, the first year of the post-Protocol XI Court. Before the adoption of this protocol, states were allowed to exempt themselves from compulsory jurisdiction and direct access for private litigants. Protocol XI made both private access and compulsory jurisdiction mandatory. Moreover, the Protocol implemented further institutional reforms that made the ECHR a full-time court and better insulated the judges. Although the two networks have significant size and temporal differences, we note that both display an overall growth in outward citations over time and a decrease in inward citations to newer cases.

Figure 3 shows how the average numbers of inward and outward citations have changed over time on both the ECtHR and the USSC. The decline in the number of inward citations in recent years is due to the fact that these cases have been in the network for a relatively short time. Of greater interest is the upward trend in the number of outward citations. On the ECtHR, there is a particular uptick in the number of outward citations in 1999, the first year of the post-Protocol XI Court. Before the adoption of this protocol, states were allowed to exempt themselves from compulsory jurisdiction and direct access for private litigants. Protocol XI made both private access and compulsory jurisdiction mandatory. Moreover, the Protocol implemented further institutional reforms that made the ECHR a full-time court and better insulated the judges. Although the two networks have significant size and temporal differences, we note that both display an overall growth in outward citations over time and a decrease in inward citations to newer cases.

[Figure 2 about here]

**Which Judgments Are More or Less Strongly Embedded in Case Law?**

In order to test the hypotheses provided by the alternative models of citation behavior, we analyze the extent to which ECtHR decisions cite important precedents by relying on the
network concept of centrality. Decisions that are more central are those that are deeply embedded in the network, either because of the extent to which they cite other decisions or because they have been cited by other central decisions, and most often for both reasons. By contrast, decisions that are peripheral are not well-connected to other precedents in the network. Scholars of U.S. courts have developed measures of centrality that carry considerable face validity as measures of the importance of precedent (Fowler et al. 2007; Fowler and Jeon 2008). The measurement procedure identifies the extent to which judgments serve as hubs and authorities within the citations network, based on a method developed by Kleinberg (1999). A hub is a judgment that cites many other judgments, helping to define which legally relevant decisions are pertinent to a given precedent. An authority is a judgment that is widely cited by other judgments.

Most judgments act as both hubs and authorities, and the degree to which they fulfill these roles is mutually reinforcing within the network of cases. An opinion that is a good hub cites many good authorities, and an opinion that is a good authority is cited by many good hubs. Two factors directly affect the hub score of a case: (1) the number of other cases it cites; and (2) the authority scores of the cases it cites. Thus, while it is possible for a case to have a large hub score by simply citing many unimportant cases, the cases with the largest hub scores are ones that cite many important precedents. Thus, the hub score is a good measure of the extent to which an opinion relies on citations to precedent to justify the Court's decision. It should be noted that these scores are dynamic. For example, the hub score of a given opinion may change over time as the cases it cites are cited (or not cited) by other cases because that activity causes their authority scores to change. Similarly, the authority score of a case may change as it cited by more cases, especially if those cases have large hub scores.
Fowler and Jeon (2008) calculated hub scores and authority scores for all USSC majority opinions through 2002. They showed that the scores are consistent with expert opinions of the most influential cases and can be used to predict which cases will be identified as important in the future. Unfortunately, we have no similar external data to validate the ECtHR authority scores but the scores do have face validity. The judgment with the largest authority score is the 1978 landmark *Ireland v the United Kingdom* case, one of the Court’s rare inter-state cases. The Court's own ranking of the importance of cases can also be used to assess measurement validity. The mean authority score for Level 1 cases is 24.6, while the mean authority score for Level 2 cases is 6.7, a significant difference at the 99% level. In addition, cases that come to the Court from the Grand Chamber, which are generally more important, have a mean authority score of 33.4, while other cases have a mean authority score of 6.4, a significant difference at the 99% level.

We can use the hub scores of ECtHR to test Hypotheses 1-4. Hypothesis 1 states that cases addressing the legal issues that appear most often before the Court should have larger hub scores. Hypothesis 2 asserts that that Article 2 and 3 cases have larger hub scores. Hypothesis 3 maintains that decisions against governments and where the Court overturns a preliminary objection have larger hub scores. Finally Hypothesis 4 states that cases from common law countries should have larger hub scores than those from other legal traditions.

We focus on the hub scores of opinions when they were published (INITIAL HUB SCORE) because we want to know the extent to which the opinion was embedded in the precedent network at that time (see Lupu & Fowler 2010; Cross et al. 2010). We include several dummy variables indicating the type of legal system used in each case's country of origin (LEGAL ORIGIN), using data from La Porta et al. (1998). The base category is the common law system.
The income level of a respondent country may be related to the severity of the alleged violation, so we also include a measure of the natural log of per-capita GDP of the country of origin during the year in which the case was decided, using data from the Penn World Tables (Heston et al. 2009) (LOG PER CAPITA GDP). To determine the extent to which the legal substance of a case affects the INITIAL HUB Score, we include several dummy variables that indicate whether the decision addressed the provisions of the Convention that are invoked most frequently in the network (coded "1" if yes and "0" if no). While we have only made ex ante predictions with respect to Article 2 and 3, it may be the case that other legal issues have significant relationships with the extent to which ECtHR judgments are embedded in precedent. Because countries tend to violate (or allegedly violate) the same provisions of the Convention on multiple occasions, there is some correlation between the country of origin of the cases in the network and the legal substance of those cases. For example, 148 of the 265 French cases in the network involve Article 6-1. Thus, our research design is intended to untangle this correlation in order to determine whether country characteristics or legal substance is more important to the ECtHR judges’ choices of precedents.

Several other characteristics of decisions may also affect the extent to which the Court relies on citations to precedent in its judgments. To test Hypothesis 3, we include dummy variables indicated cases in which the Court finds that a government has violated the Convention (VIOLATION FOUND) and those in which it rules against a country's preliminary objection (PRELIMINARY OBJECTION REJECTED). To test Hypothesis 1, we include a count of the number of previous cases that addressed one or more of the articles addressed in the present case (PREVIOUS CASES ON ARTICLE). Because the Grand Chamber tends to take on more salient cases, it may be the case that its decisions will exhibit a greater reliance on precedent, so we include an
indicator for these cases (GRAND CHAMBER). As noted above, the Court began relying more
greatly on citations to precedent after the implementation of Protocol XI, so we control for
whether the case was decided before or after this event (POST-PROTOCOL XI). Finally, we note
that, by virtue of the algorithm used to calculate them, INITIAL HUB SCORES decline over time as
more cases enter the network. Because this decline reflects the construction of the network
measures rather than a substantive change in the extent to which decisions are grounded in
precedent, we control for the number of prior cases in the network (NETWORK CASES). Finally,
because our dependent variable is bound to be positive and has a large number of values
clustered at zero (i.e., opinions that cite no case precedent), we use Tobit regression (Tobin 1958). We estimated this model using the Zelig package (Imai et al. 2009)\textsuperscript{18} and calculated the
effect sizes of the explanatory variables on INITIAL HUB SCORE, which we report in Figure 4.

[Figure 4 about here]

A first key finding is that those decisions dealing with the most sensitive physical
integrity rights (Articles 2 and 3) have significantly larger INITIAL HUB SCORES, which supports
Hypothesis 2. As we argued above, these difficult cases are the ones in which the Court is likely
to have the greatest need to justify its decisions. In addition, several other areas of law appear to
affect the INITIAL HUB SCORE. Cases involving Articles 5 (right to liberty) or 13 (effective
remedy) also result in larger INITIAL HUB SCORES, suggesting these are also areas where
legitimacy is of great concern to the Court. These findings are not surprising because Article 5
cases also often involve physical integrity rights, whereas Article 13 is always invoked in
conjunction with other Convention articles and often accompany controversial Article 2 and 3
cases. Article 13 ensures that victims have a right to an effective remedy “notwithstanding that
the violation has been committed by persons acting in an official capacity.” This article is mostly
invoked when human rights violations were committed by an agent of the state and hence are inherently politically controversial.

Article 6-1 (trial rights) and 8 (privacy) cases generally result in smaller INITIAL HUB SCORES, although these effects are relatively small. A possible reason for this is that these cases lend themselves better to a more contextual interpretation that may rely on precedent to a lesser extent. Another possibility is that these areas of law remains in flux and, therefore, the Court does not have a consistent set of precedents to follow. Interestingly, these two articles have the largest numbers of cases in the sample. Thus, this result indicates that the Court does not simply cite more precedent in areas in which it has decided the most cases, as Hypothesis 1 predicts. In addition, we find that there is no significant relationship between PREVIOUS CASES ON ARTICLE and INITIAL HUB SCORES, which further suggests that the internal model-based prediction made in Hypothesis 1 does not hold.

Our findings also provide some support for Hypotheses 3a and 3b. First, when the Court finds that a government has violated the Convention, it is more careful to justify its finding with reference to prior precedent. The Court also does so when it rules against the preliminary objection of a member-state. The coefficients are of more modest size than those on the Article 2 and 3 dummies, and the coefficient on VIOLATION FOUND is only significant at the .0642 level (two-tailed).

Finally, we examine the relationship between legal origins and INITIAL HUB SCORES. Because the common law system is the base category, we expected to find negative and significant coefficients. The coefficients on all of the categories are negative, although we cannot reject the null hypothesis that the INITIAL HUB SCORES for cases from countries with Socialist legal origins are not significantly different from those from countries with common law
legal origin. In an alternate specification that includes a dummy variable for cases from countries with common law legal origin, the coefficient is positive and significant (p<.001), which supports Hypothesis 4. Moreover the coefficients for legal origin dummy variables are jointly significant. All of these results are robust to the inclusion of an indicator of domestic human rights observance: political terror scores (Gibney 2003) based on Amnesty International reports and U.S. State Department reports (either separately or in combination). The key results are also robust to the inclusion of fixed effects for the respondent country.

Thus far, our analysis supports the strategic legitimation model in four ways. First, national characteristics of respondent governments do not explain why some decisions rely more on citations to precedent than other. This is a key indication that the Court chooses the precedents it cites based on the legal issues in the case, regardless of where those cases originated. The one exception to this is that cases against respondent governments with common law origins appear to be more embedded in case precedent than cases originating in states with certain other legal traditions, perhaps because common law courts are more used to this practice. Second, the Court embeds its opinions with precedent more thoroughly in the most politically sensitive decisions (Articles 2 and 3). Third, the Court is most careful to ground its decisions in authoritative precedent when domestic courts need the most convincing, i.e., in cases in which the Court rules against the respondent country. Finally, the number of prior decisions covering similar issues does not affect the extent to which the Court relies on citations to precedent, as the internal model suggests. In fact, the areas of law with the most cases appear to have significantly smaller INITIAL HUB SCORES.
Communities in the ECtHR Precedent Network

To examine more carefully whether national factors or legal issues influence the types of cases ECtHR judges cite we further analyze the network structure by applying community analysis. Consistent with the network analysis literature, we define a community as a group of cases that cites each other more often than they cite cases outside the community (Porter et al. 2009; Costa et al. 2006; Newman 2004). The method we used to detect the community structure of the network is designed to maximize the extent to which cases placed in a given community cite each other and minimize citations between cases in different communities. In network analysis, this is often referred to as the modularity of a network partition, which is an indication of how well it separates the communities from each other (Newman 2006). Community analysis has been applied in legislative studies of committee membership (Porter et al. 2005), roll-call voting (Waugh et al. 2009) and bill co-sponsorship (Zhang et al. 2008) in the U.S. House of Representatives.

The method we use was described by Newman (2004) and starts with a state in which each decision is a member of \( n \) communities. It then joins these communities in pairs, choosing the pairs that result in the greatest increase or smallest decrease in modularity. The algorithm continues to join communities into pairs until it finds the combination with the highest modularity. At this point, the algorithm assigns an arbitrary community identifier to each case. In the only other paper we are aware of that used community detection algorithms on a network of judicial citations, Bommarito et al. (2010) found that the Newman (2004) method produced stable results when used on the network of USSC citations. They also found that this stability increased when using a smaller portion of the network, which is encouraging to our research because the ECtHR network is significantly smaller than the USSC network. The Newman
method detects seven communities in the network of ECtHR citations. The first four communities contain 226, 792, 860 and 313 cases, respectively. Because communities 5 (21 cases), 6 (5 cases), and 7 (5 cases) contain so few cases, it is unlikely that we can gain any meaningful insight from them into the structure of the citations network, so we exclude them from the remainder of our analysis, leaving us with four main communities.

Both the internal and the strategic legitimation models predict that these communities are defined along areas of legal doctrine. By contrast, the relativist legitimation model predicts that the communities would be defined based on country characteristics such as legal culture or income. Figures 5 and 6 help clarify the substantive interpretation of these communities by respectively showing the percentage of cases within each community that refer to a specific article and the most common keywords for cases within that community. Community 1 is composed primarily of cases that address the most serious personal integrity rights violations, including government actions or negligence that results in loss of life (Article 2) or inhumane treatment (Article 3). Article 8 (privacy) and 13 (effective remedy) violations are often invoked in conjunction with those violations. Article 6 (right to a free and fair trial) is the most commonly invoked provision in both communities 2 and 3, although community 3 generally includes Article 6-1 cases and not those dealing with other portions of Article 6. The cases in community 2 primarily concern rights of criminal defendants and prisoner rights (e.g., Article 5). By contrast, the cases in community 3 primarily concern civil proceedings, such as Article 6-1 and Article 1 of Protocol 1 (property rights). Finally, community 4 mostly contains cases that address freedom of expression and possible exceptions to that—strikingly, the top 4 keywords in this community all pertain to Article 10 issues. These are civil and political rights issues that do
not directly relate to the functioning of the judicial systems but rather to the limits of government interference into social and political life.

[Figures 5 and 6 about here]

These findings suggest that membership in communities is determined by the legal substance of cases. Of course, because of the correlation between countries of origin and the legal substance of cases, we must perform additional analysis to understand the community structure. Because the Newman algorithm returns the communities with exclusive categorical indicators, we used multinomial logistic regression to estimate a model using similar variables to our analysis of INITIAL HUB SCORES.\textsuperscript{20} Table 2 reports our results. Community 4 is the baseline category.

[Table 2 about here]

In general, the results demonstrate that the legal substance is more important than the origin of the case in terms of determining the community structure, which supports the strategic and internal models. One exception is that cases from countries with French or former-Socialist origins are less likely to be in community 2 than community 4. A plausible explanation for the former is that civil court systems in common law systems tend to be less formalist and more efficient than in systems of other legal origins (Djankov et al. 2003), thus leading to fewer complaints about civil proceedings. Moreover, cases from wealthier states are more likely to be in community 3 relative to the other communities. These findings can perhaps be attributed to the notion that human rights violations in wealthier countries are less likely to be as severe and that community 3 in general contains less severe human rights violations.

Overall, however, the communities in the ECtHR citations are based on areas of legal doctrine. The regression results confirm the analysis above regarding the meanings of these
communities. Cases involving Articles 2, 3 and 5, all of which concern physical integrity rights, tend to be in community 1. While Article 3 and 5 cases are also often in community 2, we know from the keyword analysis above that these tend to be cases where procedural rights were violated, rather than cases where a life was taken unlawfully, as is the case for community 1. Community 3 contains cases addressing various areas of civil proceedings, especially those involving Article 6-1 or Article 1 of Protocol 1. Finally, community 4, as we discussed above, appears to primarily include freedom-of-expression cases (Article 10), which we know based on the negative, significant coefficients on Article 10 in all the other communities.

**Conclusions**

Our analysis strongly supports the argument that ECtHR judges cite precedent at least in part to provide strategic legitimation for their decisions. Judgments on politically sensitive issues are justified more fully with past case law. The same holds for judgments where governments filed objections to the ECtHR’s exercise of its jurisdiction. This is consistent with a view that ECtHR judges believe that domestic legal professionals require more persuasion to push for implementation on judgments that the government is likely to resist. Further support for this thesis comes from the findings that the use of precedent increases when communicating with common law countries, in which legal professionals place particularly high value on justifying decisions with precedent. Moreover, the community analysis shows that ECtHR judges choose their precedent based on the legal issues in a case, not the characteristics of respondent governments. This suggests that it is indeed legal professionals rather than politicians that are the prime target for legal justifications.

Our findings certainly do not imply that citations are not used to enhance internal communication and to improve efficiently. They do, however, imply that this is not the only
usage of citations. Citations also serve the purpose of legitimating decisions to an external audience. This finding is similar to what studies of citation practices on domestic constitutional courts have found. Even domestic judges in well-established democracies do not operate in splendid isolation. In this sense, our findings are consistent with Voeten’s (2008) finding that ECtHR judges are political actors in similar ways as are domestic review judges: they wish to see the law reflect their policy preferences (as do domestic judges) but they do not necessarily use judgments to settle geopolitical scores or otherwise reflect national interests or culture.

The strategic legitimation model builds on both the trustee approach (e.g., Alter 2008), which assumes that judges are mostly guided by legal professional norms, and the principal-agent approach (e.g., Carrubba et al 2008), which assumes that international judges must constantly worry about the willingness of states to implement decisions. The model builds this bridge by relying on another point that is well-established in the international court literature: that international judges look to domestic judges as potential allies (e.g., Weiler 1994). The focus in this paper has purely been on legal justification, an issue that has hitherto mostly been ignored by the political science literature on international courts. Yet, the model does offer potential for an approach that recognizes the distinctiveness of legal reasoning as well as the strategic predicament in which international judges typically find themselves.

This analysis by no means resolves the debate on whether supranational adjudication is becoming comparably effective to domestic adjudication (e.g., Helfer and Slaughter 1997). The ECtHR is among the more advanced international courts, so these conclusions may not apply elsewhere. Moreover, even if ECtHR judges use similar methodologies and techniques as domestic review judges, it may well be that their decisions do not have similar effects. This aspect is beyond the scope of this paper. Finally, we have only investigated whether the inclusion
of case law is consistent across cases, not whether case law principles are applied consistently. Such a study would require more legal interpretation than we are equipped to provide. Yet, the absence of any systematic influence of country-specific factors on the citations of case law on an international court as heterogeneous as the ECtHR is telling about the potential of international law to supersede national divides.

As far as we know, this is the first social-scientific empirical analysis of the use and development of precedent on any international court. There is an increasing recognition among legal scholars and political scientists that the ability of international courts to develop legal norms is important not just because it creates de facto new legal obligations (Helfer 2008) but also because it shapes strategic choices of states, such as decisions where to file disputes (Busch 2007). In order to advance this study, we need a better understanding not just of how courts develop precedent but also how to measure attributes of precedent, such as its relative importance or centrality. In accord with recent developments in the study of domestic courts, we argue that network analysis is the most appropriate tool for providing such measures.

In addition, ours is among the most comprehensive analyses of judicial citation networks. As a result, we have produced both methodological and substantive findings that should be of interest to a range of scholars. First, we have learned that, despite its short history, the changes in citation patterns in the ECtHR are similar to those at the USSC, which suggests the ECtHR develops precedent in a way that parallels certain domestic courts. Second, by comparing the distributions of citations by these two courts, we have found evidence that certain types of judicial citation networks are scale-free, the substantive implication of which is that preferential attachment plays a role in the development of legal precedent. We hope scholars interested in comparative legal institutions will investigate this point in further detail. Third, by conducting
the first analysis of the substantive meanings of case communities within a network of judicial citations, we have provided a framework for scholars interested in doing so with respect to other courts. Finally, by applying the study of judicial citation networks to an international court, we demonstrate the utility of network analysis to study international relations in a manner that goes beyond the applications used in the existing literature (e.g., Dorussen and Ward 2008; Hafner-Burton et al. 2009).

Our analysis opens up several fruitful avenues of future research. First, there are further possibilities to study the development of precedent within the ECtHR, such as how the introduction of Eastern European countries affected the network structure of citations. Second, our study opens up opportunities to study the link between the ECtHR and other courts, including domestic courts within the Council of Europe, other international courts that regularly cite the ECtHR (especially the Inter-American Court of Human Rights), and even U.S. courts, which cite the ECtHR more frequently than any other foreign court in cases where they use foreign decisions to interpret U.S. law (Zaring 2006). Finally, given its uncertain compliance environment, the ECtHR provides an ideal setting for testing whether the thoroughness of legal justification affects compliance with court decisions.
### Table 1: Three Theoretical Perspectives on the ECtHR’s Use of Case Law

<table>
<thead>
<tr>
<th></th>
<th>Internal Consistency</th>
<th>Strategic Legitimation</th>
<th>Relativist Legitimation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose of case law citations</strong></td>
<td>To develop an internally consistent body of precedent.</td>
<td>To persuade domestic parties to implement decisions by demonstrating impartial and careful decision-making.</td>
<td>To persuade domestic parties to implement decisions by demonstrating sensitivity to diversity.</td>
</tr>
</tbody>
</table>

#### Extent of Reliance on Precedent

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Primarily determined by the number of cases on that legal issue.</th>
<th>Primarily determined by the legal issues in the case and generally not by the characteristics of the respondent country.</th>
<th>Primarily determined by the characteristics of the respondent country.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The more cases on a legal issue, the more the court relies on citations precedent (H1)</td>
<td>Physical integrity rights cases rely more on citations precedent (H2)</td>
<td>Cases involving respondent governments from common law countries rely more on citations to precedent (H4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cases in which a violation was found or in which a preliminary objection was made rely more on citations to precedent (H3a+b)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cases involving respondent governments from common law countries rely more on citations to precedent (H4)</td>
<td></td>
</tr>
</tbody>
</table>

#### Communities of Case Law

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Communities of case law are primarily determined by legal substance</th>
<th>Communities of case law are primarily determined by legal substance</th>
<th>Communities of case law are primarily based on legal cultural similarities</th>
</tr>
</thead>
</table>
Figure 1

Aksoy v. Turkey (1996)

Ahmet Ozcan and Others v. Turkey (2004)

Chahal v. United Kingdom (1996)

Balyemez v. Turkey (2005)

Ireland v. United Kingdom (1978)
Figure 2: Distributions of Citations

European Court of Human Rights

United States Supreme Court

Inward Citations

Outward Citations
Figure 3: Average Numbers of Citations

[Graphs showing the average number of citations for the European Court of Human Rights and the United States Supreme Court over time.]
Figure 4
Effect Sizes Based on Tobit Model of Initial Hub Scores

Note: For continuous variables, effect sizes are the percentage changes in the dependent variable of a one-standard-deviation increase in the explanatory variable. For dummy variables, effect sizes are the percentage changes in the dependent variable of an observation of "1" versus an observation of "0". Effect sizes are shown with 95% confidence intervals.
Figure 5: Distribution of Legal Issues by Community

Community 1

Community 2

Community 3

Community 4
### Figure 6: Top Keywords by Community

<table>
<thead>
<tr>
<th>Community 1</th>
<th>Count</th>
<th>% Cases</th>
<th>Community 2</th>
<th>Count</th>
<th>% Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIFE</td>
<td>152</td>
<td>67.26%</td>
<td>FAIR HEARING</td>
<td>180</td>
<td>22.73%</td>
</tr>
<tr>
<td>EFFECTIVE REMEDY</td>
<td>119</td>
<td>52.65%</td>
<td>INHUMAN TREATMENT</td>
<td>124</td>
<td>15.66%</td>
</tr>
<tr>
<td>POSITIVE OBLIGATIONS</td>
<td>74</td>
<td>32.74%</td>
<td>LAWFUL ARREST OR DETENTION</td>
<td>123</td>
<td>15.53%</td>
</tr>
<tr>
<td>INHUMAN TREATMENT</td>
<td>69</td>
<td>30.53%</td>
<td>DEGRADING TREATMENT</td>
<td>103</td>
<td>13.01%</td>
</tr>
<tr>
<td>EXHAUSTION OF DOMESTIC REMEDIES</td>
<td>41</td>
<td>18.14%</td>
<td>EXHAUSTION OF DOMESTIC REMEDIES</td>
<td>100</td>
<td>12.63%</td>
</tr>
<tr>
<td>RESPECT FOR FAMILY LIFE</td>
<td>39</td>
<td>17.26%</td>
<td>REASONABLE TIME</td>
<td>97</td>
<td>12.25%</td>
</tr>
<tr>
<td>DISCRIMINATION</td>
<td>33</td>
<td>14.60%</td>
<td>EFFECTIVE REMEDY</td>
<td>90</td>
<td>11.36%</td>
</tr>
<tr>
<td>INTERFERENCE-ART 8</td>
<td>29</td>
<td>12.83%</td>
<td>LENGTH OF PRE-TRIAL DETENTION</td>
<td>76</td>
<td>9.60%</td>
</tr>
<tr>
<td>NECESSARY IN A DEMOCRATIC SOCIETY-ART 8</td>
<td>28</td>
<td>12.39%</td>
<td>LEGAL ASSISTANCE</td>
<td>70</td>
<td>8.84%</td>
</tr>
<tr>
<td>DEGRADING TREATMENT</td>
<td>26</td>
<td>11.50%</td>
<td>IMPARTIAL TRIBUNAL</td>
<td>69</td>
<td>8.71%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Community 3</th>
<th>Count</th>
<th>% Cases</th>
<th>Community 4</th>
<th>Count</th>
<th>% Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIVIL PROCEEDINGS</td>
<td>290</td>
<td>33.72%</td>
<td>FREEDOM OF EXPRESSION</td>
<td>166</td>
<td>53.04%</td>
</tr>
<tr>
<td>ACCESS TO COURT</td>
<td>230</td>
<td>26.74%</td>
<td>NECESSARY IN A DEMOCRATIC SOCIETY-ART 10</td>
<td>130</td>
<td>41.53%</td>
</tr>
<tr>
<td>POSSESSIONS</td>
<td>186</td>
<td>21.63%</td>
<td>INTERFERENCE-ART 10</td>
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<td>40.26%</td>
</tr>
<tr>
<td>REASONABLE TIME</td>
<td>181</td>
<td>21.05%</td>
<td>PROTECTION OF THE RIGHTS OF OTHERS-ART 10</td>
<td>57</td>
<td>18.21%</td>
</tr>
<tr>
<td>FAIR HEARING</td>
<td>170</td>
<td>19.77%</td>
<td>MARGIN OF APPRECIATION</td>
<td>44</td>
<td>14.06%</td>
</tr>
<tr>
<td>PEACEFUL ENJOYMENT OF POSSESSIONS</td>
<td>155</td>
<td>18.02%</td>
<td>INTERFERENCE-ART 8</td>
<td>43</td>
<td>13.74%</td>
</tr>
<tr>
<td>CIVIL RIGHTS AND OBLIGATIONS</td>
<td>164</td>
<td>16.74%</td>
<td>LIFE</td>
<td>40</td>
<td>12.78%</td>
</tr>
<tr>
<td>LIFE</td>
<td>136</td>
<td>15.81%</td>
<td>PRESCRIBED BY LAW-ART 8</td>
<td>38</td>
<td>12.14%</td>
</tr>
<tr>
<td>EFFECTIVE REMEDY</td>
<td>110</td>
<td>12.79%</td>
<td>RESPECT FOR PRIVATE LIFE</td>
<td>37</td>
<td>11.82%</td>
</tr>
<tr>
<td>EXHAUSTION OF DOMESTIC REMEDIES</td>
<td>109</td>
<td>12.67%</td>
<td>EFFECTIVE REMEDY</td>
<td>35</td>
<td>11.18%</td>
</tr>
</tbody>
</table>
### Table 2: Multinomial Logit Model of ECtHR Network Communities

<table>
<thead>
<tr>
<th>Variable</th>
<th>Community 1</th>
<th>Community 2</th>
<th>Community 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal Origin: France</td>
<td>0.141</td>
<td>-1.605***</td>
<td>-0.621</td>
</tr>
<tr>
<td></td>
<td>(0.499)</td>
<td>(0.415)</td>
<td>(0.382)</td>
</tr>
<tr>
<td>Legal Origin: Scandinavia</td>
<td>0.0520</td>
<td>-1.060</td>
<td>-0.215</td>
</tr>
<tr>
<td></td>
<td>(0.722)</td>
<td>(0.586)</td>
<td>(0.551)</td>
</tr>
<tr>
<td>Legal Origin: Socialist</td>
<td>-0.539</td>
<td>-1.492***</td>
<td>0.427</td>
</tr>
<tr>
<td></td>
<td>(0.606)</td>
<td>(0.484)</td>
<td>(0.456)</td>
</tr>
<tr>
<td>Legal Origin: Germany</td>
<td>0.431</td>
<td>-0.443</td>
<td>-0.520</td>
</tr>
<tr>
<td></td>
<td>(0.614)</td>
<td>(0.481)</td>
<td>(0.458)</td>
</tr>
<tr>
<td>Log Per Capita GDP</td>
<td>-0.0202</td>
<td>0.191</td>
<td>0.826***</td>
</tr>
<tr>
<td></td>
<td>(0.230)</td>
<td>(0.190)</td>
<td>(0.187)</td>
</tr>
<tr>
<td>Article 2</td>
<td>5.971***</td>
<td>2.025</td>
<td>2.097</td>
</tr>
<tr>
<td></td>
<td>(1.731)</td>
<td>(1.760)</td>
<td>(1.741)</td>
</tr>
<tr>
<td>Article 3</td>
<td>2.254***</td>
<td>2.920***</td>
<td>0.409</td>
</tr>
<tr>
<td></td>
<td>(0.572)</td>
<td>(0.542)</td>
<td>(0.567)</td>
</tr>
<tr>
<td>Article 5</td>
<td>2.347***</td>
<td>4.681***</td>
<td>-0.216</td>
</tr>
<tr>
<td></td>
<td>(0.799)</td>
<td>(0.774)</td>
<td>(0.917)</td>
</tr>
<tr>
<td>Article 6</td>
<td>0.166</td>
<td>2.061***</td>
<td>-0.317</td>
</tr>
<tr>
<td></td>
<td>(0.428)</td>
<td>(0.310)</td>
<td>(0.330)</td>
</tr>
<tr>
<td>Article 6-1</td>
<td>0.150</td>
<td>2.088***</td>
<td>2.392***</td>
</tr>
<tr>
<td></td>
<td>(0.343)</td>
<td>(0.235)</td>
<td>(0.228)</td>
</tr>
<tr>
<td>Article 8</td>
<td>0.772**</td>
<td>-1.127***</td>
<td>0.108</td>
</tr>
<tr>
<td></td>
<td>(0.337)</td>
<td>(0.301)</td>
<td>(0.262)</td>
</tr>
<tr>
<td>Article 10</td>
<td>-4.404***</td>
<td>-4.459***</td>
<td>-3.898***</td>
</tr>
<tr>
<td></td>
<td>(0.753)</td>
<td>(0.405)</td>
<td>(0.316)</td>
</tr>
<tr>
<td>Article 13</td>
<td>0.211</td>
<td>-0.768**</td>
<td>-0.336</td>
</tr>
<tr>
<td></td>
<td>(0.394)</td>
<td>(0.368)</td>
<td>(0.330)</td>
</tr>
<tr>
<td>Article 14</td>
<td>-0.0331</td>
<td>-1.300***</td>
<td>0.499</td>
</tr>
<tr>
<td></td>
<td>(0.367)</td>
<td>(0.421)</td>
<td>(0.319)</td>
</tr>
<tr>
<td>Prot. 1 Article 1</td>
<td>-0.440</td>
<td>-1.681***</td>
<td>1.097***</td>
</tr>
<tr>
<td></td>
<td>(0.438)</td>
<td>(0.461)</td>
<td>(0.271)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.903</td>
<td>-0.263</td>
<td>-7.136***</td>
</tr>
<tr>
<td></td>
<td>(2.227)</td>
<td>(1.881)</td>
<td>(1.893)</td>
</tr>
<tr>
<td>Observations</td>
<td>2168</td>
<td>2168</td>
<td>2168</td>
</tr>
</tbody>
</table>

Robust standard errors are listed below the coefficients, in parentheses.

*** $p<0.01$, ** $p<0.05$
Works cited:


47. Shahabuddeen, Mohammed, *Precedent in the World Court* (Cambridge University Press, 2007)


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1 The 27 EU members and Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Croatia, Georgia, Iceland, Liechtenstein, Moldova, Monaco, Montenegro, Norway, Russia, San Marino, Serbia, Switzerland, the former Yugoslav Republic of Macedonia, Turkey, and Ukraine.

2 Although Article 38 allows judiciary decisions to be a “subsidiary means.”

3 13 August 1981, Young, James and Webster vs. UK,

4 Most ECtHR judgments on the merit are reached by seven-judge panels. Some cases are referred to the seventeen-judge Grand Chamber.

5 *Supervision of the Execution of Judgments of the European Court of Human Rights*, 3rd annual report, p.51.

6 Ibid p. 63. A final resolution is adopted by the Committee of Ministers when it is satisfied that a government has implemented an ECtHR judgment.

7 P. 7.

8 An exception may be citations to case law from outside the Council of Europe, which may be used by politicians to delegitimize judgments (Voeten 2010).


10 This figure includes only judgments on the merits.

11 Approximately 15.6% of the ECtHR decisions are outside the main cluster (compared with 16.2% in the USSC’s network). Almost all decisions outside the main cluster are also solitons, which are neither cited by nor cite any other decisions.

12 The excluded issues are those designated importance level 3 by the Court.

13 This article is only invoked in conjunction with other Convention rights, limiting its application since the Convention includes no socio-economic rights other than education. The optional protocol 12 remedies this but is ratified by less than half of Council of Europe member states.
For USSC citations, we use the data provided by Fowler and Jeon (2008).

Network theorists argue that this distribution results from a process known as "preferential attachment," (Barabási and Albert 1999) which in this context suggests that the more often a case has been cited in this past, the higher the probability that it will be cited in new cases. Using the methodology developed by Clauset et al. (2007), we estimated that outward citations by the ECtHR closely follow a power law beginning at 9 citations per case, whereas USSC outward citations do so beginning at 30. The ECtHR distribution of inward citations closely follows a power law beginning at 36 citations per case, whereas USSC inward citations do so beginning at 22.

The Protocol went into force on 1 November 1998.

The Grand Chamber of seventeen judges takes cases it deems important directly and also reviews some decisions by the regular seven-judge Chambers, usually at the request of respondent governments.

We estimated this model using robust standard errors clustered on the respondent country.

Because this type of algorithm can be sensitive to implementation details, we note that we used the software package igraph, version 0.54 (Csardi and Nepusz 2006), in the R programming language.

Here, we do not include controls for the year in which a decision was issued nor for the number of cases from a country because we have no reason to believe these affect the community structure.