

# Judicial Independence in an African State

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## Abstract

Judicial independence, that is, the ability for a court to decide cases free from political influence, is an important tenet of democratic governance. This topic, however, is understudied in the African context. Drawing on 540 Supreme Court of Ghana opinions issued between 1960–2005, which span authoritarian and democratic regimes, I apply methods of automated-text analysis to characterize cases covering Court jurisdiction, property, criminal and civil law. I find evidence that post-1992 Court cases on jurisdiction and civil law exhibit greater adherence to the Constitution of Ghana, plausibly indicating independence from external forces.

## I. Introduction

In 1978, Isaac Kobina Abban nearly died in a car accident involving his vehicle and a military transport.<sup>1</sup> Security forces had pursued Abban for several days, charging him with treason against the State of Ghana, crimes that carried the penalty of death. General Ignatius Akyeampong ruled this authoritarian state, and he dispatched his political enemies with abandon. Promising to return Ghana to democratic rule, Akyeampong improved economic growth in Ghana for three years, until the global oil crisis devastated Ghana's economy. In

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<sup>1</sup>“Justice Abban Was on Acheampong's Death List.” <http://www.modernghana.com/news/46057/1/justice-abban-was-on-acheampongs-death-list.html>. 16 December 2003.

1978, Akyeampong’s military council held a referendum to determine whether to continue government as a partnership between the military, police and people—the council’s preferred option—or to transition immediately to democracy. A High Court of Accra justice was appointed Electoral Commissioner with final responsibility over this referendum. As the referendum took place, the Council realized that it would lose, and Akyeampong summoned his Commissioner to explain himself. This Commissioner was Justice Isaac Kobina Abban.<sup>2</sup>

Through cunning, Justice Abban survived. In November 1979, a young Scottish–Ghanaian Flight Lieutenant named Jerry John Rawlings, leading a group of junior air officers, escaped from an Accra prison in which they had been detained by Akyeampong’s security forces. Though technically a crime, Justice Abban did not prosecute Rawlings and his fellow officers—perhaps a strategic maneuver. These officers overthrew the Akyeampong regime. In 1981, Rawlings, now head of state of Ghana, elevated Justice Abban to the Court of Appeal. In 1995, under a democratic regime, Rawlings promoted Justice Abban to the position of Chief Justice of the Supreme Court.

It is not difficult to see why Abban could be viewed as a Rawlings puppet; after all, Rawlings owed his survival to Abban. Given Ghana’s political history and periods of military dictatorship, establishing a measure of judicial independence is a difficult task. Numerous authors uphold judicial independence as a necessary condition for democratic deepening and the safeguarding of rights. North & Weingast [1989] delineate the establishment of such judicial norms as justices serving subject to good behavior, instead of at the sovereign’s whim, a practice that enforced private rights in post-Glorious Revolution England.<sup>3</sup> In developing countries, judicial independence can seem impossible to achieve. Memories of previous threats and atrocities, as well as current corruption and intimidation, can easily derail the due process of law.

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<sup>2</sup>Prempeh, H. Kwasi. 1997. *Toward Judicial Independence and Accountability in an Emerging Democracy: The Courts and the Consolidation of Democracy in Ghana*. (Accra, Ghana: Institute of Economic Affairs). p. 51-53.

<sup>3</sup>North, Douglass and Barry Weingast. 1989. “Constitutions and Commitment: The Evolution of Institutional Governing Public Choice in Seventeenth-Century England.” *The Journal of Economic History*. Vol. 49(4). p. 816.

But even if the importance of judicial independence in developing countries is recognized, how do we measure it? In this paper, I use automated content analysis of judicial opinions to analyze the development of judicial independence. As detailed below, other authors have pursued different methods to grasp judicial independence: regression analysis, citation analysis, Bayesian ideal-point estimation, to name a few. I contend that automated content analysis provides reasonable description of a large, text-based data set, a data set that should be usefully combined with more traditional data, such as judicial background, legislator ideal points and party vote shares.

Section II explains the relevant theoretical and methodological literature, while Section III describes the Ghanaian case. Section IV overviews the textual data that I assembled, and Section V outlines the methods I use that disassemble that data. Section VI analyzes. Section VII discusses, and outlines an equilibrium that would allow judicial independence. Section VIII concludes.

## **II. Relevant Literature**

### **A. On Judicial Independence**

Landes & Posner [1975] argue that an independent judiciary is essential to an interest-group theory of politics. According to them, Interest groups maintain an independent judiciary to enforce bargains between groups and to ensure that legislation does not deviate from its original intention. The authors grant that the executive and legislature can constrain the judiciary, but they do not firmly establish why the judiciary would enforce laws according to the enacting legislature's intent rather than according to the current legislature's intent. If guaranteed lifetime tenure on the bench, a justice might deviate to suit her personal purposes.

Stephenson [2003] rejects the Landes & Posner [1975] assumption of the Court enforcing

the enacting legislature’s wishes, but develops his own interest–group argument.<sup>4</sup> Employing a formal model, Stephenson [2003] asserts that an independent judiciary can hold in political equilibrium under the following conditions:

- The political system is sufficiently competitive.
- The judiciary is moderate.
- The political competitors themselves are sufficiently risk averse and concerned about future payoffs.

While Landes & Posner [1975] focus on interest groups, Stephenson [2003] accentuates political parties: in a competitive system—one where parties alternate between government and opposition—judicial independence will exist if both parties find their expected utilities of governing with judicial independence to be higher than without judicial independence. Being risk averse and forward looking, parties find it in their interest to maintain a fair playing field, rather than exerting the cost of breaking the rules. Similarly, a judiciary must be moderate, or at least one party will agitate for not having judicial independence. In the nineteenth–century United States and many contemporary developing countries, this agitation takes the form of violence. Stephenson [2003] investigates his claims empirically, and affirms his formal predictions; however, these empirics lack causal conviction. Relying on an ordered–probit specification, he finds that political competition and democratic stability<sup>5</sup> are positively associated with judicial independence.<sup>6</sup>

Employing an ethnographic approach, Widner [1999] addresses judicial independence within the context of common–law Africa.<sup>7</sup> Widner [1999] interviewed 130 lawyers, judges and magistrates from Tanzania, Uganda, Botswana and Kenya, all of whom were members

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<sup>4</sup>Stephenson, Matthew. 2003. “When the Devil Turns ...”: The Political Foundations of Independent Judicial Review.” *Journal of Legal Studies*. Vol. 32(1).

<sup>5</sup>Measured, respectively, by the World Bank’s Database on Political Institutions and the Polity IV dataset.

<sup>6</sup>The dependent variable is generated from a measure of judicial subservience to the executive in the US Department of States *Human Rights Country Reports*.

<sup>7</sup>Widner, Jennifer. 1999. “Building Judicial Independence in Common Law Africa.” In *The Self-Restraining State: Power and Accountability in New Democracies*. Ed: Schedler, Andreas; Larry Diamond; and Marc Plattner. (Boulder, CO: Lynne Rienner).

of the bar associations of their respective countries. Empirically, Widner [1999] finds that 3.2 percent of lawyers in Botswana, 73.9 percent in Tanzania and 78.9 percent in Uganda believe their judiciaries to be more independent than ten years prior. Of course, these numbers could indicate that Botswana has historically had a more independent judiciary, whereas Tanzania and certainly Uganda were starting from lower baselines. From a theoretical standpoint, Widner’s [1999] interviewees suggest that judicial independence starts as a bargain between the justices and the executive—namely, the executive is concerned with his legacy. Further, senior justices aim to build constituencies with the junior justices<sup>8</sup> and local media, the latter to ensure the public favors an independent judiciary.

## B. Related Judicial Measures

My approach centers on the text of Supreme Court of Ghana opinions. Other scholars have examined judicial independence through various methods. Landes & Posner [1976] examine legal citations to determine the establishment of “legal precedent,” that is, whether a case sets an example which future court opinions emulate.<sup>9</sup> <sup>10</sup> From a theoretical perspective, Landes & Posner [1976] envision a stock of legal capital that exists within a given area of the law, a stock that, like physical capital, depreciates over time. For justices, it makes sense to respect precedent: doing so lowers the input costs of drafting opinions, and, at the same time, raises the value of one’s own opinions by encouraging others to respect precedents which one has set. Empirically, Landes & Posner [1976] find that Supreme Court precedents depreciate more slowly than those of the lower courts and that areas of the law with higher statutory change experience higher depreciation of precedents. Measuring the stickiness of precedence would form another avenue of establishing judicial independence in a developing country, particularly as a Court continues in existence for longer periods of time.

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<sup>8</sup>That is, the justices who sit on district-level and appellate benches.

<sup>9</sup>Note that despite the same authors, this paper is different from Landes & Posner [1975] above. Landes, William and Richard Posner. 1976. “Legal Precedent: A Theoretical and Empirical Analysis.” *Journal of Law and Economics*. Vol. 249.

<sup>10</sup>Legally, I am referring to the notion of *stare decisis*.

A related literature focuses on establishing the influence of particular justices, a subject that might be especially pertinent in developing countries, where the legislature would have less ability to oversee judicial appointments and where justices are potentially more corruptible. Landes, Lessig & Solimine [1998] estimate the influence of US Courts of Appeals justices by measuring total number of citations to a justice’s opinions by other justices as well as the average number of citations one receives per published opinion.<sup>11</sup> Kosma [1998] performs a similar analysis but on US Supreme Court justices, while also measuring the value of each justice’s appointment to the Court as well as their most influential opinions.<sup>12</sup> Adler [1985] develops a theoretical model of “stardom” based on an environment in which consumption requires knowledge (e.g., art appreciation). Consumption of goods requiring knowledge implies that consumers will seek each other to consume together, which could result in a “star” being locked in, despite having average talent.<sup>13</sup> In the judicial field, it is possible that certain justices’ opinions are cited more frequently simply because they have become famous—these newer opinions may not necessarily reflect the most cutting-edge legal analysis. Such a phenomenon is compounded by the fact that many American justices delegate the task of opinion-writing to law clerks.<sup>14</sup>

Martin & Quinn [2002] utilize Markov chain Monte Carlo methods to estimate a Bayesian measurement model of US Supreme Court justices’ ideal points.<sup>15</sup> Their framework is an item-response model that examines the voting patterns of Supreme Court justices to determine if a justice’s ideological positions shift over time. The dynamic movement of justices’ ideal points fits nicely into a principal-agent framework, especially in developing countries: given that an authoritarian or newly democratic leader might expect a newly appointed

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<sup>11</sup>Landes, William; Lawrence Lessig; and Michael Solimine. 1998. “Judicial Influence: A Citation Analysis of Federal Courts of Appeals Judges.” *The Journal of Legal Studies*. Vol. 27(2).

<sup>12</sup>Kosma, Montgomery. 1998. “Measuring the Influence of Supreme Court Justices.” *The Journal of Legal Studies*. Vol. 27(2).

<sup>13</sup>Adler, Moshe. 1985. “Stardom and Talent.” *The American Economic Review*. Vol. 75(1).

<sup>14</sup>For a discussion of this issue, see: Posner, Richard. 1999. “The Theory and Practice of Citations Analysis, with Special Reference to Law and Economics.” University of Chicago, John M. Olin Law & Economics Working Paper No. 83.

<sup>15</sup>Martin, Andrew & Kevin Quinn. 2002. “Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953-1999.” *Political Analysis*. Vol. 10(2).

justice to adhere to a political position, judicial independence could be measured by the degree to which a justice is allowed to shift ideal points over time, given new cases and circumstances.

### III. The Ghanaian Context

On March 6, 1957, Ghana declared its independence from the United Kingdom, with Kwame Nkrumah as its first president. By 1960, Nkrumah had replaced Ghana’s Independence Constitution of 1957 with a new constitution, which personally named him as the “First President” of Ghana [Prempeh 1997: 29]. In one of its earliest decisions, *Re: Akoto and 7 Others*, the Supreme Court of Ghana had to determine whether it was constitutional for the executive to detain persons without trial.<sup>16</sup> In its opinion, the Court declared that the Constitution’s articles on human rights and *habeas corpus* did not impose on the President legal obligations, but rather only moral obligations—which could not be challenged in a court of law. Effectively, the Supreme Court of Ghana set a precedent surrendering its ability to restrain the President [Prempeh 1997: 30].

In 1966, Nkrumah was overthrown by a military coup, and the Supreme Court was suspended until 1969. Under the 1969 constitution and a new, nominally democratic regime, the Supreme Court was reestablished, and, for the first time, given the power of judicial review.<sup>17</sup> However, in 1972, this democratic regime was overthrown, and replaced by the military dictatorship of then-Colonel Ignatius Akyeampong; the Supreme Court was abolished, and did not reconvene until the next military *coup d’état* in 1979.<sup>18</sup>

As noted above, in 1979 Akyeampong was ousted, executed and then replaced by Jerry John Rawlings. In the 1979 Constitution, the Supreme Court was again reestablished and given judicial-review powers. However, the military tribunals of the Akyeampong era were

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<sup>16</sup>See *Re: Akoto and 7 Others*, GLR 523, 1961.

<sup>17</sup>That is, the ability to examine whether executive or legislative actions are constitutional.

<sup>18</sup>Nominally, however, the Supreme Court’s power was vested in the Court of Appeals. As I reiterate below, I do not include the opinions from the Court of Appeal in my analysis, but will do so in future iterations of this project.

recycled during the Rawlings regime and continued to carry out a system of justice parallel to that of the formal judiciary [Prempeh 1997: 43]. Nonetheless, from 1979–1992, the Supreme Court was able to carry out its duties.

Facing increasing pressure from outside donors, Rawlings agreed to transition to democratic rule and a new Constitution. Chapter 11 of the 1992 Constitution delineates the Supreme Court’s function within a separation-of-powers framework, and affirms its right to judicial review.<sup>19</sup> <sup>20</sup> In terms of structure, the Supreme Court consists of a Chief Justice and “not less than nine other Justices of the Supreme Court” [Constitution, §128].<sup>21</sup> The authors above noted in their works that Chief Justices present a slight methodological problem in that they may assign themselves the more important cases; this issue still exists in Ghana, but there is an added twist: Supreme Court cases in Ghana are not necessarily heard by the full bench<sup>22</sup>, but rather the Chief Justice will assign members of her Court to hear particular cases. This is substantial power, and requires further investigation to examine judicial independence. Does a Chief Justice assign only members of particular ideologies to politically salient cases? Such questions as these justify the public outcry described above concerning Justice Abban when he was elevated to Chief Justice in 1995.

Prempeh [1997: 46] observes that the Ghanaian judiciary survived remarkably intact, despite the intervention of numerous military dictatorships. As that author notes, it is quite ironic that as these military regimes created their own parallel system of tribunals, Supreme Court justices could avoid the awkward situation of legally condoning the arbitrary laws and judicial decisions of the military governments. On the other hand, the formal courts were relatively marginalized and justices, in constant danger.

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<sup>19</sup>In addition to the overturning of laws, it is also more difficult for Parliament to simply circumvent with new statutes.

<sup>20</sup>Constitution of Ghana. 1992. <http://www.ghanareview.com/Gconst.html>.

<sup>21</sup>As many other authors have noted, the provision of “not less than nine” can create skewed incentives for the executive, namely, an incentive towards court packing. This could plausibly reduce a Court’s independence. Currently, there are fourteen justices. The fact that court packing has not occurred is noteworthy, and may inform the arguments of Stephenson [2003] and Landes & Posner [1975] about interest-group incentives. This is an area for further research.

<sup>22</sup>In legal terminology, *en banc*.



## IV. Data

My text–data corpus consists of 540 Ghana Supreme Court opinions from 1960 to 2005. These opinions were downloaded manually from *Lexis–Nexis South Africa*.<sup>23</sup> As noted above, my data corpus does not include the opinions of the Court of Appeal from 1972–79, when it replaced the Supreme Court. However, I do possess those opinions in the overall corpus from *Lexis–Nexis*, as well as other Court of Appeal time frames and the opinions of the regional High Courts, for a total of 3,495 opinions.

After downloading the 3,495 opinions, I extracted by hand the 540 Supreme Court opinions, and then allocated them manually into four topic areas: property law, criminal law, civil law and jurisdiction.<sup>24</sup> <sup>25</sup> No case appears under more than one topic area under my specification, though naturally cases bridge these areas in real life.<sup>26</sup> Property law arguably falls under civil proceedings, but in Ghana there is great tension between traditional chieftaincy authorities, who under post-independence agreements continue to control land transactions and with private and public interests that require the land for economic expansion.<sup>27</sup> There are many land cases, and these are often points of political and economic attention, so I allocated them their own heading. To allocate cases to their respective headings I manually skimmed the headnotes of each of the 540 cases, and determined whether they belonged under particular headings. Some cases, such as *Re: Akoto and 7 Others* are well known in the Ghanaian legal literature, and so I utilized other references at my disposal

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<sup>23</sup>I cannot confirm whether these opinions comprise the universe of all Ghana Supreme Court opinions: some opinions are not published, or may be published in different sources. These 540, however, consist of all the opinions published in the *Ghana Law Reports*, Ghana’s premier reference for cases, and held electronically by *Lexis–Nexis South Africa*. These electronic opinions are also matched in physical form at the Harvard Law Library.

<sup>24</sup>I will use “case” and “opinion” interchangeably. Further, these opinions also include concurring and dissenting opinions.

<sup>25</sup>Ironically, there is another advantage to looking directly at opinions in the Ghanaian context. Unlike their American counterparts, Ghanaian justices have very few resources at their disposal, and so often look up citations themselves and write their own opinions, rather than delegating these tasks to clerks. I believe this provides a more accurate representation of a given justice’s incentives and nuances.

<sup>26</sup>In future iterations, I can design a text algorithm that assigns propensity scores to each case, based on how the text weights towards given areas of the law.

<sup>27</sup>In fact, many land cases are decided outside the formal courts in chieftaincy-specific courts. This data does not exist online.

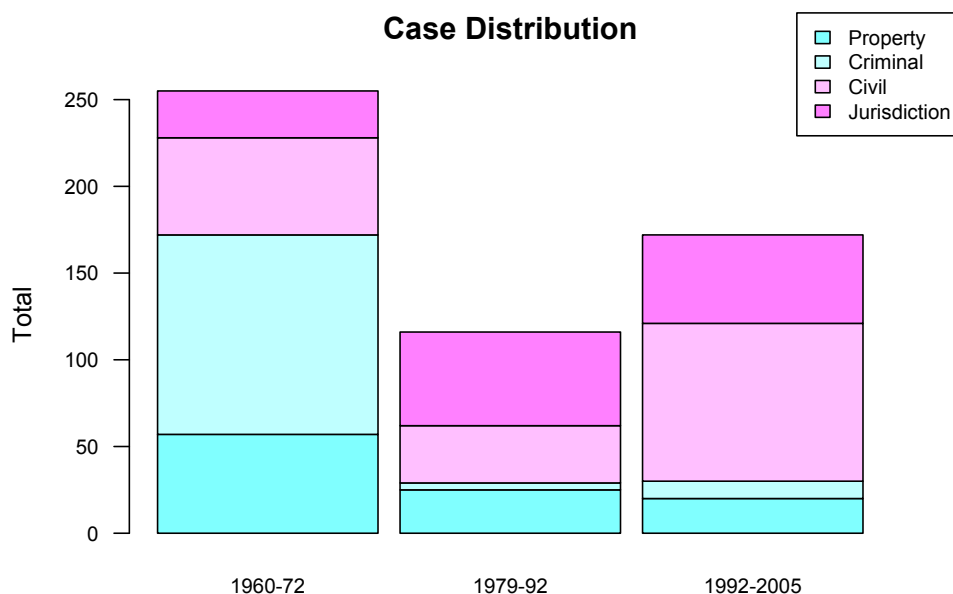


Figure 1: *Distribution of Ghanaian Supreme Court cases across three time periods and by topical area.*

to double-check select important cases.<sup>28</sup> Overall, I categorized 100 cases under property law, 129 cases under criminal law, 180 cases under civil law and 131 cases under jurisdiction.

Subsequent to allocating cases by topical heading, I also divided cases according to three distinct time periods: 1960-72, the first democratic governments<sup>29</sup>; 1979-92, the first Rawlings regime; and 1993-2005, the new democratic regime. Figure 1 depicts the distribution of cases across time and space.

Each time period is roughly 12 years, though the first time period is missing three years due to a dictatorship. Visually, we can see that the plurality of cases were adjudicated in the earliest time period, within criminal cases comprising most of the opinions then. This makes sense given that the Supreme Court of Ghana did not receive the power of judicial review—and hence, the constitutional cases that would bolster its civil and jurisdictional numbers

<sup>28</sup>See References section below for complete list of Ghanaian legal sources.

<sup>29</sup>Though, as noted above, 1966-69 was a military regime that suspended the Supreme Court.

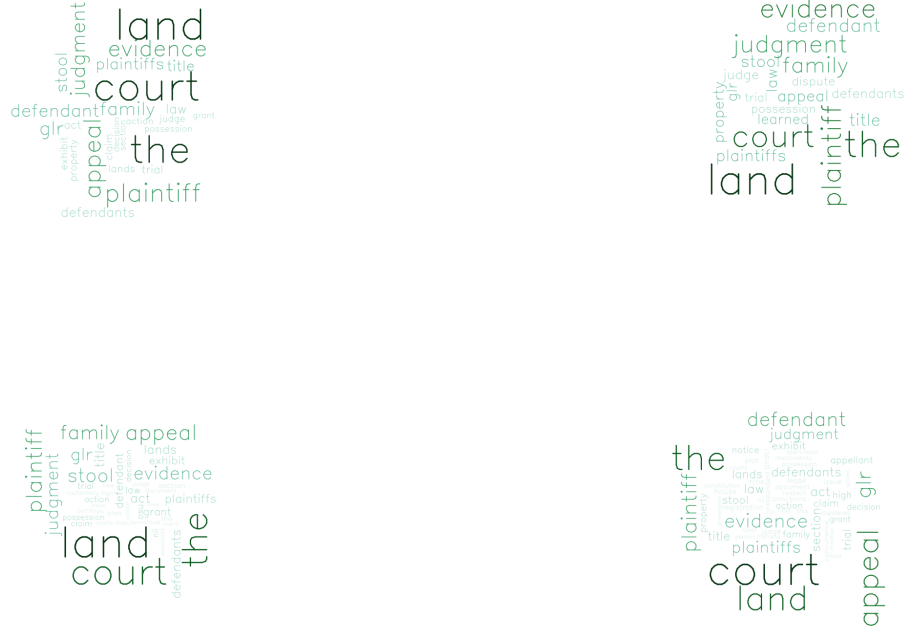


Figure 2: *Property wordclouds. Larger fonts indicate higher frequency. Top-left: all property cases. Top-right: 1960-72. Bottom-left: 1979-92. Bottom-right: 1993-2005.*

in my setup—until 1969. The period 1979-92 contains the fewest overall cases, plausibly as a result of the parallel tribunals set up by Rawlings. In this time period, jurisdiction cases predominate, perhaps as an effort by the Supreme Court to assert its authority after seven years of dormancy. Notably, criminal cases trend from being the most prevalent in the first time period to a mere sliver, possibly a result of criminal cases being funneled to military tribunals.<sup>30</sup> In the final time period, jurisdiction cases still form a sizable proportion of the docket, but civil cases now predominate. Within the civil cases are cases on constitutional law, but private contracts cases also start to increase. This phenomenon may result from increased focus on the Constitution as well as a Supreme Court eager to solidify its influence and define its jurisdiction.

Figure 2 presents “wordcloud” visuals of the property–law cases in my data corpus. As

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<sup>30</sup>Or as a result of the imposition of martial law, which tended to prevent due process.



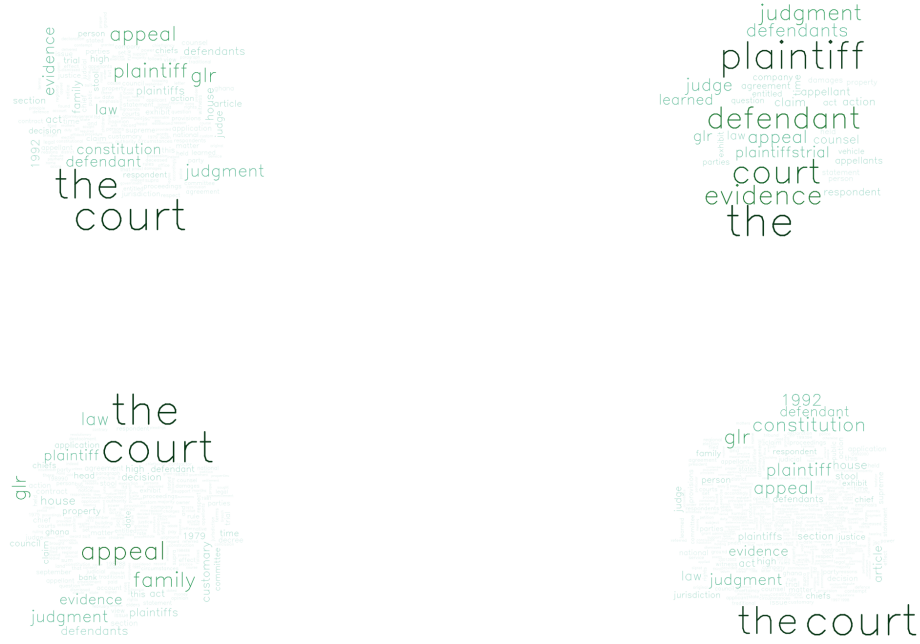


Figure 4: *Civil wordclouds. Larger fonts indicate higher frequency. Top-left: all civil cases. Top-right: 1960-72. Bottom-left: 1979-92. Bottom-right: 1993-2005.*

## V. Methodology

Spirling’s [2012] analysis of US treaty-making with Native Americans provides a methodological parallel for this study.<sup>31</sup> In my study, I utilize kernel principal-components analysis to approximate important term frequencies through local-weighted and global-weighted functions within latent-semantic analysis.<sup>3233</sup>

Through the `tm` package I first pre-process my text-data corpus. Such pre-processing involves removing punctuation, and certain English-language stop words, such as “and” and “of”. Unlike Mosteller & Wallace [1963] I am not interested in the stylistic conventions

<sup>31</sup>Spirling, Arthur. 2012. “US Treaty-Making with American Indians: Institutional Change and Relative Power, 1784–1911.” *American Journal of Political Science*. Vol. 56(1).

<sup>32</sup>For kernel principal-components, I refer to, in addition to Spirling [2012]: Karatzoglou, Alexandros; Alex Smola; and Kurt Hornik. 2011. “Package ‘kernlab’”. *R-CRAN Repository*.

<sup>33</sup>Feinerer, Ingo; Hornik, Kurt; and David Meyer. 2008. “Text Mining Infrastructure in R.” *Journal of Statistical Software*. Vol. 25(5).

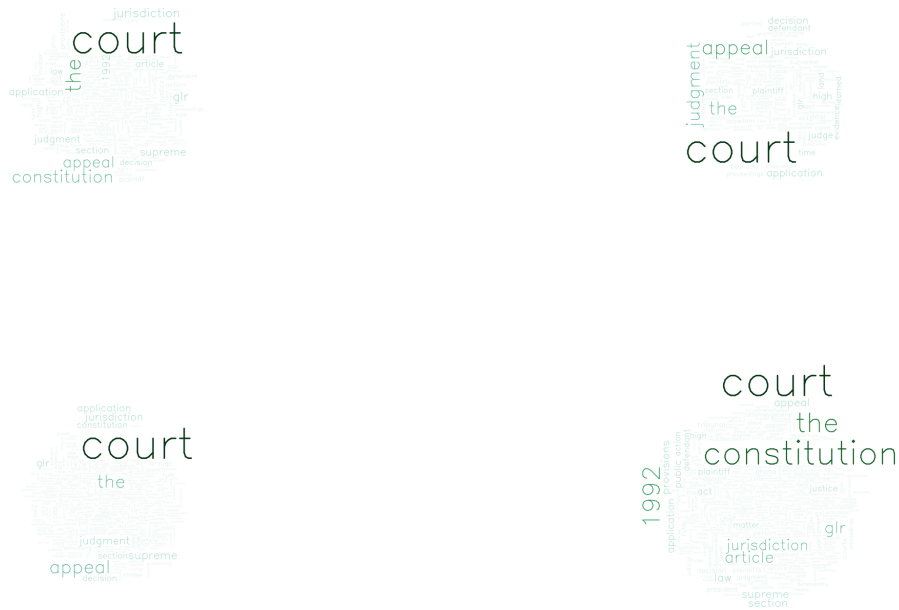


Figure 5: *Jurisdiction wordclouds. Larger fonts indicate higher frequency. Top-left: all jurisdiction cases. Top-right: 1960-72. Bottom-left: 1979-92. Bottom-right: 1993-2005.*

of various justices to identify authorship, though a future study might determine stylistic parallels to measure how important an effect law-school social networks might be for justices in developing countries.<sup>34</sup> Pre-processing creates a term-document matrix, which records how often a particular term appears in a given document.

With this term-document matrix, I apply principal-components analysis. Principal-components analysis assumes that a data set has underlying dimensions that explain variation in the values of the observations: for example, a distribution of standardized-test scores might have much of its variation explained by one or two key explanatory variables, say, parents' educational levels and classroom student-teacher ratio. Through principal-components analysis, we can identify *how many* underlying dimensions are salient, but it is more difficult to tell what those dimensions represent.

<sup>34</sup>Mosteller, Frederick and David Wallace. 1963. "Inference in an Authorship Problem" *Journal of the American Statistical Association*. Vol. 58(302).

As Spiraling [2012] notes, relying solely on term–document matrices is uncertain in that we lose information on word orders (i.e., context). String–kernel principal–components analysis provides a method to resolve this problem. Rather than focusing solely on word frequencies, kernel–principal components analysis hones in on sequences of letters that may span across words. In my analysis, I focus on letter sequences of exactly length five; doing so is computationally more efficient. String–kernel analysis allows me to differentiate between documents that contain phrases such as, “supervisory jurisdiction”, which would refer to constitutional matters, and “jurisdiction supervision”, which might refer to the police and criminal law.

To extract the important terms from these cases, I apply latent–semantic analysis. Latent–semantic analysis provides a way to represent the “meaning” of words by applying local– and global–weighted functions to each term across all documents; after doing so, singular–value decomposition is applied to the now–weighted term–document matrix, creating a new matrix from which one can derive important terms. The local– and global–weighting functions are as follows:

$$\begin{aligned} Local &= \log (tf_{ij} + 1) \\ Global &= 1 + \sum_j \frac{p_{ij} \log p_{ij}}{\log n}, \forall p_{ij} = \frac{tf_{ij}}{gf_i} \end{aligned}$$

Where  $tf_{ij}$  refers to the frequency of term  $i$  within document  $j$ , and  $gf_i$  refers to the frequency of term  $i$  over all documents.

## VI. Results

Figure 6 displays a graphical representation of the principal–components analysis run on all cases within each topical area. None of the graphs indicate a distinctive bend that indicates the number of principal components that explain the variance within my data set; partly, this is a result of running the principal–components analysis across the different time periods, and below I will analyze civil and jurisdiction cases specifically around the break point at

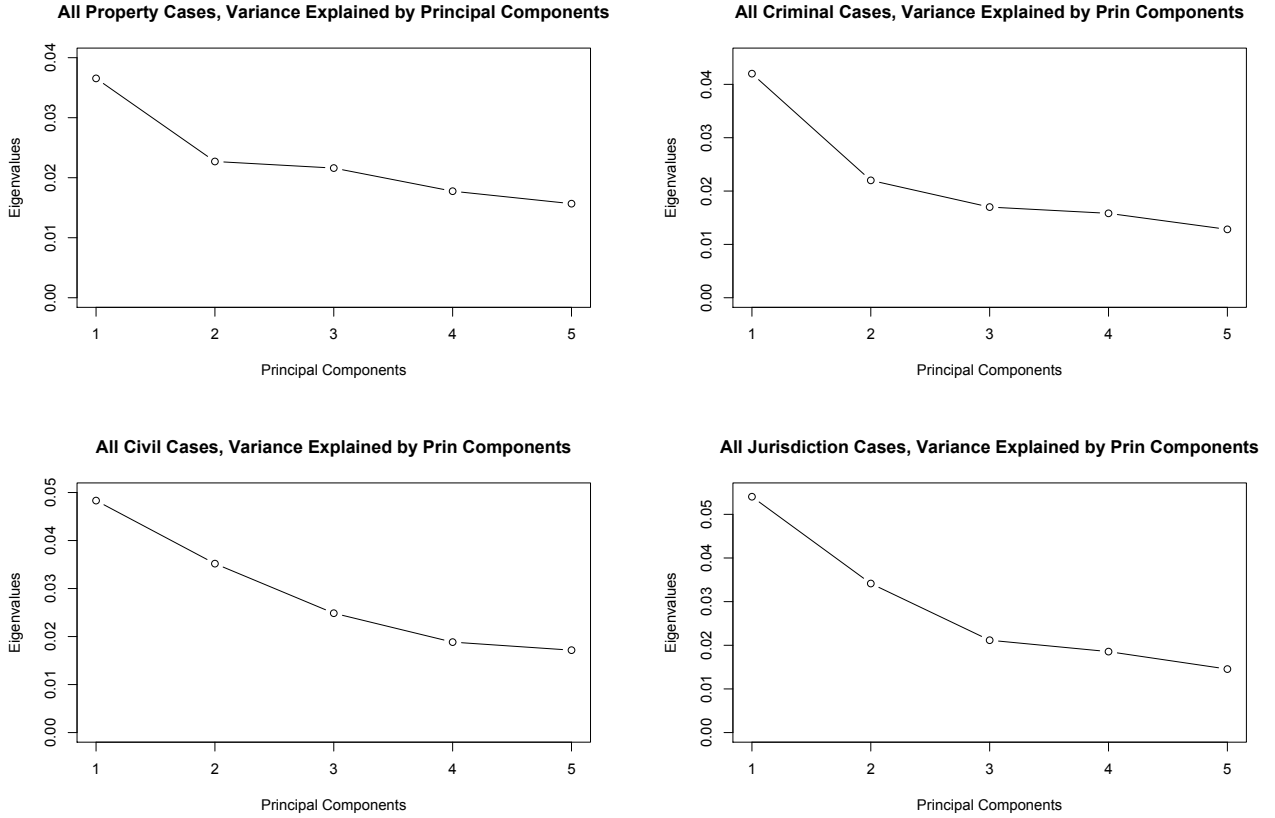


Figure 6: *Variance explained by first five principal components for all cases within each given topical area.*

1992.<sup>35</sup> As the eigenvalues indicate, for property and criminal cases, the first principal component explains approximately four *per cent* of the variance in the data, whereas in civil and criminal cases, we find approximately five to six *per cent* of the variance explained by the first principal component.

Figure 7 presents kernel–principal–components analysis for my civil cases, divided into the 1979–92 and 1993–2005 groups. As seen in the top–left panel, it is plausible that the civil subset for 1979–92 can be characterized by two principal components: the scatter plot to the top right, does indicate some clustering to the left and right explained by the first principal component as well as slight clustering up and down for the second component. The bottom–left panel, indicating civil cases post-1992, reveals a much stronger first principal component:

<sup>35</sup>To save space, I do not show the principal–components analysis for all the separate time periods across each topical area.



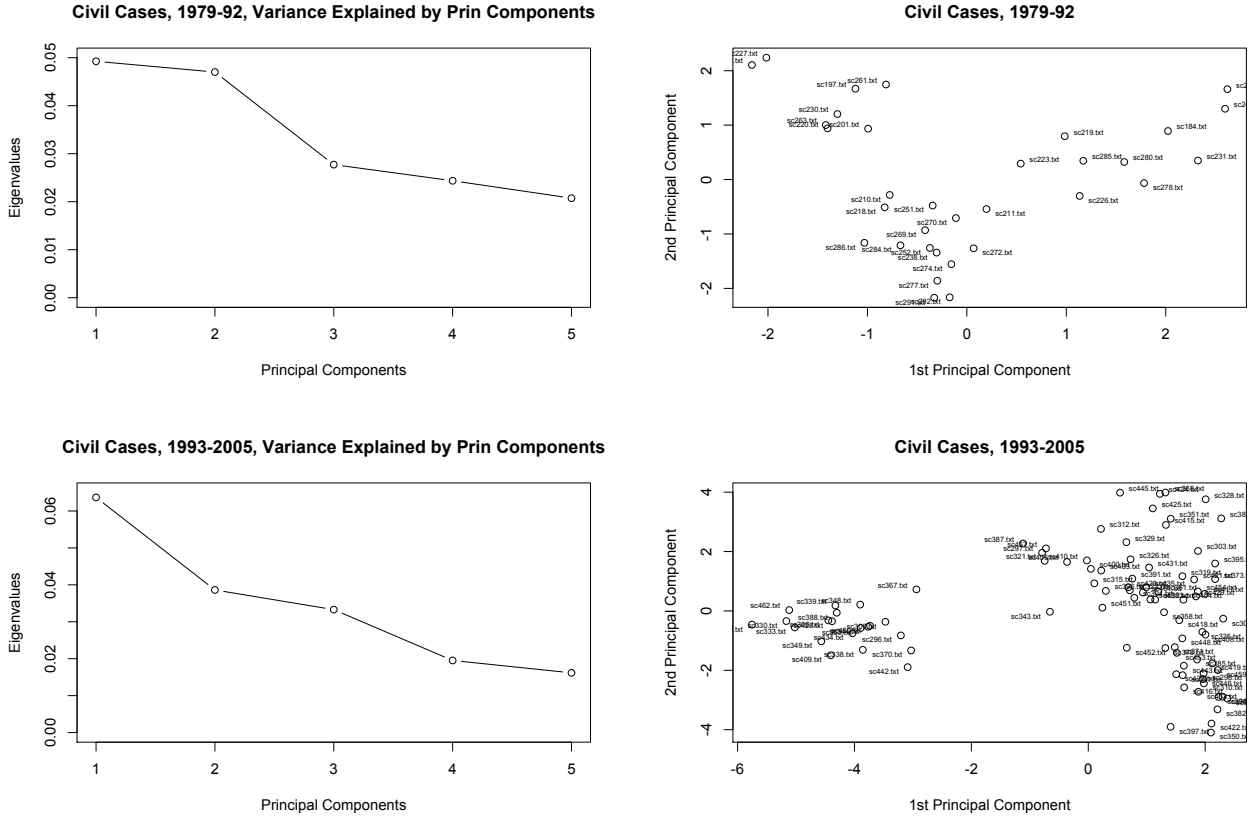


Figure 7: *Kernel-principal components analysis of civil cases across 1979-92 and 1993-2005, with associated two-component scatter plots.*

this is confirmed by the bottom-right panel, where there is much clearer left-right clustering.

Figure 8 demonstrates kernel-principal-components analysis for jurisdiction cases, divided between 1979-92 and 1993-2005. The top-left panel, corresponding to 1979-92, suggests that the data can be explained by one principal component, whose variance explained is approximately six *per cent*. The two-component scatter plot demonstrates slight left-right clustering. The bottom left, corresponding to 1993-2005, also demonstrates a stronger first principal component, explaining approximately seven *per cent* of the data's variance. The two-component scatter plot at the bottom right depicts a clearer left-right divide along the first principal component.

Table 1 indicates the characterizing words for civil cases in both my 1979-92 and 1993-2005 subsets. As explained above, I derived the characterizing words via latent-semantic

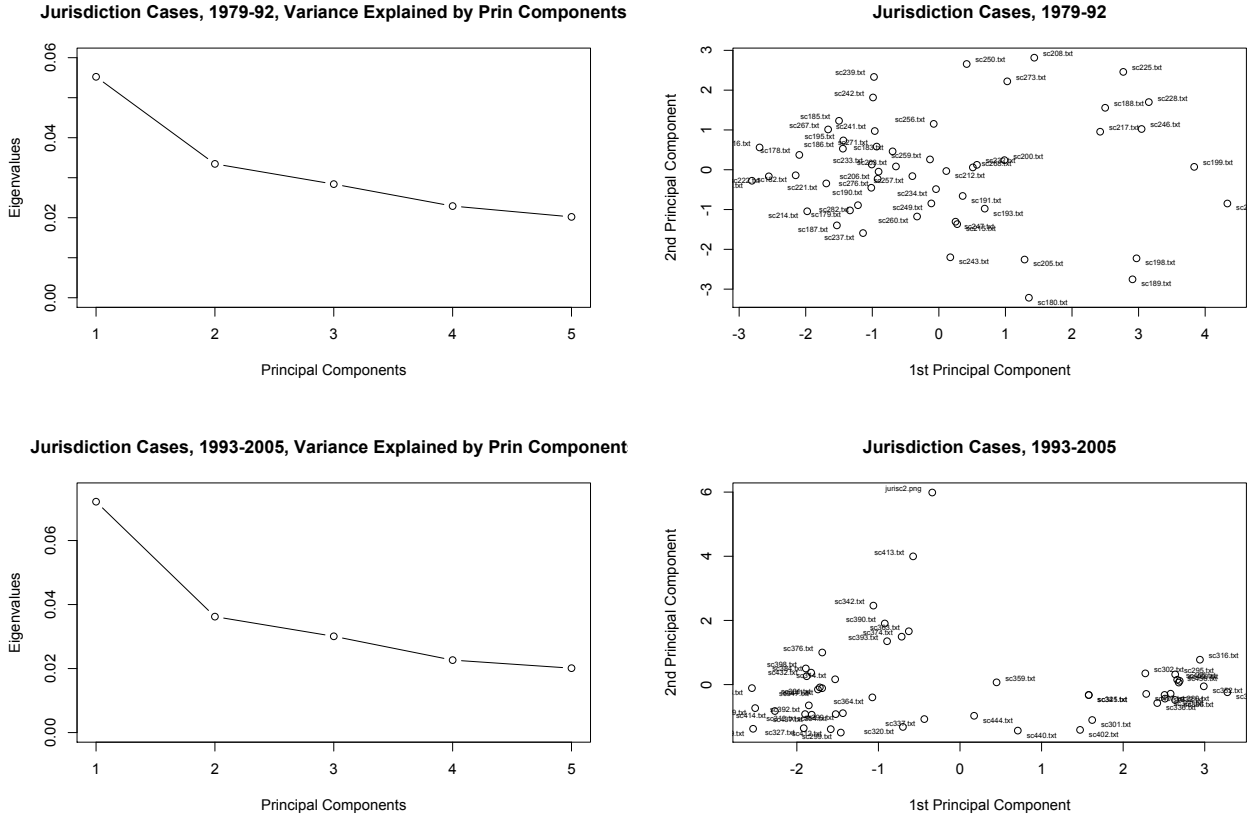


Figure 8: *Kernel-principal components analysis of jurisdiction cases across 1979-92 and 1993-2005, with associated two-component scatter plots.*

analysis, creating a transformed term-document matrix through the application of local- and global-weighted functions. In Table 1, I have indicated the years in which a case was heard, as well as the *Ghana Law Reports* citation index. I randomly sampled approximately 10 *per cent* of cases from each topical-period subset for this analysis. The first three cases—2 GLR 677, 1 GLR 47 and 2 GLR 291—are from the 1979-92 subset, while the remaining come from the 1993-2005 subset.

Table 1 shows that in the pre-1992 era, Supreme Court opinions demonstrate bias towards words such as "family", "customary" and "property". Each of the three sample cases accentuates those words. The remaining columns indicate a greater variety of opinion content, with particular focus on such words as "constitution" and "jurisdiction". There are various explanations for this phenomena. In the pre-1992 subset, it is possible that the

Table 1: *Characterizing Words for Civil Cases*

1990 2 GLR 677	1987 1 GLR 47	1990 2 GLR 291	1996 1 GLR 187	1995 1 GLR 125	1992 2 GLR 453
1979 family plaintiff property evidence	family customary head committee property	family property properties children patrilineal	constitution article 1992 constitutional jurisdiction	stool chiefs family custom kumasi	justice cause jurisdiction constitution judge
1993 1 GLR 255	1993 1 GLR 24	1999 1 GLR 69	1999 1 GLR 236	2001 2 GLR 193	2005 1 GLR 187
children deceased estate testator death	rice contract company agreement ports	exhibit justice contract judge agreement	stool chiefs family chieftaincy kumasi	justice judge plaintiff exhibit jurisdiction	exhibit witness evidence plaintiff judge

Court was constrained to only hearing a certain grouping of cases, while many cases that would normally fall under its auspices were transferred to military tribunals. Despite many of the cases in my corpus falling under the property heading, several “property” cases fell under the “civil” heading due to emphases on contracts or tort violations. The 1980s were a particularly difficult time for Ghana—years of political urban bias devastated agricultural productivity, leading to more land disputes.<sup>36</sup> Similarly, ethnic tensions were quite palpable during the 1980s, heightening property and family disputes.

The post-1992 cases display greater variety in characterizing words: this is possible if the government credibly commits to upholding constitutional provisions on judicial independence. In affirming independence, the Court might have greater incentive to tackle various cases throughout civil law, knowing that it is not beholden to political intrigue. In terms

<sup>36</sup>See: Bates, Robert. 1981. *Markets and States in Tropical Africa*. (Berkeley, CA: University of California Press).

Table 2: *Characterizing Words for Jurisdiction Cases*

1988 1 GLR 571	1989 2 GLR 99	1990 2 GLR 252	1987 GLR 944	1987 1 GLR 244
court	court	court	afrc	court
judgment	action	judgment	944	appeal
stool	judgment	appeal	armed	judgment
high	high	action	forces	lease
appeal	appeal	jurisdiction	revolutionary	jurisdiction
1999 1 GLR 358	1999 1 GLR 467	2001 1 GLR 440	2000 2 GLR 50	2001 1 GLR 319
constitution	affidavit	constitution	constitution	stool
1992	leave	1992	1992	family
article	constitution	justice	public	chiefs
provisions	rule	article	article	chief
public	1992	provisions	provisions	omanehene

of defining that first principal component, one potential explanation is that it represents distinct subsets of civil law: corporate, property, torts, patents, human rights, etc.

Table 2 presents characterizing words for jurisdiction cases heard between 1979-92 and 1993-2005. The top row represents the former period and the bottom row, the latter. Similar to the civil cases above, the pre-1992 opinions are rather uniform in their language. As jurisdiction is a sensitive issue, notably under authoritarian regimes, it is possible that pre-1992 justices were risk-averse in their writings—an indication of judicial subservience to the executive. The post-1992 opinions also exhibit uniform language, but, rather, they hone in strongly on “constitution” and “1992”. One potential explanation is that the Court now knows that the Constitution guarantees its judicial independence and right to judicial review, so it recalls those rights as much as possible to affirm its position. In doing this so vehemently at the early stages, the Court can set a precedent by which to constrain future governments from ignoring its rulings. In terms of the first principal component for jurisdiction cases

post-1993, the underlying variable might simply be a binary indication of whether a Court is likely to consider a subject matter within its legal purview. In the pre-1992 era, it is possible that the Court was unwilling to enforce its jurisdiction so clearly.

## VII. Discussion

Judicial independence is difficult to identify well, and future research must incorporate measures of precedent establishment, justices' influence and social networks. In the Ghanaian context, despite 20 years of a democratic constitution, the judiciary is still solidifying its place in the political sphere; the current Constitutional Review, which might impose yet another constitution on the country, may be beneficial for the Supreme Court.

As Stephenson [2003] delineates, political parties are the key negotiating players in whether judicial independence can exist, as this institution can ensure that bargains are enforced and that parties play by the rules. From my fieldwork in Ghana, I posit that parties are actually driven more by their organizational mechanisms than by the politicians—that is, by the party operatives in charge at the local and national levels. Several authors note that politicians can extract rents from the political process; in Ghana, where party voting is often ethnic (and, thus, guaranteed in many areas), it is the local operatives who benefit, who desire to minimize fluctuations in the revenue stream. But from where does this revenue stream arise? Political candidates and office-holders provide revenues, which often empowers local elites (Ichino & Nathan 2013). Losing elections, however, allows the party elites to remove veteran politicians and extract rents from the newcomers. An independent judiciary can provide legitimacy to these party “refreshers” by ensuring that elections are conducted fairly and challengers are heard. Interestingly, a seemingly positive equilibrium, judicial independence, can be maintained through negative human incentives. Ambition can be made to counteract ambition.<sup>37</sup>

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<sup>37</sup>Madison, James. 1788. “Federalist No. 51.”

## VIII. Conclusion

In this paper, I have applied methods of principal-components analysis to 540 Supreme Court of Ghana opinions, specifically working with kernel-principal components analysis and latent-semantic analysis to identify underlying dimensions that govern variation between the opinions. Specifically focusing on civil and jurisdictional cases on both sides of the critical 1992 ratification of a democratic constitution, I find that post-1992 cases cover a wider variety of topical areas and adhere to explicitly constitutional language, suggesting a Court that is more willing to expand its influence and prevent political curtailment of its authority. However, this evidence must be combined with further analysis, namely into how the government reacts to the Court's decisions and whether the Court is able to effectively create precedent. Similarly, research can be conducted on the influence of justices, particularly the Chief Justice, who has the power to create coalitions on certain cases. While judicial independence is an important topic for developing countries and the study of institutions, we still lack precise means of measuring it.

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