Norman Schofield · Gonzalo Caballero · Daniel Kselman *Editors* **Advances in Political Economy** Institutions, Modelling and Empirical Analysis

This book presents latest research in the field of Political Economy, dealing with the integration of economics and politics and the way institutions affect social decisions. The focus is on innovative topics such as an institutional analysis based on case studies; the influence of activists on political decisions; new techniques for analyzing elections, involving game theory and empirical methods.

Schofield · Caballero Kselman *Eds*.

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Table 1 Descriptive correlations with scores	Correlation (Age, Score):	-0.461
Sample: Top 100 most-cited	Correlation (# Cites, Score):	0.496
cases since 1946	Correlation (# Cite/Year, Score):	0.787

of the 100 most-cited opinions since 1946 with the ranking of those cases when all opinions that have been cited at least as many times as these 100 are considered.

3.1 Top 100 Opinions Since 1946

Table 2 presents the opinions with the top 36 estimated latent quality scores for this period. This is the set of opinions for which the estimated quality score is greater than 1, which is by construction the average estimated quality score for the 100 cases.

This ranking is interesting in a number of ways. The top two majority opinions score significantly higher than all of the others.¹³ The top-scoring opinion, *Chevron*, is a well-known case in administrative law with broad implications for the judicial review of bureaucratic decision-making. The second-ranked opinion, *Gregg*, clarified the constitutionality of the death penalty in the United States. Of course, the third highest scoring opinion is the famous *Miranda* decision in which the Court clarified the procedural rights of detained individuals.

Space prevents us from a full-throated treatment of the scores, but a few simple correlations are of interest. Table 1 presents three Pearson correlation coefficients relating the opinions' scores with, respectively, the age of the opinion, the number of subsequent opinions citing the opinion, and the number of subsequent opinions citing the opinion divided by the age of the opinion.

The negative correlation between the age of an opinion and its score is broadly in line with previous work on the depreciation of the precedential value (or, at least, usage) of judicial opinions.¹⁴ It is important to note, however, that this effect is *potentially* at odds with the IIA axiom on which the scoring algorithm is based. We partially return to this question below when we expand the sample of opinions.

That the correlation between the opinions' scores and the number of times each opinion has been cited by a subsequent Supreme Court majority opinion is positive is not surprising: the score of an opinion is obviously positively responsive to the number of times that an opinion has been cited, *ceteris paribus*. Accordingly, the interesting aspect of the correlation is not that it is positive but, rather, that it is not closer to 1. Indeed, inspection of Table 2 indicates, *a fortiori*, that the rank-

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- ³²¹ ¹⁴See, for example, Black and Spriggs II (2010).
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 ¹³Note that the estimated scores for the top 100 opinions sum to 100, so these two opinions account
 for over 1/8th of the sum of the estimated scores. In other words, any opinion that cites exactly
 one of these 100 cases is predicted to cite either *Chevron* or *Gregg* almost 13 % of the time.

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Rank	Name	Year	Score	# Cites	Cites/Ye
1	Chevron, USA, Inc. v. NRDC, Inc.	1984	7.52	129	6.8
2	Gregg v. Georgia	1976	5.14	266	9.9
3	Miranda v. Arizona	1966	2.72	225	6.1
4	Cannon v. University of Chicago	1979	2.62	73	3
5	Younger v. Harris	1971	1.89	129	4
6	Strickland v. Wash.	1984	1.74	68	3.6
7	Edelman v. Jordan	1974	1.65	92	3.2
8	Reynolds v. Sims	1964	1.62	144	3.7
9	Monell v. Dep't of Soc. Servs.	1978	1.58	78	3.1
10	Dandridge v. Williams	1970	1.5	132	4
11	Arlington Heights v. Metro. Hous. Dev. Corp.	1977	1.5	74	2.8
12	Mathews v. Eldridge	1976	1.49	100	3.7
13	Buckley v. Valeo	1976	1.49	100	3.7
14	In re Winship	1970	1.47	131	4
15	Eddings v. Okla.	1982	1.4	91	4.3
16	New York Times Co. v. Sullivan	1964	1.38	161	4.1
17	Baker v. Carr	1962	1.34	149	3.6
18	Gideon v. Wainwright	1963	1.28	207	5.2
19	Miller v. California	1973	1.27	131	4.4
20	Lockett v. Ohio	1978	1.26	104	4.2
21	Brown v. Board of Education	1954	1.25	155	3.2
22	Bivens v. Six Unknown Named Agents	1971	1.21	96	3
23	Monroe v. Pape	1961	1.18	134	3.2
24	Craig v. Boren	1976	1.17	70	2.6
25	S.D. Bldg. Trades Council v. Garmon	1959	1.15	89	2
26	Furman v. Georgia	1972	1.12	118	3.8
27	Terry v. Ohio	1968	1.1	97	2.8
28	Warth v. Seldin	1975	1.1	72	2.6
29	Roe v. Wade	1973	1.08	91	3
30	Textile Workers Union v. Lincoln Mills	1957	1.08	80	1.7
31	Wainwright v. Sykes	1977	1.07	71	2.7
32	Katz v. United States	1967	1.06	127	3.5
33	Roth v. United States	1957	1.05	155	3.4
34	Benton v. Maryland	1969	1.04	75	2.2
35	Stone v. Powell	1976	1.01	80	3
26	Waadaan y North Carolina	1076	1.01	07	26

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ings of the opinions with respect to the number of citations they have received and with respect to their scores are not identical. Put another way: the scores are measuring something different than the opinions' citation counts or, as it is commonly known in network analysis, the *degree centralities* of the opinions in the citation network.

Finally, the correlation between the score and the average number of times per year the opinion has been cited since it was handed down is strongly positive. This highlights the fact that the scores control for the fact that an opinion cannot cite an opinion that is rendered subsequently. Again, though, it is important to note that the ranking of the opinions generated by our scores differs from that generated by the number of citations per year. It is useful to consider the origins of this difference. Specifically, the distinction arises because of the fact that the IIA axiom on which the method is based implies that an opinion's "reward" (or score) for being cited by a subsequent opinion. At the extreme, for example, a hypothetical opinion that cited every previous opinion would compress the scores of the opinions in the sense that the scores of all opinions that initially had lower than average scores would increase as a result of the citation by the hypothetical opinion, whereas the scores of all opinion would decrease.¹⁵

3.2 Top 100 Opinions Since 1800

We now present our results for the top 100 most-cited opinions rendered between 1800 and 2002. Table 3 presents the opinions with the top 38 estimated latent quality scores for this period. As with the previous analysis for the period between 1946 and 2002, this is the set of opinions for which the estimated quality score is greater than 1.

Comparing these scores with those in Table 2, it is perhaps surprising how similar the two sets of scores are. In particular, the top three majority opinions are identical and have very similar scores in the two analyses. Things get interesting at the fourth highest-scoring position. First, the majority opinion ranked fourth-highest in the 1946–2002 analysis reported in Table 2, Cannon v. University of Chicago, is not among the top 100 most-cited majority opinions since 1819.¹⁶ The fourth highest-scoring opinion among the 100 most-cited majority opinions since 1819 is Miller v. California, in which the Court affirmed and clarified the power of state and local governments to place limits on obscenity. This opinion is, of course, among the top

 ⁴⁰⁹ ¹⁵Recall that the scores are identified only up to multiplication by a positive scalar, implying that
 ⁴¹⁰ they inherently relative scores.

⁴¹¹ ¹⁶In that case, the majority opinion affirmed an individual's right to sue recipients of federal fi-

⁴¹² nancial support for gender discrimination under Title IX, which calls for gender equity in higher education.

United States v. Socony-Vacuum Oil Co.

Red Lion Broadcasting Co. v. FCC

NAACP v. Alabama ex rel. Patterson

Ashwander v. Tennessee Valley Authority

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Terry v. Ohio

Roe v. Wade

Goldberg v. Kelly

Johnson v. Zerbst

Woodson v. North Carolina

Phelps Dodge Corp. v. NLRB

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Table 3	The 38 most influential cases among the top 100 most-cited cases since 1800						
Rank	Name	Year	Score	# Cites	Cites/Year		
1	Chevron, USA, Inc. v. NRDC, Inc.	1984	7.21	129	6.8		
2	Gregg v. Georgia	1976	5.82	266	9.9		
3	Miranda v. Arizona	1966	3.28	225	6.1		
4	Miller v. California	1973	2.04	131	4.4		
5	Younger v. Harris	1971	2.03	129	4		
6	Erie R.R. v. Tompkins	1938	1.92	189	2.9		
7	Reynolds v. Sims	1964	1.89	144	3.7		
8	Mathews v. Eldridge	1976	1.84	100	3.7		
9	In re Winship	1970	1.78	131	4		
10	Dandridge v. Williams	1970	1.76	132	4		
11	Baker v. Carr	1962	1.73	149	3.6		
12	Buckley v. Valeo	1976	1.58	100	3.7		
13	Monroe v. Pape	1961	1.57	134	3.2		
14	Brown v. Board of Education	1954	1.54	155	3.2		
15	Edelman v. Jordan	1974	1.51	92	3.2		
16	Gideon v. Wainwright	1963	1.5	207	5.2		
17	New York Times Co. v. Sullivan	1964	1.48	161	4.1		
18	Eddings v. Okla.	1982	1.44	91	4.3		
19	Bivens v. Six Unknown Named Agents	1971	1.41	96	3		
20	Chapman v. California	1967	1.39	130	3.6		
21	Lockett v. Ohio	1978	1.38	104	4.2		
22	Furman v. Georgia	1972	1.36	118	3.8		
23	Paris Adult Theatre I v. Slaton	1973	1.33	103	3.4		
24	Morrissey v. Brewer	1972	1.32	94	3		
25	San Diego Bldg. Trades Council v. Garmon	1959	1.29	89	2		
26	Duncan v. Louisiana	1968	1.26	107	3.1		
27	Roth v. United States	1957	1.25	155	3.4		
28	Katz v. United States	1967	1.25	127	3.5		

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Table 4 Descriptive	Correlation (Age. Score):	-0.466
correlations with scores. Sample: Top 100 most-cited	Correlation (# Cites, Score):	0.425
cases since 1800	Correlation (# Cite/Year, Score):	0.849
correlations of scores.	Spearman's Rank Correlation:	0.981
Sample: Top 100 most-cited	Pearson's Correlation Coefficient:	0.995

100 most-cited rendered since 1946, yet ranks only 19th in the scores reported in Table 2. This point highlights a feature of the scores in both tables: after the top 3 or 4, there is a relatively large "plateau" of scores.

Beyond visual inspection, it is useful to reconsider the correlations analogous to those reported in Table 1. These are displayed in Table 4 and closely conform to the conclusions drawn in the discussion of the correlations reported in Table 1: older opinions tend to have lower scores, and scores are positively associated with both number of subsequent citations as well as the average annual rate of subsequent citation.

3.3 Probing IIA: Top 204 Opinions Since 1800

We calculated the scores for the top 204 most-cited majority opinions since 1819. 484 This is the smallest set of most-cited opinions for the entire time period that contains the top 100 most-cited opinions rendered since 1946. Each opinion rendered after 486 1946 is accompanied by two scores and two ranks: the "Post '46" values are identi-487 cal to those reported in Table 2. The "Full" values, presented in Table 6, correspond 488 to the rank of that opinion's score from the analysis of the 204 most-cited opinions 489 since 1800 relative to the analogous scores for the opinions rendered after 1946. 490 The IIA axiom underpinning the scoring method implies that the relative ranking of 491 the opinions should be invariant to including additional opinions, as the scoring of 492 the 204 most-cited opinions does. Inspection indicates a strong similarity between 493 the two rankings. Most telling are the following two correlations between, respec-494 tively, the (relative) ranks of the 100 post-1946 opinions in the two samples and the 495 scores of these cases in the two samples in Table 5. 496

Each of these correlations indicate a *very* strong agreement between the (relative) ranks and scores, respectively, for the top 100 most-cited opinions since 1946. This agreement provides support for the supposition of IIA that identifies the method.

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4 Conclusion

In this chapter we score all Supreme Court majority opinions since 1800 on the basis
 of their "quality" (measured as influence or citability), using network citation data.

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Rank		Name	rear	Score	
Full	Post'46			Full	
1	1	Chevron, USA, Inc. v. NRDC, Inc.	1984	5.67	
2	2	Gregg v. Georgia	1976	4.23	
3	4	Cannon v. University of Chicago	1979	2.04	
4	3	Miranda v. Arizona	1966	2.03	
5	8	Reynolds v. Sims	1964	1.34	
6	5	Younger v. Harris	1971	1.31	
		Erie R.R. v. Tompkins	1938	1.29	
7	6	Strickland v. Wash.	1984	1.19	
8	10	Dandridge v. Williams	1970	1.17	
9	14	In re Winship	1970	1.14	
10	9	Monell v. Dep't of Soc. Servs.	1978	1.14	
11	15	Eddings v. Okla.	1982	1.13	
12	12	Mathews v. Eldridge	1976	1.13	
13	11	Arlington Heights v. Metro. Hous. Dev. Corp.	1977	1.11	
14	20	Lockett v. Ohio	1978	1.04	
15	19	Miller v. California	1973	1.03	
16	7	Edelman v. Jordan	1974	1.02	
17	16	New York Times Co. v. Sullivan	1964	1.00	
18	17	Baker v. Carr	1962	0.99	
19	13	Buckley v. Valeo	1976	0.98	
20	26	Furman v. Georgia	1972	0.94	
21	21	Brown y, Board of Educ	1954	0.93	
22	18	Gideon v Wainwright	1963	0.90	
23	34	Benton v Maryland	1969	0.88	
23	22	Bivens v. Six Unknown Named Agents	1971	0.87	
25	23	Monroe v Pape	1961	0.86	
26	25 25	San Diego Bldg, Trades Council y Garmon	1959	0.84	
20	23 24	Craig v Boren	1976	0.83	
28	31	Wainwright y Sykes	1977	0.82	
20	36	Woodson v. North Carolina	1976	0.82	
30	33	Roth y United States	1970	0.82	
31	30	North Carolina y Pearce	1060	0.81	
37	12	Iniversal Camera Corp. y. NI DD	1909	0.01	
32	42 27	Terry v. Obio	1951	0.00	
24	20	Taxtile Workers Union y Lincoln Mills	1900	0.00	
25	30	Votz v United States	1937	0.79	
55	32	Katz v. United States	1907	0.78	

 Table 6
 Comparing scores of post 1946 cases (full sample: 204 most-cited opinions since 1800)

Measuring the Latent	Quality of Prece	edent: Scoring '	Vertices in a	Network
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Rank	Name		Year	Score		
Full	Post'46			Full	Post'46	
37	38	Morrissey v. Brewer	1972	0.77	0.98	
38	43	Paris Adult Theatre I v. Slaton	1973	0.76	0.93	
39	45	Cohen v. Beneficial Industrial Loan Corp.	1949	0.75	0.91	
40	28	Warth v. Seldin	1975	0.75	1.10	
41	35	Stone v. Powell	1976	0.74	1.01	

In placing all such opinions on a common scale we are faced with the problem that majority opinions cite heterogeneous numbers of other opinions and that an opinion cannot be cited by a different opinion that predates it—our network is necessarily incomplete. To deal with the incomplete nature of our data we utilize an axiomatic scoring method that is designed to compare objects that have never been directly compared in the data.

570 The scores calculated by this method are analogous to measures of network 571 influence-specifically, it is a vertex metric. As such, it fundamentally differs from 572 other centrality measures for partially connected networks such as eigenvector cen-573 trality and degree centrality. One difference is that our measure does not utilize the 574 score of s in computing the contribution of link (s, v) to v's score (as in eigenvec-575 tor centrality); instead our score utilizes the scores of the other w that could have 576 potentially influenced s, or $\{w : (s, w) \in E\}$. In generating estimates of the x_i using 577 observed network and community data we impute "influence relationships" between 578 vertices that did not have the potential to interact. This leads to the following inter-579 pretation of our scores: if there were a hypothetical vertex with a community equal 580 to the set of all possible vertices, then our scores represent the expected influence of 581 each vertex on that hypothetical vertex.

582 The analysis presented in this chapter is preliminary, with an obvious shortcom-583 ing being the fact that we assume that the community of a case i, or collection of 584 cases that could potentially influence i, consists of all of the cases that predate it. In 585 future work we intend to allow community structure to be determined not only by 586 the year in which a case was considered but also by the topic of the case. Addition-587 ally, we hope to apply our scoring method to other types of incomplete network data 588 as we believe it provides a useful new measure of node centrality that generalizes 589 the concept of in-degree centrality.

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The Politics of Austerity: Modeling British **Attitudes Towards Public Spending Cuts**

Harold D. Clarke, Walter Borges, Marianne C. Stewart, David Sanders, and Paul Whiteley

> Are there no prisons?... And the union workhouses, are they still in operation? Ebenezer Scrooge to Charity Collector, 1851

Beginning in 2008 financial crises and ensuing economic turbulence have prompted 17 acrimonious national debates in many Western democracies over the need for sub-18 stantial budget cuts and debt reductions. Among economic and political elites there 19 is broad agreement that substantial public sector budget cuts are necessary to address 20 unsustainable sovereign debt loads and establish long-term fiscal integrity. Many 21 ordinary citizens see things differently-proposed austerity measures threaten pro-22 23 grams that aid the disadvantaged while challenging longstanding public commit-24 ments to education, health and personal security that constitute the foundation of the modern welfare state. Coming close on the heels of massive, widely publicized 25 26 bailouts of major banks, investment firms and manufacturing companies, the pro-27

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posed reductions in public sector spending threaten to overturn the distributional policy consensus in contemporary mature democracies.

As of this writing, several countries—*inter alia*, Ireland, Italy, Greece, Portugal, Spain, the United States and the United Kingdom—either have implemented or are seriously contemplating large-scale budget cuts that will necessitate painful reductions in public services and benefits. Perhaps the best known case is Greece where the European Union and the International Monetary Fund have dictated draconian financial policies to remedy the country's sovereign debt crisis. The result has been widespread, oftentimes violent, public protests and ongoing political turmoil. In the United Kingdom, proposed public-sector cuts have prompted civil unrest and charges that the Conservative-led Coalition government accords higher priority to enacting a neo-Thatcherite ideological agenda of small government and reprivatization than the provision of effective health care and education for its citizens.

60 This study focuses on the British experience. Confronted with a pernicious com-61 bination of rising public debt and growing unemployment when his coalition gov-62 ernment of Conservatives and Liberal Democrats assumed power in May 2010, Prime Minister David Cameron and his Chancellor of the Exchequer, George Os-63 64 borne, proposed to cut an average of 20 percent from government spending over 65 the next four years (Burns 2011). The plan was to reduce the budget by £83 billion 66 by eliminating 490,000 government jobs, curtailing benefits, and chopping a broad range of "unnecessary" programs (BBC 2011). Public employee pay was frozen for 67 68 two years, with the prospect of one percent annual raises offered for the follow-69 ing two years. Reductions in the government workforce would be mitigated by in-70 creased participation by civic-minded volunteers who would provide public services 71 pro bono—a devolution-of-power and responsibility that Cameron and his advisors 72 termed "the Big Society".

Progress towards these goals has been slow—by the end of 2011, the UK inflation rate was nearly five percent and unemployment exceeded eight percent (Burns). Economic growth has been less than projected and Chancellor George Osborne now anticipates that the public sector cuts will take seven years to clear the deficit (Werdigier 2011). The projected level of spending reductions is now fully £123 billion. A sense that the cuts are "too far, too fast" is increasingly widespread, being enunciated both in the news media (Bloomberg 2011) and, as will be documented below, in public opinion surveys.

Nothing has prompted more resistance than the Coalition Government's attempt to devolve management and ownership of the National Health Service, its hospitals and other facilities to physicians and private investors. Public skepticism about the benefits of such moves has been compounded by criticism by medical professionals. Fearing the political repercussions of such negative reactions to his plans for the NHS, Cameron and his Health Secretary, Andrew Lansley, have excluded professional groups representing physicians, nurses and midwives from recent conferences on how to implement the reforms.

Models incorporating demographic, attitudinal and evaluative variables are staples in analyses of public support for political parties and their leaders, and here we develop similar models for policy preferences. We first investigate the nature of

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