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**Case Complexity and Citation to Judicial
authority – Some Empirical Evidence from the
New Zealand Court of Appeal**

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ABSTRACT

This paper uses a data set on reported decisions of the New Zealand Court of Appeal to empirically test the influence of case complexity on the extent to which courts attempt to establish legitimacy through the citation of precedent. This is an application of Feldman and March's argument about the symbolic and signaling functions of information in organizations. Feldman and March argue that decision-makers gather and display information relevant to a decision in order to show that they are good decision-makers and that the symbolic value of information will be greater in more complex decisions. The results only provide weak support for Feldman and March's thesis with few statistically significant variables. These findings contrast with those of a similar previous empirical study by Harris for the United States State Supreme Courts. The paper concludes with a discussion of the possible reasons for the different findings.

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1. INTRODUCTION

There is a sizeable conceptual literature that attempts to understand courts as organizations.¹ There is, however, a lack of relevant empirical research. First, there is little empirical research on courts as organizations.² Second, there is a lack of empirical research on how courts communicate legitimacy.³ Third, most research on the legitimacy of courts and courts as organizations, empirical or otherwise, focuses on the United States which impedes attempts to build more general theories of the governance of courts.⁴ Gibson and Caldeira make the general point: “Despite the pleas of scholars (eg Tate),⁵ most research on legitimacy focuses on the United States, with little analysis conducted of the legitimacy of non-U.S. courts or transnational law and legal institutions. As important as legitimacy is, it is surprising how little we know about its origins and its consequences for the broader legal and political systems”.⁶

This paper empirically tests one aspect of the role of courts as organizations; namely, how courts communicate legitimacy and the influence of complexity on the extent to which the courts attempt to establish legitimacy through the citation of precedent. This is an application of Feldman and March’s⁷ argument about the symbolic and signaling functions of

information in organizations. The one previous study of this sort is by Harris⁸ who employs data for United States State Supreme Courts to test Feldman and March's thesis. He found that there was a significant positive relationship between citation to previous cases and a range of proxies measuring case complexity.

This study examines the relationship between citation to precedent and a number of the proxies Harris used in a sample of reported decisions of the New Zealand Court of Appeal. In contrast to Harris' findings, the results of this study suggest that the relationship between citation to precedent and case complexity is fairly weak with few statistically significant variables. The paper is set out as follows. In the next section Feldman and March's basic argument is discussed in more detail and Harris' findings are reviewed. Section three gives some background information on the form of judgment writing in the New Zealand Court of Appeal, discusses the methodology employed in the study and presents the results. The final section speculates on the reasons why the results in this study differ from those of Harris.

2. THEORY AND EXISTING LITERATURE

Feldman and March suggest that decision-makers gather and display information relevant to a decision in order to show that they are good

decision-makers. Therefore, the display of information is a display of competence and it is this that provides a decision with legitimacy. As described by Feldman and March:

The gathering of information provides a ritualistic assurance that appropriate attitudes about decision making exist. Within such a scenario of performance, information is not simply a basis for action. It is a representation of competence and a reaffirmation of social virtue. Command of information, and information sources, enhances perceived competence and inspires confidence. The belief that more information characterizes better decisions engenders a belief that having information, in itself, is good and that a person or organization with more information is better than a person or organization with less.⁹

Feldman and March argue that the symbolic value and signaling uses of information will be greater under certain circumstances.¹⁰ These include situations in which decision-making criteria are ambiguous, performance measures are vague, decision quality is established slowly and decision-makers are tied to rational ideologies more than other legitimating myths such as faith and tradition. As Harris notes all of these features of decision-making are prevalent in appellate courts. He points out: "Such decision

criteria as constitutionality, justice and accordance with precedent are highly ambiguous. Performance measures of appellate decisions are not only vague, they are nearly entirely missing. Views on the quality of the appellate decision can change with each succeeding generation of legal critics”.¹¹

The concept of legitimacy is of central importance within this framework. According to Weber the source of legitimate authority in the modern bureaucratic state is a formal legal order which promotes the voluntary consent of the ruled.¹² However, before the legal system can legitimize the rule of law, courts must first secure their own legitimacy. In other words, according to legal theory, judges decide “according to law”. They are not free to decide cases as they please.¹³ Thus, it is a critical feature of judicial decision-making that judges, unlike other public officials, are expected to give reasons for their decisions.¹⁴ The requirement to give reasons can be seen as protection against arbitrary decision-making.¹⁵ As Lord Denning put it, the giving of reasons is “the whole difference between a judicial decision and an arbitrary one”.¹⁶ Moreover, a judge’s reasons for decision are typically organized around citations to judicial authority; that is judges explain what they have done by relating their decision to what other judges have written to explain what *they* have done.¹⁷ Some decisions require more

legitimization than others. These include cases which are technically complex, where the law is uncertain and where the economic and political implications are more far reaching. In these cases it is even more important that the decision be seen as legitimate, meaning that the court will be particularly careful to fully justify it with an extensive display of reasoning and reference to previous authorities.¹⁸

The doctrine of precedent requires that when judges assert new legal doctrine they must couch it in terms of existing doctrine. However, the extent to which judges feel compelled to place their decisions in the context of existing decisions depends on the relative importance of precedent versus policy considerations. In British Commonwealth countries, prior to the 1970s, judges generally denied that they had any law-making function. Judges portrayed themselves as finding and applying, not making, the law.¹⁹ This started to change when Lord Reid, suggested that the notion that judges did not make the law was a “fairytale”.²⁰

There is now wide recognition among judges in British Commonwealth countries, including senior New Zealand judges, that judges do make the law.²¹ This has increased the importance of policy considerations vis-à-vis precedent in judicial reasoning. Writing about recent cases in the New

Zealand Court of Appeal, Best notes, “we are seeing a more open acknowledgment that certain decisions, sometimes effecting significant changes in the law, depend on policy considerations with the doctrine of precedent becoming secondary”.²² This trend in decision-making represents a potentially important qualification to the hypothesis that judges will cite more authority in complex cases for two reasons. First, cases which are complex might be complex precisely because they involve policy considerations and fleshing out the implications of those policy considerations need not involve increased citation to existing authority. Second, because there is much wider acceptance that judges make law, judges might seek to demonstrate the competency or legitimacy of their decisions in complex cases through discussing the socio-economic implications of those decisions rather than citing additional cases.

The study by Harris used 5,976 majority opinions, written by 16 US State Supreme Courts between 1870 and 1970. Harris investigated the relationship between the number of citations per opinion and various indicators of complexity through examining the analysis of covariance. The indicators of complexity which he used were the existence of dissenting and concurring opinions, reversals, the existence of constitutional issues,

whether there were multiple parties, whether amici curiae were involved, whether the hearing was discretionary, the value in dispute and whether there was a subsequent appeal to the US Supreme Court. While there are some differences depending on the exact specification, Harris found that most or all of the covariates had a positive sign and were statistically significant at the 1 per cent level, which is strong support for the application of Feldman and March's hypothesis to judicial decision-making.

3. THE EMPIRICAL STUDY

The New Zealand Court of Appeal

The New Zealand Court of Appeal (hereafter Court of Appeal) is an intermediate court of appeal. It sits above the New Zealand High Court, but below the Judicial Committee of the Privy Council. Appeal from the Court of Appeal to the Judicial Committee is by way of special leave. There have been relatively few appeals from the Court of Appeal to the Judicial Committee in recent times, while, at the same time, there has been considerable speculation that appeals to the Judicial Committee will be soon abolished.²³ In contrast to the US Supreme Court, the Court of Appeal has no regular conference and opinion writing allocation systems. Instead the extent to which the Justices confer or circulate judgments amongst themselves is a function of the personalities of the individual judges, the friendships and informal contacts between them and sitting arrangements.

The Court of Appeal follows the English practice of seriatim opinion writing. This means that there is no actual “opinion of the Court” or “majority opinion” as in the United States. There are cases where a unanimous court gives a single judgment or where judges write a joint judgment or concur in the judgment of another. However, separate judgments agreeing with the outcome but not the reasons of the majority and dissenting judgments disagreeing with both the outcome and majority reasons are also common.²⁴

Data Set and Methodology

The original intention was that the sample cases in this study would be the 300 most recent Court of Appeal decisions reported in the New Zealand Law Reports as of December 1999. However, of these there were three cases where it was not clear whether there was to be a subsequent appeal to the Judicial Committee, which left a final sample of 297 cases. The fact that the sample does not include unreported judgments is a possible problem, although it is still likely that the sample covers the 300 most important cases for the display of information over the relevant period. As McCormick puts it: “Reported cases probably include a very high proportion of all the decisions sufficiently important to call for reasoned judgment based on authority”.²⁵

In constructing the dependent variable – citations to authority - all citations to case law and secondary authorities such as books and journal articles in the sample cases were counted. If a case or secondary authority received repeat citations in the same paragraph it was counted only once; however, if there were repeat citations in later paragraphs these were counted again. The rationale for following this approach is that if the source is cited two or more times in the same paragraph, it was assumed that it was being cited for the same proposition. If it was cited again in a subsequent paragraph, though, it was assumed it was being cited for a different proposition. When secondary authorities were cited in a joint judgment, each citation was multiplied by the number of judges who participated in the judgment. However, in cases where Justice A concurred with Justice B and Justice B cited authorities, Justice A was not attributed with citing that material. There are two other issues which deserve specific mention. First, references to judgments in lower courts in the same case and cases cited in lower courts in the same case were not counted. Second, if a judgment was cited from another case that case was counted, but cases cited in the quoted section of the cited case were not. Following Harris, for each case information was also recorded on

various indicators of the complexity of the decision. These are set out and discussed in detail in the next sub-section.

Definition of Variables and Hypotheses

The definition of each of the explanatory variables and their expected signs are given in table 1. Five of the seven indicators of complexity – AMICAE CURIAE, APPEAL, DIFFER, DISSENT and MULTIPLE - are the same as used in the Harris study. Harris includes a dummy variable set equal to 1 if a constitutional issue was involved. New Zealand does not have a written constitution, so a dummy variable set equal to 1 if an issue of personal liberty was at stake was used instead. Harris (1985) includes a dummy variable set equal to 1 if the case involved a discretionary hearing. This is because in Harris' study some US State Supreme Courts had discretion to hear the appeal and for others the appeal was automatic. The Court of Appeal had discretion to hear the appeal over the entire period of the study, so this variable is not relevant. Harris included a variable measuring the financial value in dispute between the parties. This study does not include such a variable because only sporadic information was obtainable from the reports on the financial value at stake in civil cases. This study includes one indicator of decision difficulty – PER CURIUM – that is not used in Harris'

study. *PER CURIUM* is a dummy variable set equal to 1 if the Court of Appeal delivered a single joint judgment and is set equal to zero otherwise.

INSERT TABLE 1

Feldman and March's theory about the display of information suggests several hypotheses concerning the relationship between citation to previous authorities and each of these indicators of complexity. The first is that the presence of *amici curiae* will increase the number of citations to previous authorities. The reason for this is that the case is likely to be more complex if *amici* are involved. As Harris puts it:

Amici may make the case difficult simply by presenting an additional point of view, a different contention to be resolved along with the direct claims in the case. Further, they may show by their presence that the case is troublesome, as they will tend to join cases in which the decision will have a broad sweep, with consequences important to persons beyond those immediately involved.²⁶

The second hypothesis is that if there is an appeal from the decision of the Court of Appeal to the Judicial Committee, the Court of Appeal will cite more previous authorities. If there is an appeal from the Court of Appeal to the Judicial Committee this suggests the legal issues are complex with

normally far reaching implications for the development of the law in New Zealand. The Court of Appeal has stated that to grant leave to appeal to the Judicial Committee something more must be shown than that an important question of law is involved. Usually it must be shown that the question involved is one which, because of its great general or public importance, should be carried further.²⁷ This criteria is reflected in the fact that the majority of applications for discretionary leave are denied, meaning that only the most difficult cases make it to the Judicial Committee.²⁸ Of the 297 cases in this study, there were 10 subsequent appeals to the Judicial Committee, which constitutes 3.4 per cent of the sample cases.

The third hypothesis is that if the Court of Appeal is reversing the decision of the Court below it, it will cite more authorities. This is because the Court of Appeal is more likely to differ from the court below it in complex cases, in which reasonable points of view about what the law is, or should be, compete for acceptance. In such instances, following Feldman and March's thesis, the extra display of information helps the Court of Appeal to legitimize its decision to differ from the court below it. The fourth hypothesis is that the Court of Appeal will cite more authorities in cases in which there are one or more dissenting judgments. The reason for this is that when the legal issues are complex judges are more likely to disagree

about the outcome.²⁹ Canon and Jaros argue that cases which reflect socially important conflicts often produce dissenting judgments.³⁰ Harris notes that even if the issues involved are not particularly controversial, dissents occur more in unusual cases because the application of the law is uncertain.³¹

The fifth hypothesis is that the Court of Appeal will cite more authorities in issues involving loss of personal liberty. These cases involve criminal cases and some immigration deportation cases where personal liberty was at stake. There are two reasons why one might expect the Court to cite more authorities in such cases. First, criminal cases are often of great social importance and involve issues at the cutting edge of the law.³² Second, where personal freedom, including freedom of movement, is at stake, as opposed to mere financial value, the Court might feel compelled to spend more time signaling the competency and legitimacy of its decision. The sixth hypothesis is that if there is more than one litigant on either side in a case, the Court will display more information in the form of citation to precedent. Where there are multiple parties, courts are often required to address issues in multiple dimensions and this is more likely to lead to disagreement among the judges.³³ The reason for this is that the number of different parties and therefore claims are directly related to the complexity of the issues in the case.

The final hypothesis is that the Court will cite less authority in unanimous judgments where all judges agree on the outcome and reasons. Not all cases are equally salient to the justices, and they are more likely to be concerned with the legal rules announced in important cases.³⁴ This means that in unimportant cases, justices may be willing to ignore their preferences in order to facilitate consensus.³⁵ In such cases, legitimizing their position through the display of information will be less important. However, where the case is important and/or complex opinions will differ as to the appropriate reasoning and this produces multiple judgments. As Justice Ginsburg of the United States Supreme Court has described it: “Hard cases do not inevitably make bad law, but too often they produce multiple opinions”.³⁶

Results

In order to examine the effect of complexity on citation to authority two methods of regression analysis were used. The first was ordinary least squares (OLS) where citations per judgment were regressed on the explanatory variables. When using OLS two dependent variables were tried. These were total citations per judgment, including citation to secondary authority, but excluding citations to statutes, and core citations per judgment where core citations were defined as prior decisions of the Court of Appeal

and Judicial Committee. The distinction between core citations and total citations is designed to take account of differences in the quality of the citation. It is arguable that when judges use information as a signaling device, it is core citations which matter because, given that they are binding, these are the most relevant to the decision making process.³⁷ In addition to OLS, a logit regression was run for both core citations and total citations. This requires a dichotomous dependent variable, which took the value 1 if the number of citations per judgment exceeded the mean number of citations for all judgments in the sample and took the value zero otherwise. Table 2 contains descriptive statistics for total citations, core citations and each of the explanatory variables. The mean number of total citations per judgment was 8.87 and the mean number of core citations per judgment was 3.11.

INSERT TABLE 2

Table 3 presents the OLS estimates treating total citations per judgment as the dependent variable. The underpinning theory makes no prediction about appropriate functional form so the model was estimated in both linear and log-linear functional forms. Prior to running the regressions, Pearson correlation coefficients were calculated to detect the presence of multicollinearity between explanatory variables. Multicollinearity is generally not a problem for interpreting the results with only two

independent variables – DISSENT and PER CURIUM - having a Pearson correlation coefficient greater than or equal to 0.3. The correlation coefficient for these two variables was -0.59 .

For this reason three specifications are reported in both linear and log-linear functional forms. These are the full model, which includes all variables, and partial models omitting either DISSENT or PER CURIUM. With the exception of specification III in table 3, Ramsey's RESET test shows no specification error.³⁸ White's heteroskedasticity test suggests that the null hypothesis of homoskedasticity should be accepted in specifications I-III and VI.³⁹ In specifications IV and V, White's heteroskedasticity test rejected the null hypothesis of homoskedasticity in initial regressions. Thus reported t-statistics were calculated using White's heteroskedasticity consistent covariance. Several of the variables have signs consistent with theoretical predictions and AMICAE CURIAE is close to being significant at 10 per cent in several specifications; however, the only variable which is significant with the predicted sign, and only in specifications I and II, is PER CURIUM.

INSERT TABLE 3

Table 4 presents the logit estimates where the dependent variable takes the value 1 if the number of total citations per judgment exceed the mean (8.87) and is zero otherwise. In each specification in which it is entered PER CURIUM has the predicted sign and is significant at either 1 per cent or 5 per cent. DISSENT is not significant in the full model, probably because of collinearity with PER CURIUM, but it has the predicted sign and is significant at 5 per cent in specification II. The likelihood ratio test statistic is insignificant in specifications I and II, but is significant at 10 per cent in specification III.

INSERT TABLE 4

Table 5 presents OLS estimates where the dependent variable is core citations per judgment. Ramsey's RESET test shows that there is no evidence of specification error in any of the models and White's heteroskedasticity test indicates that the null hypothesis of homoskedasticity should be accepted in all specifications. However the only explanatory variable which is significant is LIBERTY. It has the predicted sign and is significant in each specification. In table 5, the F-statistic is also significant in each of the specifications using a log-linear functional form, which rejects the null hypothesis that the true slope coefficients are simultaneously zero.

Table 6 presents the logit estimates where the dependent variable takes the

value 1 if the number of core citations per judgment exceed the mean (3.11) and is zero otherwise. LIBERTY has the predicted sign and is significant at 1 per cent in each specification. PER CURIUM has the expected sign and is significant at 1 per cent in specifications I and III. DISSENT has the correct sign and is significant at 5 per cent in specification II. The likelihood ratio test statistic is significant at 1 per cent in each specification.

INSERT TABLES 5 and 6

4. CONCLUSION

These results reject several of the hypotheses, with a number of the variables being insignificant in all specifications for both OLS and logit estimates. The results suggest that DISSENT and PER CURIUM are consistently statistically significant indicators of the number of core and total citations per judgment. LIBERTY was not significant in explaining total citations, but was highly significant in explaining the number of core citations. On the other hand, AMICAE CURIAE, APPEAL, DIFFER and MULTIPLE were insignificant in OLS and logit regressions for both core citations and total citations.

A possible reason why the results here differ from Harris' is that in this study the results are for a different court with different decision-making and

institutional arrangements. Another factor is that it also covers a different, more recent, time period. Earlier it was suggested that over the course of the last three decades and, in particular the last 10 years, there has been a shift in appellate courts in British Commonwealth countries away from the primacy of precedent towards a much more explicit recognition of policy considerations. This represents an important qualification on applying Feldman and March's basic thesis to judicial decision-making if cases are complex precisely because they involve broad ranging policy issues and/or if judges are substituting discussion of the policy implications of their decisions for citation to authority in complex cases.

If this is what is happening, this does not necessarily mean that judges are displaying less information in support of their decisions, but rather, in focusing on the policy implications of their decisions, they are signaling a different type of information than in the past. While any conclusions along these lines are necessarily tentative at this stage, the results suggest that more research is needed in this area using data on courts with a range of different decision-making and institutional structures including those outside the US. Without such empirical studies it is difficult to reach firm conclusions about how courts use information to communicate legitimacy

or, at a more general level, build better-informed theories of the organizational characteristics of courts.

TABLE 1
DEFINITION OF EXPLANATORY VARIABLES

VARIABLE	DEFINITION	EXPECTED SIGN
AMICI CURIAE	Dummy variable, which takes the value 1 if amici curiae is involved and is set equal to zero otherwise	Positive
APPEAL	Dummy variable, which takes the value 1 if there was a subsequent appeal to the Judicial Committee and is set equal to zero otherwise	Positive
DIFFER	Dummy variable, which takes the value 1 if the Court of Appeal differed from the Court below it and is set equal to zero otherwise	Positive
DISSENT	Dummy variable, which takes the value 1 if there was one or more dissenting judgments and is set equal to zero otherwise	Positive
LIBERTY	Dummy variable, which takes the value 1 if the case involved an issue of personal liberty and is set equal; to zero otherwise	Positive
MULTIPLE	Dummy variable, which takes the value 1 if there were more than two plaintiffs and/or defendants and is set equal to zero otherwise	Positive
PER CURIUM	Dummy variable, which takes the value 1 if the Court of Appeal delivered a single joint judgment and is set equal to zero otherwise	Negative

TABLE 2
DESCRIPTIVE STATISTICS

TOTAL CITATIONS	Mean	8.874
	Median	6.000
	Maximum	82.000
	Minimum	0.000
	Standard Deviation	9.160
	Number of cases where total citations are above the mean	106
	Number of cases where total citations are below the mean	191
	CORE CITATIONS	Mean
Median		2.000
Maximum		78.000
Minimum		0.000
Standard Deviation		5.300
Number of cases where core citations are above the mean		91
Number of cases where core citations are below the mean		206
AMICI CURIAE		Amici Curiae involved
	Amici Curiae not involved	281
APPEAL	There was a subsequent appeal to the Judicial Committee	10
	There was no subsequent appeal to the Judicial Committee	287
DIFFER	The Court of Appeal differed from the Court below it.	145
	The Court of Appeal affirmed the decision of the Court below it	152
DISSENT	There was a dissenting judgment	25
	There was no dissenting judgment	272
LIBERTY	The case involved an issue of personal liberty	81
	The case did not involve an issue of personal liberty	216
MULTIPLE	There were more than two parties	115
	There was only two parties	181
PER CURIUM	The Court of Appeal delivered a single joint judgment	235
	There were multiple judgments	62

TABLE 3
OLS ESTIMATES OF FACTORS EXPLAINING CITATION PATTERNS IN
THE NEW ZEALAND COURT OF APPEAL
DEPENDENT VARIABLE IS TOTAL CITATIONS

Variables	Linear			Log-linear		
	I	II	III	IV	V	VI
Constant	12.242* (7.432)	11.433* (8.258)	9.440* (10.253)	1.928* (8.902)	1.995* (12.607)	1.838* (20.572)
AMICAE	2.905 (1.217)	2.847 (1.194)	2.884 (1.202)	0.304 (1.298)	0.309 (1.332)	0.304 (1.284)
CURIAE	1.266 (0.423)	0.987 (0.332)	0.758 (0.253)	0.130 (0.522)	0.153 (0.620)	0.114 (0.397)
APPEAL	-1.360 (0.208)	-1.433 (0.184)	-1.231 (1.137)	-0.075 (0.715)	-0.070 (0.657)	-0.070 (0.506)
DIFFER	-2.172 (0.907)	-	0.688 (0.352)	0.174 (0.751)	-	0.265 (1.416)
DISSENT	0.027 (0.022)	0.034 (0.027)	-0.448 (0.365)	0.065 (0.541)	0.070 (0.584)	0.050 (0.419)
LIBERTY	-0.114 (0.146)	-0.120 (0.153)	-0.195 (0.248)	-0.036 (0.648)	-0.036 (0.644)	-0.038 (0.507)
MULTIPLE	-3.388** (2.046)	-2.511*** (1.869)	-	-0.108 (0.501)	-0.180 (1.191)	-
PER CURIUM	1.009	1.041	0.474	0.677	0.697	0.716
F-statistic	.001	0.001	-0.111	-0.008	-0.006	-0.006
Adjusted R ²	0.845 [1, 290]	0.076 [1, 290]	4.887** [1, 290]	0.053 [1, 282]	0.001 [1, 282]	0.306 [1, 282]
RESET (2)	1.495 [2, 289]	0.075 [2, 289]	2.874*** [2, 289]	0.034 [2, 281]	0.003 [2, 281]	0.152 [2, 281]
RESET (3)	0.993 [3, 288]	0.055 [3, 288]	1.994 [3, 288]	0.133 [3, 280]	0.187 [3, 280]	0.127 [3, 280]
RESET (4)	White's Heteroskedasticity Test	15.780	11.745	9.443	-	23.832
Number of Observations	297	297	297	289	289	289

Note:

- * t-statistics are significant at 1 per cent
- ** t-statistics are significant at 5 per cent
- *** t-statistics are significant at 10 per cent
- ++ RESET test indicates specification error at the 5 per cent level.
- +++ RESET test indicates specification error at the 10 per cent level.

Figures in round parenthesis for columns I-III and VI are student t statistics. For columns IV and V White's heteroskedasticity test rejected the null hypothesis of homoskedasticity in initial regressions. Thus reported t-statistics were calculated using White's heteroskedasticity consistent covariance. Figures in square parenthesis below RESET tests are degrees of freedom. RESET test shows no specification error in columns I-II and IV-VI: At the 5 per cent level, the critical values for the F-statistic at (1, >200) is 3.84; at (2, >200) is 3.00; at (3, >200) is 2.6. White's heteroskedasticity test follows a chi-square distribution with 20 degrees of freedom (columns II-III and V-VI) and 25 degrees of freedom (columns I and IV). The critical values of the chi-square distribution at 5 per cent are 31.4 and 37.7 respectively.

TABLE 4
LOGIT ESTIMATES OF FACTORS EXPLAINING PATTERNS IN TOTAL
CITATIONS THE NEW ZEALAND COURT OF APPEAL

Variables	I	II	III
Constant	0.197 (0.534)	-0.457** (2.150)	0.264 (0.839)
AMICAE CURIAE	-0.466 (0.768)	-0.471 (0.779)	-0.460 (0.758)
APPEAL	0.281 (0.414)	0.152 (0.226)	0.305 (0.454)
DIFFER	-0.381 (1.510)	-0.344 (1.378)	-0.374 (1.484)
DISSENT	0.180 (0.342)	0.845** (1.957)	-
LIBERTY	0.201 (0.698)	0.081 (0.290)	0.207 (0.719)
MULTIPLE	-0.101 (0.479)	-0.081 (0.290)	-0.100 (0.476)
PER CURIUM	-0.801** (2.163)	-	-0.873* (2.880)
Likelihood Ratio Statistic	11.093	6.468	10.976 ⁺⁺⁺
McFadden Psuedo R ²	0.029	0.017	0.028
Number of Observations	297	297	297

Note:

* z statistic is significant at 1 per cent

** z statistic is significant at 5 per cent

+++ Likelihood ratio test statistic is significant at 10 per cent

Figures in round parenthesis are z statistics. The likelihood ratio statistic follows a chi-square distribution with 7 degrees of freedom (column I) and 6 degrees of freedom (columns II and III). The critical values of the chi-square distribution at 5 per cent are 14.1 and 12.6 respectively.

TABLE 5
OLS ESTIMATES OF FACTORS EXPLAINING CITATION PATTERNS IN
THE NEW ZEALAND COURT OF APPEAL
DEPENDENT VARIABLE IS CORE CITATIONS

Variables	Linear			Log-linear		
	I	II	III	IV	V.	VI
Constant	3.842* (4.032)	3.790* (4.739)	3.207* (6.058)	1.026* (6.423)	1.005* (7.656)	0.875* (9.726)
AMICAE	0.179 (0.129)	0.175 (0.127)	0.173 (0.126)	0.184 (0.791)	0.183 (0.788)	0.186 (0.801)
CURIAE	-0.591 (0.341)	-0.609 (0.354)	-0.706 (0.410)	-0.001 (0.004)	-0.009 (0.975)	-0.029 (0.098)
APPEAL	-0.746 (1.197)	-0.751 (1.209)	-0.717 (1.153)	-0.088 (0.841)	-0.089 (0.858)	-0.079 (0.0759)
DIFFER	-0.139 (0.100)	-	0.509 (0.453)	-0.051 (0.231)	-	0.101 (0.573)
DISSENT	1.448** (2.013)	1.444** (2.014)	1.340*** (1.897)	0.435* (3.695)	0.434* (3.696)	0.406* (3.527)
LIBERTY	-0.302 (0.666)	-0.301 (0.668)	-0.320 (0.708)	-0.079 (1.099)	-0.078 (1.099)	-0.080 (1.123)
MULTIPLE	-0.768 (0.801)	-0.712 (0.917)	-	-0.184 (1.147)	-0.161 (1.264)	-
PER CURIUM	1.026	1.199	1.091	2.59 ^{††}	3.027 [†]	2.801 ^{††}
F-statistic	0.001	0.004	0.002	0.043	0.047	0.042
Adjusted R ²	0.002 [1, 290]	0.002 [1, 290]	0.194 [1, 290]	0.929 [1, 240]	0.932 [1, 240]	0.921 [1, 240]
RESET (2)	0.431 [2, 289]	0.432 [2, 289]	0.417 [2, 289]	2.088 [2, 239]	1.962 [2, 239]	2.110 [2, 239]
RESET (3)	0.501 [3, 288]	0.514 [3, 288]	0.294 [3, 288]	1.829 [3, 238]	1.970 [3, 238]	1.750 [3, 238]
RESET (4)	4.913	4.973	4.270	20.022	16.714	10.508
White's Heteroskedasticity Test	297	297	297	247	247	247
Number of Observations						

Note:

- * t-statistics are significant at 1 per cent
- ** t-statistics are significant at 5 per cent
- *** t-statistics are significant at 10 per cent
- † F statistic is significant at 1 per cent
- †† F statistic is significant at 5 per cent

Figures in round parenthesis are student t statistics. Figures in square parenthesis below RESET tests are degrees of freedom. The RESET test shows no specification error in any of the specifications: At the 5 per cent level, the critical values for the F-statistic at (1, >200) is 3.84; at (2, >200) is 3.00; at (3, >200) is 2.6. White's heteroskedasticity test follows a chi-square distribution with 20 degrees of freedom (columns II-III and V-VI) and 25 degrees of freedom (columns I and IV). The critical values of the chi-square distribution for 20 degrees of freedom and 25 degrees of freedom at 5 per cent are 31.4 and 37.7 respectively.

TABLE 6
LOGIT ESTIMATES OF FACTORS EXPLAINING PATTERNS IN CORE
CITATIONS THE NEW ZEALAND COURT OF APPEAL

Variables	I	II	III
Constant	-0.062 (0.161)	-0.915* (3.846)	-0.060 (0.181)
AMICAE CURIAE	-0.029 (0.047)	-0.039 (0.063)	-0.029 (0.046)
APPEAL	-0.105 (0.127)	-0.288 (0.352)	-0.104 (0.127)
DIFFER	-0.277 (1.023)	-0.226 (0.850)	-0.277 (1.025)
DISSENT	0.006 (0.011)	0.871** (1.944)	-
LIBERTY	1.137* (3.799)	0.948* (3.334)	1.137* (3.806)
MULTIPLE	-0.398 (1.392)	-0.415 (1.469)	-0.398 (1.392)
PER CURIUM	-1.068* (2.747)	-	-1.071* (3.317)
Likelihood Ratio Statistic	27.457 ⁺	20.130 ⁺	27.457 ⁺
McFadden Psuedo R ²	0.075	0.055	0.075
Number of Observations	297	297	297

Note:

- * z statistic is significant at 1 per cent
- ** z statistic is significant at 5 per cent
- + Likelihood ratio test statistic is significant at 1 per cent.

Figures in round parenthesis are z statistics. The likelihood ratio statistic follows a chi-square distribution with 7 degrees of freedom (column I) and 6 degrees of freedom (columns II and III). The critical values of the chi-square distribution at 5 per cent are 14.1 and 12.6 respectively.

ENDNOTES

¹ For example, see M. Feeley "Two Models of the Criminal Justice System: An Organizational Perspective" (1973) 7 *Law and Society Review* 407-426; J. Eisenstein and H. Jacob, *Felony Justice: An Organizational Analysis of Criminal Courts* (Boston, Little Brown, 1977); H. Jacob, "Courts as Organizations" in K. O. Boyum and L. Mather (eds) *Empirical Theories About Courts* (New York, Longman, 1983).

² Jacob, *ibid*; P. Harris, "Difficult Cases and the Display of Authority" (1985) 1, *Journal of Law, Economics and Organization* 209-221.

³ C. McEwen and R. Maiman, "In Search of Legitimacy: Toward an Empirical Analysis" (1986) 8 *Law and Policy* 257-273; M. Topf, "Communicating Legitimacy in the U.S. Supreme Court Opinions" (1992) 12 *Language and Communication* 17-29.

⁴ See B. Atkins, "A Cross-national Perspective on the Structuring of Trial Court Outputs: The Case of the English Court of Appeal" in J. Schmidhauser (ed) *Comparative Judicial Systems: Challenging the Frontiers in Conceptual and Empirical Analysis* (London, Butterworths, 1987); B. Atkins, "Interventions and Power in Judicial Hierarchies: Appellate Courts in England and Wales" (1990) 24 *Law and Society Review* 71-102; B. Atkins, "Party Capability Theory as an Explanation for Intervention Behaviour in the English Court of Appeal" (1991) 35 *American Journal of Political Science* 881-903; L. Baum, "Review Article: Research on the English Judicial Process" (1977) 7 *British Journal of Political Science* 511-527.

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⁸ Harris *supra* note 2.

⁹ Feldman and March *supra* note 7, 177-178

¹⁰ *Ibid*, 183

¹¹ Harris, *supra* note 2, 210.

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¹³ L. Friedman, R. Kagan, B. Cartwright and S. Wheeler "State Supreme Courts: A Century of Style" (1981) 33 *Stanford Law Review* 773-818, 793

¹⁴ R. Posner, *The Problems of Jurisprudence* (Cambridge Mass.: Harvard University Press, 1990)

¹⁵ M. Shapiro, "The Giving Reasons Requirement" [1992] *University of Chicago Law Forum* 179-220.

¹⁶ A. Denning, *Freedom Under the Law* (London: Stevens, 1949).

¹⁷ P. McCormick, "The Evolution of Coordinate Precedential Authority in Canada: Interprovincial Citations of Judicial Authority, 1922-92" (1994) 32 *Osgoode Hall Law Journal* 271-294.

¹⁸ Harris, *supra* note 2, 210.

¹⁹ For example, see J. Doyle, "Judicial Law-Making: Is Honesty the Best Answer?" (1995) 17 *Adelaide Law Review* 161-212; M. Kirby "Judicial Activism" (1997) 27 *University of Western Australia Law Review* 1-20.

²⁰ Lord Reid, "The Judge as Law Maker" (1972) 12 *Journal of the Public Society of Teachers of Law* 22

²¹ For example see I.L.M. Richardson, "The Role of Judges as Policy Makers" (1985) 15 *Victoria University of Wellington Law Review* 46-52; R. Cooke, "The New Zealand National Legal Identity" (1987) 3 *Canterbury Law Review* 171-183; E. Thomas, "Fairness and Certainty in Adjudication: Formalism versus Substantialism" (1999) 9 *Otago Law Review* 459-488.

²² R. Best "Conditional Leave to Appeal to the Privy Council" [1998] *New Zealand Law Journal* 439-442, 439.

²³ See Best, *ibid*.

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²⁵ McCormick, *supra* note 17, 277.

²⁶ Harris, *supra* note 2, 213.

²⁷ *Rich v Christchurch Girls' High School Board of Governors (No2)* [1974] 1 NZLR 21 (CA)

²⁸ Best, *supra* note 22.

²⁹ Johnson examines the influence of case complexity, defined as the number of legal issues in the case, on the opinion writing of the US Supreme Court during the first five terms that Rehnquist was chief justice. He presents evidence to suggest that the number of dissenting and concurring opinions on the US Supreme Court during that period was positively related to the complexity of the case – see S. Johnson, "The Influence of Complexity on the Opinion Writing of the Rehnquist Court" (1999) 25 *Ohio Northern University Law Review* 45-63.

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³² J.H. Merryman, "Toward a Theory of Citations: An Empirical Study of the Citation Practice of the California Supreme Court in 1950, 1960 and 1970" (1970) 50 *Southern California Law Review* 381-428, 407.

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³⁹ H. White, "A Heteroskedastic-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity" (1980) 48 *Econometrica* 817-838.

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