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Kenneth BENOIT

Singapore Management University, [kbenoit@smu.edu.sg](mailto:kbenoit@smu.edu.sg)

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#### Citation

BENOIT, Kenneth.(2006). Duverger's Law and the study of electoral systems. *French Politics*, 4, 69-83.

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# Duverger's Law and the Study of Electoral Systems

Kenneth Benoit

Department of Political Science, Trinity College, University of Dublin, Dublin, Ireland.  
E-mail: kbenoit@ted.ie

Since its first publication in 1951, Duverger's Political Parties has influenced an entire branch of political science devoted to the study of the political consequences of electoral laws. This essay examines the two propositions known as Duverger's law and Duverger's hypothesis, both concerned with how electoral institutions shape party systems. First explaining the propositions and their context, the essay examines their influence on political science, and concludes by assessing where future research in the area might be best concentrated.

*French Politics* (2006) 4, 69–83. doi:10.1057/palgrave.fp.8200092

**Keywords:** electoral systems; Duverger's law; party systems; electoral studies

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'A law is valuable not because it is law, but because there is right in it' — Henry Ward Beecher.

'Laws are like cobwebs, which may catch small flies but which let wasps and hornets break through' — Jonathan Swift.

## Duverger's Law

Among students of electoral systems, there is no better-known, more investigated, nor widely cited proposition than the relationship between plurality electoral laws and two-party systems known as Duverger's Law. Since its publication more than a half-century ago in *Political Parties* (1951), hundreds of articles, books, and papers have been written to elaborate the workings of Duverger's propositions. This growing literature has produced numerous empirical studies to explain how electoral systems and changes in electoral rules influence the number of political parties which compete for and win office. A parallel effort among formal theorists has led to many insightful works attempting to derive these empirical regularities from first principles, and otherwise to explore further the relationship between electoral rules and the number of political parties. The literature on formal and comparative electoral systems research is far too vast to review here, and indeed has been



assessed thoroughly elsewhere (e.g. Shugart, 2005). Rather, the goal of this essay is rather to examine the legacy bequeathed by Duverger to the field of electoral studies in terms of the influence of Duverger's basic ideas, to trace where research into these ideas has led, and briefly to argue where future research in these areas ought to be concentrated.

Duverger's comparative survey of party systems investigated the sources of *dualism*, or the concentration of political party activity in two main parties. National factors explain a great deal, concluded Duverger, but two-party systems are invariably associated with a particular type of institutional arrangement: the single-member district, plurality electoral system. 'Dualist countries use the simple-majority vote and simple-majority vote countries are dualist' (1959, 217). Elevating this claim to nomological status, Duverger set out his 'law' in a passage that has been cited countless times in the decades that followed:

*The simple-majority single-ballot system favours the two-party system. Of all the hypotheses that have been defined in this book, this approaches the most nearly perhaps to a true sociological law (Duverger, 1959, 217, emphasis in original).*

As a corollary, Duverger also stipulated a second proposition, that proportional representation (PR) electoral systems were a driving force behind the multi-party systems in many such countries he examined. Although he did not claim the proposition about PR to be a 'law', Duverger stated that PR *favours* multi-partism, as does the majority system with a second-round runoff format (Duverger, 1959, 239). This pair of propositions came to form the focus for the development of an entire subfield on the political consequences of electoral laws, aimed at linking the form of electoral institutions to variations in the size and concentrations of party systems. The former proposition, linking two-party to single-member district plurality electoral systems, came to be known as *Duverger's law*, mainly because Duverger himself had termed this relationship a law. The second proposition, stating that under proportional systems there is a tendency towards multipartism, came to be known as *Duverger's hypothesis*. Together this pair of statements bearing Duverger's name became the focus of an entire subfield of political science, with its own journals, own conferences, and dedicated sections in professional associations, and producing an enormous body of scholarly literature.

The declaration of the 'law' that simple plurality electoral systems resulted in the two-party system by Duverger also provoked numerous challengers aiming to disprove Duverger's propositions. In fact, many observers were quick to point out that Duverger was hardly the first to have discovered the association in Duverger's Law. Grumm (1958) recalled that Key (1952) had advanced an almost identical argument, asserting that:



in a single-member district only two parties can contend for electoral victory with any hope of success; a third party is doomed to perpetual defeat... That prospect tends to drive their members to one or other of the two parties. The single-member district thus molds parties into the bipartisan pattern (Key, 1952, 224–225).

Indeed, similar arguments had been made by Hermens (1941); Finer (1949), and Friedrich (1950), who had commented on how small parties were aided by PR and hindered by single-member district plurality rules. In the deepest investigation of the precursors to Duverger's statements, Riker (1982) traced back early formulations to late nineteenth century thinkers such as Thomas Hare, John Stuart Mill, Henry Droop, and Ramsay MacDonald, and later to American political scientists A. Lawrence Lowell, Arthur Holcombe, and Carl Friedrich.

Despite the fact that scholarly acceptance of both Duverger's law and hypotheses was widespread by the time he formulated them (Riker, 1982), it is nonetheless Duverger with whom they are associated by electoral systems scholars. There seem to be three main reasons for this. First, although Duverger was not the first to discover the relationship stated in his law, Duverger was the first scholar to claim it to be a law — a guaranteed method in any scholarly literature of attracting attention, acclaim, and controversy. Hence Duverger's scholarly legacy with regard to electoral systems, wryly notes Riker, derives from 'a trait of character as much as a scientific breakthrough' (Riker, 1982, 754). In political science, in fact, in only one other area has an empirical regularity been called to my knowledge (or nearly called) a 'law': the *democratic peace* proposition that democracies do not go to war with one another.<sup>1</sup> (Not surprisingly, the democratic peace has become a similar high-growth subfield of scholarly attention and controversy.)

A second contribution of Duverger's formulation of his law and hypothesis was to provide a far more comprehensive and extensive analysis of the relationship of electoral institutions and party systems than any previous attempt had done. Duverger collected and analyzed a large amount of comparative evidence to support his law and hypothesis, and furthermore did so in the context of a comprehensive study of political *parties* — and not, as it seems to be sometimes assumed by contemporary students of electoral systems, in a study primarily about electoral systems. Subsequent works heavily influenced by Duverger's analysis of electoral laws — such as Duncan Rae's (1967) seminal work, Taagepera and Shugart (1989); Lijphart (1994), and Cox (1997) — all focus primarily on electoral systems, aimed at readers primarily interested in electoral systems. Hence *Political Parties* — the single greatest cult classic book among students of electoral systems — was a study first and foremost about political parties and party systems, not electoral systems. Yet,



it was perhaps precisely because the work spoke with such authority on political party systems — the outcomes that electoral systems produce, according to Duverger — that the work became so influential in laying the seeds for the subfield known as electoral studies.

A final contribution of Duverger's formulation of his law and hypothesis was the detailed explanation not just of the outcomes which electoral institutions produced but also of the *process* by which they influenced political parties in bringing about these outcomes. Offering numerous examples, Duverger's systematic and detailed account of the process whereby the law and hypothesis operated went considerably farther than any previous examination of the causal mechanism by which electoral systems shape party systems. The next section examines these Duvergerian effects in more depth.

### Effects and Equilibriums

Duverger was concerned with processes he termed *polarization* and *depolarization*. Polarization occurs in the simple-majority, single-member district system as the rules produce disproportional outcomes by rewarding larger parties seat shares greater than their vote shares, and conversely punishing smaller parties with seat shares less than their vote shares. Depolarization is the opposite process, where under PR electoral rules, voters sincerely favoring small parties are able to support those parties, knowing that even small parties may win seats, and consequently small parties are encouraged to form. Citing the example of the Liberal party in Belgium before the adoption of PR, Duverger argued that polarization and underrepresentation under the single-member district system nearly drove the Liberal Party to extinction, until depolarization saved it following the introduction of PR in 1900 (1959, 246–249).

Duverger's notion of polarization was the driving force behind his law that single-member district plurality electoral rules produced two-party systems. A key aspect of Duverger's characterization of polarization was his delineation of the process into 'two forces working together: a *mechanical* and a *psychological* factor' (Duverger, 1959, 224). The mechanical effect of electoral systems describes how the electoral rules constrain the manner in which votes are converted into seats, while the psychological factor deals with the shaping of voter (and party) responses in anticipation of the electoral law's mechanical constraints. The explicit division of the process of polarization into these two effects marks Duverger's most important theoretical contribution to the study of the political consequences of electoral laws, and influenced several generations of scholarship on the topic. Contemporary studies of the mechanical effect consider the effect on the number of parties *winning* seats of electoral rules generally — but typically represented by district magnitude — as the key explanatory variable. Research into the psychological effect, on the



other hand, focuses attention on the role of electoral rules in shaping the number of parties *contesting* seats, as well as the way that votes for these parties are cast, often controlling for such factors as social cleavages (Ordeshook and Shvetsova, 1994), issue dimensions, and the character and timing of presidential elections (Amorim-Neto and Cox, 1997).

### **Mechanical effects**

The mechanical effect of electoral systems operates on parties through the direct application of electoral rules to convert votes into seats. In the mapping of vote shares to seat shares, some parties — almost always the largest ones — will be ‘over-represented,’ receiving a greater proportion of seats than votes. Because this mapping is a zero-sum process, over-representation of large parties must create ‘under-representation’ of the smaller parties. While a basic understanding of this process had existed for a long time, for instance in the literature on the ‘cube law’ characterizing the degree of over-representation, Duverger was explicit in separating the mechanical process from the psychological effect, as well as separating his law and hypothesis. Subsequent decades of research into the effects of electoral systems, however, often blurred both distinctions. It is now quite standard in the literature to view electoral rules as constraining the number of parties through the *interplay* of mechanical and psychological effects. It is also common to characterize electoral systems not according to single-member district plurality *vs* PR, but on a scale between these extremes. Describing a general continuum that is now quite standard, for instance, Sartori (1968) contrasted *strong* electoral systems that reduce the number of parties through strategic voting and coalition formation by elites, with *weak* electoral systems that fail to encourage these reductive activities and hence give rise to numerous parties (Cox, 1997, 11).

Contemporary electoral systems research has tended to generalize the mechanical effect to mean the influence on the effective number of parties<sup>2</sup> of district magnitude in particular, considered by many to be ‘the decisive factor’ (Taagepera and Shugart, 1989, 112; see also Rae, 1971; Gallagher, 1991, 50; Lijphart, 1994; Cox, 1997). The type of electoral formula also figures in the equation (Benoit, 2001), although ‘if one had to give a single major factor [that] determines the number of parties...it would have to be the district magnitude’, according to Taagepera and Shugart (1993, 455). As a result of the focus on district magnitude, researchers since Duverger have attempted to isolate and to estimate its causal influence on the effective number of parties. By linking a single feature of electoral systems (such as district size) to the number of effective parties, empirical researchers have thus collapsed Duverger’s law and hypothesis into the influence of a single parameter. Higher district magnitudes result in greater numbers of parties, and vice versa, with the extreme of



single-member districts resulting in a two-party system. This relationship has been generalized by Cox (1997) into an ' $M + 1$  rule' stating that the maximum number of viable candidates is determined by district magnitude ( $M$ ) plus one. Cox applied this generalized rule to both mechanical and psychological effects under PR, formalizing and testing empirically propositions made earlier by Leys (1959) and Sartori (1968).

### Psychological effects

Duverger's psychological effect comes from the reactions of political actors to the expected consequences of the operation of electoral rules. The psychological effect is driven by the anticipations, both by elites and voters, of the workings of the mechanical factor, anticipations which then shape both groups' consequent behavior (Blais and Carty, 1991, 92). Under electoral rule arrangements that give small or even third-place parties little chance of winning seats, voters will eschew supporting these parties for fear of wasting their votes on sure losers. Political elites and party leaders will also recognize the futility of competing under certain arrangements, and will hence be deterred from entry, or motivated to form coalitions with more viable prospects. The tendency, following the adaptation to Duvergerian psychological effects, is for electoral systems to act as systems of exchange that produce equilibrium numbers of parties (Cox, 1997, 6–8). In terminology that is now standard, Palfrey (1989) called *Duvergerian equilibria* the polarization to two candidates caused by voters strategically deserting all third and higher-ranked candidates, under the situation where even given sincere voting, it is clear that the third-place candidate would lose.

Despite Duverger's clear distinction of the psychological from the mechanical factor, empirical research since Duverger has not always followed the distinction. Part of the confusion seems to stem from the dependency of the former effect on the on the latter. Because the psychological effect arises from political anticipations concerning the mechanical effect, it is impossible to witness the operation of the mechanical effect without also considering the context of the psychological factor. In a world of Duvergerian equilibrium, where  $M + 1$  parties compete because only  $M + 1$  parties are viable, we would expect to see an alignment of the psychological effect to incentives exerted by the mechanical. When party systems are new, however, information about party support or the precise operation of electoral rules may be poor, hindering the operation of the psychological effect (Benoit, 2002). It may also be the case that in countries where electoral laws may be easily changed, the psychological incentives they exert on parties may be dampened (Cox, 1997, 18; see also Benoit, 2004). In any case, the consequence for considering the mechanical effects — and by implication many of the 'exceptions' to Duverger's Law



discussed below — is that different mechanical tendencies may be observed when elections are challenged by more or fewer parties than Duvergerian equilibrium would suggest. As a very simple illustration, even the most proportional PR system would be seen mechanically to produce a two-party system if only two parties contested elections — yet the observation of this outcome would hardly provide a true characterization of the mechanical factor in this context. A more sophisticated example can be found in what Palfrey (1989) terms a *non-Duvergerian equilibrium*, arising from the situation in plurality systems in which two or more candidates are so closely tied for second place that voters cannot decide which candidate to strategically desert, and hence producing not two but three candidates (Cox, 1997, 72). There is thus an endogeneity between the mechanical and psychological factors, namely that the outputs generated from electoral mechanics depend on inputs conditioned by the operation, proper or not, of the psychological factor. Indeed, since our expectation is that the two effects combine to produce an equilibrium number of parties, we should hardly expect otherwise. It should pose a problem for empirical research, then, when comparative studies fail to account for the endogeneity between the mechanical and psychological factors.

A second source of confusion surrounding the relationship of the psychological effect to the mechanical arises from differences in the types of causation exerted by each effect. Mechanical effects are supposed to be just that: 'mechanical, in the sense of accounting not for political issues, personalities, or culture but only for the limits imposed on such features by institutional structures' (Taagepera and Shugart, 1993, 456). Electoral systems operate mechanically, in other words, as deterministic machines that transform inputs into outputs. Although mechanical effects are seldom measured or even conceptualized in this fashion, they should be non-stochastic functions, in the sense that they should produce the same distribution of seats every time, given the same distribution of votes. Yet not a few comparative, empirical studies have attempted to estimate the mechanical effect as if it were stochastic. In practice, of course, comparative studies of electoral systems always measure electoral systems with error, whether because electoral rules are simplified into a few parameters (e.g. district magnitude or 'effective threshold' — see Lijphart, 1994) or because they consist of a collection of district-based elections observed at an aggregated (national) level. In addition, because of the endogeneity of the vote distributions produced by the psychological factor which is driven the mechanical effect itself, vote inputs are not controlled and exogenous in empirical settings. The result is that mechanical effects are measured as if they were non-mechanical. The psychological factor, on the other hand, should be expected to operate in a stochastic fashion, since there are a variety of reasons why parties may not perceive or choose to follow the polarizing or depolarizing incentives exerted by electoral rules, as well as why





such parties might in fact receive voter support despite the fact that they are supposed to be deterred from doing so. The more glaring examples of incongruencies between Duvergerian incentives and party system practice, in fact, have formed a focus of controversy in discussion of Duverger's law.

### **Upholding the Law**

Not a few minor tempests have stormed and spent themselves concerning exceptions to Duverger's law. Two well-known exceptions concern Canada and India, both employing single-member district plurality electoral systems but both supporting more than two parties. Early reactions to Duverger pointed to exceptions as a means of rejecting the 'law', on the basis that it was being clearly broken in some cases (e.g. Grumm, 1958). Even for scholars clearly sympathetic to Duverger's approach, exceptionalism to the law posed problems to its original formulation. Conducting the most systematic review (up to his time) of evidence for and against Duverger's law, Rae (1971) found that Canada offered regular exceptions, producing elections where a third party received more than 10% of the votes. Rae suggested a revision to Duverger's law, asserting that 'plurality formulae are always associated with two-party competition except where strong local minority parties exist' (Rae, 1971, 95). Subsequent attempts to 'amend' the laws have tended to do so by offering similar qualifications of conditions, or by weakening the categorical language suggesting universal applicability. Sartori (1968, 64) suggested, for instance, to replace the law by 'a tendency law' stating that 'plurality formulas facilitate a two-party format and, conversely, obstruct multipartism.'

Most students of electoral systems would now consider such attempts to rescue Duverger's law as reflecting a misplaced characterization of institutions as deterministic, and hence statements about the effects of institutions on political outcomes as deterministic. Despite the law-like character of the propositions formulated by Duverger, it is now standard in the study of electoral institutions to treat institutional characteristics as producing tendencies in party systems that are probabilistic, not deterministic in nature. Duverger himself claimed in a 1986 essay that he had not intended for his 'law' to have the deterministic significance later attributed to it (Duverger, 1986). Viewed in this light, exceptionalism caused by multipartism in a plurality context, or (virtual) two-party systems in PR contexts (such as Austria), are less problematic since probabilistic 'laws' are not expected to cover every case perfectly. In effect then, 'Duverger's law' has been downgraded to the associative status originally accorded to his hypothesis, yet retains the label of 'law' mainly through force of habit.

At the same time as the nomological stature of Duverger's law has been gradually relaxed, exceptionalism has also been explained by pointing to a



wider variety of variables than Duverger originally considered. In *Les Partis Politiques* Duverger had acknowledged the considerable influence of national factors in explaining the number of parties, but pointed to electoral laws as the underlying common factor — in the case of two-party systems, the single most important factor. If Duverger's boldness in asserting this relationship to be a law plays a large part in the memorial debt of subsequent scholarship, the controversy it stirred within more traditional sociological circles also helped focus attention on his propositions. The stance taken by Duverger had represented a strong institutionalist position in the long-standing debate between the 'institutional determinist' and 'sociological' schools over the determinants of party systems (for discussion see Amorim-Neto and Cox, 1997; Cox, 1997). Contemporary approaches to the sociological influences on party systems acknowledge the strong influence of social factors, without abandoning the focus on institutional effects. Social structures such as electoral systems, ethnic heterogeneity, and social cleavages partly determine the number of parties that form to contest elections, yet these parties and their potential supporters are still conditioned psychologically by the anticipated operation of electoral systems (Benoit, 2002). Accordingly, studies of Duvergerian effects at both the cross-national and national level tend to control for the influence of social factors. For instance, the Indian 'exception' to Duverger's Law (as a simple-majority single-member district system) is explained by the existence of deep social cleavages generating nearly four effective parties in equilibrium rather than two (Chibber and Kollman, 1998). Social divisions are often reinforced by federal institutions, permitting multipartism or even different party systems to exist at subnational levels — an explanation applied to Duvergerian exceptionalism in both India and Canada (Gaines, 1999).

I have focused thus far on empirical attempts to study Duverger's propositions, but the well-developed theoretical and formal literature devoted to Duvergerian effects also deserves mention. Well-known works in this field include Palfrey (1989), Feddersen (1992), Fey (1997), and Morelli (2004).

### **Duverger's Law Post-Duverger**

It has been argued that Duverger's law and hypothesis have driven mainstream research the field of electoral studies, including case studies, macro-comparative theory, and formal theory. Beyond testing, extending, or proving Duverger's formulations, however, new directions in the the study of Duvergerian effects broadly construed has been taking place on several fronts. These subfields have been inspired by Duverger's original study yet go beyond it in several important ways. In this last section, I review these directions.



## Electoral systems as outcomes

Electoral systems shape political parties, but what shapes electoral systems? Despite a widely acknowledge deficit of attention to the origins of electoral systems, there is still no substantial body of theoretically driven, comparative work to explain why one electoral system is chosen over another (Shugart, 2005, 51). The overwhelming focus of scholarly attention is still on the adaptation of parties and candidates *to* electoral institutions than to the way that electoral institutions themselves are adapted *by* political parties. In reality, however, political experience clearly demonstrates that while actors do maximize their goals by adapting their strategies to institutions, they also adapt by changing the institutional setting that transforms their strategies into outcomes (see Benoit, 2004 for a more comprehensive review). Numerous case studies have documented this process in individual country settings, but macro-comparative approaches are scarce (an exception is Boix, 1999).

Duverger was certainly not unaware of the problem of endogenous electoral system origins. Electoral systems, he wrote, 'are strange devices — simultaneously cameras and projectors. They register images which they have partly created themselves' (Duverger, 1984, 34). Yet, Duverger's original strong institutional determinist stance had an enormous influence on the subsequent focus on electoral systems as independent variables. Some dissenters reversed the relationship, such as Lipson (1964) who re-examined many of the cases originally studied by Duverger and concluded that party politics or political traditions drove the electoral arrangements and not vice versa (see also Grumm, 1958, 375). Stein Rokkan, in his examination of the introduction of PR in continental Europe, also explained electoral systems as outcomes attributed to the extension of the franchise and the desire by established groups to protect their position while simultaneously granting a measure of representation to previously excluded groups (see Lijphart, 1992). The consequences have direct implications for our ability to make statements about the political consequences of electoral laws through comparative observation, since electoral systems may be driven by, rather than drive, the polarizing pressures described by Duverger.

It is unfair to place the blame for the relative neglect of electoral system origins entirely at Duverger's feet, however; much the problem undoubtedly lies in the nature of the subject matter itself. Electoral system consequences are simply much better suited to theory development and testing than are electoral system origins, events which happen rarely and often under idiosyncratic conditions, although recent works such as Colomer (2004) contain a wealth of valuable data on electoral system changes. Furthermore, to study them requires detailed contextual knowledge, often involving the reconstruction of actor beliefs and preferences. Recent promising gains notwithstanding, the



relative lack of understanding of the link between electoral laws as causes and as effects stands as a barrier to further gains in the wider study of electoral systems. This lacuna and the opportunity of addressing it represent one of the single most important challenges for post-Duvergerian research in the field of electoral systems.

### **Mixed electoral systems**

Another area of extension of Duverger's study into new territory concerns the growing research into the politics of *mixed* electoral systems — electoral systems which combine both plurality and proportional elements. Mixed-member systems typically involve electing part of a legislature through single-member districts, and another part through PR from party lists. As the popularity of this system has led to a comparatively recent 'wave' in the adoption of mixed-member rules, research into these systems has become increasingly common (see Shugart and Wattenberg, 2001). Whereas formerly the German case offered the possibility to observe mixed-member systems, following changes in the 1990s it is now possible to study such systems in Russia, Japan, Italy, New Zealand, Lithuania, Hungary, Bolivia, Mexico, and Venezuela. Mixed-member systems offer the possibility for controlled experiments, wherein identical party systems operate in different electoral rule contexts. Taking the field further, however, research has also examined the degree to which electoral system incentives in one tier 'contaminate' those in the other tiers (Moser and Scheiner, 2004; Ferrara *et al.*, 2005), complicating insights from potential Duvergerian experiments. The popularity of mixed-member systems shows no sign of abating, however, and neither does scholarly interest in these systems. As experience into such electoral systems accumulates, interesting insights stand to be gained from the study of mixed-member systems, insights that both extend and go beyond Duverger's propositions.

### **Intra-party effects**

Duverger's *Political Parties* devoted a huge amount of material to the study of the politics, structure, and leadership *inside* parties — yet his analysis of electoral system consequences was almost exclusively concerned with politics *between* parties. Reflecting this emphasis, studies of electoral systems have focused more on inter- than intra-party politics. Thriving literatures nonetheless exist devoted to the ramifications of electoral institutions for intra-party politics, chief among them their effects on minorities, including ethnic and religious minorities; their relationship to the representation of women; and what Matthew Shugart terms the effect of electoral systems on the 'personal



vote' (Shugart, 2005, 45). The personal vote refers to the part of the candidate's vote that results from his or her personal characteristics, rather than from his or her party label. Different electoral systems shape the incentive to cultivate a personal vote in different ways, producing substantive implications for such issues as representation, party discipline, and constituency service (Carey and Shugart, 1995). Studies of the effects of electoral systems on related intra-party themes extend to such areas as committee assignments, policy formulation (especially trade policy), coalition formation and durability, and corruption. The biggest challenge in making more gains in theoretically driven comparative research into the intra-party effects of electoral systems is the difficulty of obtaining reliable data on intra-party quantities, such as candidates' personal attributes and candidate list rankings within parties.

### **Concluding Remarks**

In an influential article published more than 20 years ago, Riker (1982) argued that Duverger's law and the research it has generated demonstrates that political science, as a branch of human study, can make positive progress towards cumulating knowledge on a research problem. Certainly, it is the case that from being called an 'underdeveloped' field (Lijphart, 1992), in the twenty years since Riker's essay there has been an explosion in electoral studies research, with many well-established scholars in political science who now define their main research area as the study of electoral systems. Progress in the study of the effects of electoral laws on party systems has even been such according to Matthew Shugart, that decades of successive research into the relationship between electoral system features and party systems — the central questions addressed by Duverger — have largely settled these core questions and incorporated the findings into mainstream political science (Shugart, 2005, 50–51). This is not to say that research related to Duverger's law and hypothesis does not continue, but rather that new research is now pushing the frontiers of previous work into new areas, some of which I have outlined above.

One development that has both accompanied and assisted the development of the field of electoral studies since Duverger has been the vast growth in the availability of data on elections and electoral systems. Seats and votes data essential to testing any theories about electoral systems are now more widely available, better organized, and more reliable than ever before. From being an area where only ambitious researchers with research budgets to assemble their own data sets would dare venture, electoral studies has become a field which we now encourage graduate students to explore precisely because data is so easily available. This represents a total reversal from the situation existing just 15 years before (as many who were graduate students at the time may remember!).



Progress in the field of electoral studies since Duverger has also been aided by history: Since the first edition of *Political Parties*, the number and variety of countries, democratic countries, and new electoral systems have blossomed. The expansion first of the number of countries as a result of decolonization, and later in the number of democracies as part of an unprecedented global surge in democracy, has created more and more diverse electoral systems that serve as a virtual social science laboratory for the study of electoral systems. The spread in adoption of mixed-member rules in the 1990s, for instance, certainly spurred the development of research into these kinds of electoral system arrangements. Another development in the world of electoral systems has been the increasing cross-over between the academic study of these systems and the decision-making which has led to electoral system choices. It is now common for academic experts on electoral systems to advise institutional decision-makers, and for decision-makers to be aware of the likely consequences — Duvergerian and otherwise — of the institutional choices they are considering. And this is perhaps the ultimate memorial to the contributions of Duverger's law to the study of electoral systems: that researchers have not only established widely accepted propositions concerning the relationship between electoral laws and political party systems, but also have been able to make this working knowledge relevant in the practical design of democratic political institutions.

## Notes

- 1 This absence of war between democracies, according to Jack Levy, 'comes as close as anything we have to an empirical law in international relations' (1988, 662). Bruce Russett claims that 'this is perhaps the strongest non-trivial or non-tautological statement that can be made about international relations' (1990, 111).
- 2 The effective number of parties weights parties by their seat (or vote) share according to the formula  $1/\sum s_i$ , where  $s_i$  is the seat proportion of the  $i$ th party. This measure is typically used instead of the total number of parties to assess electoral law effects on party systems, since the total number may be unduly inflated by tiny parties that receive few votes and very few or no seats.

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