2

Duverger's propositions

Students of politics have asked how electoral laws affect the formation and survival of political parties since mass elections first became common in the late nineteenth and early twentieth century. Henry Droop, an English advocate of proportional representation (and inventor of the Droop quota), noted as early as 1869 that plurality elections promote what later scholars have called "strategic" or "tactical" voting:[1]

> As success depends upon obtaining a majority of the aggregate votes of all the electors, an election is usually reduced to a contest between the two most popular candidates.... Even if other candidates go to the poll, the electors usually find out that their votes will be thrown away, unless given in favour of one or other of the parties between whom the election really lies (quoted in Riker 1982:756).

Droop was also surely aware of the plurality system's tendency to underrepresent minority parties – a topic generally discussed today under the rubric of "disproportionality," "big-party bias," or the "mechanical effect." In any event, by 1881 he had enunciated a version of what is now called Duverger's Law:

> the only explanation which seems to me to account for [the two-party systems in the United States, United Kingdom, etc.] is that the two opposing parties into which we find politicians divided in each of these countries have been formed and are kept together by majority [what we now call plurality] voting (quoted in Riker 1982:756–7).

Duverger himself originally thought in terms of three propositions, one for each of the main electoral systems in use when he wrote (Duverger 1986:70). Eventually, however, he settled on just two, which

[1]Duverger referred to the same phenomenon under the rubric of the "psychological factor," by which he meant the desire of voters to avoid casting a "wasted vote" for a candidate with no hope of winning.

Riker (1982) has dubbed Duverger's Law and Duverger's Hypothesis. Duverger's Law states that "the simple-majority single-ballot system [i.e., simple plurality rule] favors the two-party system" (Duverger 1954:217). Duverger's Hypothesis states that "the simple-majority system with second ballot and proportional representation favors multipartyism" (Duverger 1954:239).

The rest of this chapter considers Duverger's propositions at length, proceeding as follows. Section 2.1 reviews some well-known criticisms of Duverger's work advanced by those who take a sociological approach to the study of party systems. Since much of the rest of the book is devoted to studying the political consequences of electoral laws, it is important first to address the arguments of those who doubt that these consequences are particularly important. Section 2.2 then clarifies the particular version of Duverger's propositions upon which the first part of the book will focus – a version framed at the district level in terms of the effective number of candidates, rather than at the national level in terms of the actual number of parties. Section 2.3 reviews the standard logic underlying Duverger's propositions, having to do with strategic voting decisions in the mass electorate, on the one hand, and strategic coalition decisions in the elite strata, on the other. Section 2.4 offers a preliminary sketch of when and how strategic voting appears in systems other than simple plurality, with particular attention to how this might place an upper bound on the number of viable candidates. Section 2.5 concludes with an outline of Part II of the book.

2.1 SOCIOLOGICAL CRITIQUES OF DUVERGER'S PROPOSITIONS

Scholarly reaction to Duverger's work has been highly polarized. Two particularly sharp disagreements – one over his research's scientific status, another over its causal validity – illustrate this polarization clearly.

As regards the scientific status of Duverger's propositions, opinion could not be more divided. On the one hand, some question whether Duverger's generalizations serve "any useful function at all" (Jesse 1990:62; cf. Wildavsky 1959:318) or dismiss them on fundamental grounds: the impossibility of summing up complex and reciprocal social interactions in scientific laws (Lavau 1953; Mackenzie 1957; Bogdanor 1983:261). Sartori (1994:30) views this camp as predominant, noting that "the prevailing wisdom of the profession still is ... that comparatively valid generalizations are impossible to achieve." On the other hand, Riker has devoted an entire essay to the thesis that research into Duverger's Law exemplifies scientific progress (Riker 1982). And Sartori

(1994:27), while disagreeing with Riker's specific formulations, asserts that the arguments of those skeptical of the possibility of comparative generalization "are demonstrably wrong."

Scholarly opinion regarding the causal validity of Duverger's propositions is similarly divided. Two main controversies have arisen. First, some argue that Duverger simply mistook the direction of causality. In this view, party systems determine electoral systems, rather than the other way around (Grumm 1958; Eckstein 1963:253; Lipson 1964; Särlvik 1983:123; Fukui 1988:121). The central body of evidence supporting this view has been contested by Duverger and Riker, but a comparison of Riker's (1982) and Bogdanor's (1983) views of the *same* evidence reveals the two sides far from agreeing.

A second (and closely related) challenge to the causal validity of Duverger's work holds that he focused on an unimportant variable. In this view, party systems are determined primarily by the number and type of cleavages in society, with electoral structure playing either an inconsequential, or at least a distinctly secondary and variable, role (Campbell 1958:30-32; Grumm 1958; Lipson 1959; Meisel 1963; Lipson 1964; Lipset and Rokkan 1967; Rokkan 1970; Blondel 1972:237; Nohlen 1981; Beyme 1985; Franco 1986:82–3; Solari 1986:120–21). Lavau (1953:46), for example, in perhaps the earliest retort of this kind to Duverger's theses, opined that "the method of voting remains a rather small consideration among the complex and infinitely diverse factors that, combined differently in each national society ... condition political life." In the purer forms of this school of thought, long-term multiparty systems such as those found in Europe are to be explained by the existence of many strong social cleavages – cleavages which would find expression in the party system even under single-member plurality rules. Conversely, long-term two-party systems such as that in the United States are to be explained either by inherent social dualism (e.g., Charlesworth 1948; Key 1964b:229ff) or by the relative mildness of their social and ideological cleavages (e.g., Lipson 1953; Hartz 1955). Set against the "social determinist" school, especially its purer variants, are a number of scholars who, while admitting (to varying degrees) the importance of social structure, still view electoral structure as having a consistently important independent impact (e.g., Riker 1982; Duverger 1986:71; Taagepera and Shugart 1989:53; Sartori 1994).

The reason that Duverger's Law has stuck in the craw of so many political scientists of a sociological bent is that it seems to set up some sort of "institutional determinism," wherein markedly different social cleavage structures are hypothetically all mashed into one final outcome (a "two-party system") merely upon application of a particular set of

electoral laws. Social cleavages thus seem to play no *systematic* role in determining the equilibrium number of parties. They do play a residual role – Duverger states his law as a tendency precisely to allow for the possibility that particularly strong social cleavages might retard the reduction in number of parties that single-member plurality systems promote. But this puts the cart before the horse in the eyes of those who see social cleavages as exogenous and strongly determinative, electoral laws as endogenous and (at best) marginally determinative.

It is no less true that the stronger versions of "social determinism" stick in the craw of institutionalists, especially those with roots in economic rather than sociological theory. A belief that socially defined groups will always be able to organize in the political arena seems to ignore the problem of collective action (Olson 1965), and a belief that they will always organize *as parties* seems to say that "going it alone" is always a better strategy than forging coalitions. Moreover, the number of social cleavages seems large relative to the number of parties in *any* society, so how is one to tell which cleavages are big enough to be party-defining and which are not? Is it obvious, for example, that the cleavage between Finnish and Swedish people in Finland (which gives rise to a separate party) is more intense than that between European-Americans and African-Americans in the United States (which does not)? From an institutionalist perspective, politicians can take socially defined groups and combine or recombine them in many ways for political purposes (Schattschneider 1960). A given set of social cleavages does not imply a unique set of politically activated cleavages, and hence does not imply a unique party system.

Duverger's propositions are obviously controversial and the institutional determinist and social determinist positions are obviously far apart. Yet, despite the wide divergence of views articulated in the literature, the battle between proponents (institutionalists of various stripes) and detractors (mostly political sociologists) has been anything but sustained and focused. In part this has to do with the very size of the disagreement. To the extent that one side of a debate (e.g., Riker 1982) takes social "science" as clearly possible and desirable, while at least some on the other side (e.g., Lavau 1953; Mackenzie 1957) take it as problematic and perhaps not even desirable, it is difficult to find common ground.

I shall not have much to say here about whether scientific study of comparative politics is possible. I certainly hope that it is, but a convincing defense of this hope against more pessimistic views is well beyond the scope of the present work.

One need not take the argument over Duverger's Law all the way to first principles in the philosophy of science, however. The sociological

critiques carry weight even if one is committed to a scientific approach to comparative politics. Accordingly, I address these criticisms – concerning the endogeneity of electoral structure and its relative unimportance when compared to social cleavages – before proceeding further. I shall in particular be interested in the degree to which the two views can be reconciled or synthesized.

The endogeneity of electoral structure

Some reconciliation between institutionalist and sociological perspectives is certainly possible in the controversy over whether electoral systems cause party systems or vice versa. Indeed, there is a close symbiotic relationship between these two claims. On the one hand, if electoral laws do indeed affect the ability of political parties to survive as independent organizations, as Duverger's propositions imply, then presumably parties will seek to manipulate those laws to their own advantage when they can. Assuming Duverger is right, in other words, leads naturally to the conclusion that the party system (and the calculations of partisan benefit rattling around within it) may affect the electoral system. On the other hand, the claim that parties tinker with the electoral mechanism in order to ensure their survival, or increase their vote totals, presupposes a belief on their part in electoral engineering. There would be no point in seeking a new electoral system if electoral systems did not matter. Thus, the early sociological attack, if it is to hang together logically, must take for granted that electoral laws confer partisan advantages, or at least that parties believe they do, in order to conclude that parties will attempt to change them.

It is true that the endogeneity of electoral laws can take some of the causal steam out of electoral structure. For, if electoral systems can be changed relatively easily, then one might expect frequent changes for short-term partisan gain, as in Greece, France, or Turkey. Frequent changes – or the anticipation of change – might then undercut the long-term causal effects of electoral law. Consider, for example, a small party facing a single-member plurality system. If such a party believes the electoral system will survive unaltered for a long time, it faces substantial incentives to join or form a coalition capable of securing a plurality. If, on the other hand, the party believes the electoral system can be easily changed, it may simply seek to bring about such change. The strength of the incentive to coalesce produced by an electoral system depends, in other words, on how long that system is expected to last.

This is a good point. It may be what the sociological critics had in mind. But it is not the death knell of the causal validity of Duverger's Law.

I think the main lesson to be learned from the endogeneity of electoral structure is that in some systems, such as Greece and the emerging democracies of Eastern Europe, the perceived changeability of the electoral code may dampen the incentive effects of electoral law. There is some reason to think these cases may not "fit" quite as well with the older, more established electoral systems. Perhaps one could even get some mileage out of these cases in measuring how much perceived changeability affects the reductive strength of a system.[2]

But in fact electoral laws are not everywhere and always easily changed. It is the winners under the current electoral system who (if party discipline holds) must find it in their interest to change the electoral system.[3] Thus – unless there is substantial uncertainty against which even the winners wish to insure themselves;[4] or the winners think the electoral situation has changed, so that the old electoral rules will no longer serve them well, and they can agree on how to manipulate the rules for short-term gain (e.g., France in 1951 and 1986); or the electoral system has come to symbolize an unpopular political regime, so that politicians face intense public pressure to rewrite the code (e.g., the recent reforms in Japan, Italy, and Venezuela) – electoral systems tend to be, and to be perceived as, rather long-lived. As Lijphart (1994:52) puts it, "one of the best-known generalizations about electoral systems is that they tend to be very stable and to resist change." When electoral systems *are* (per-

[2]Even in cases where the electoral code is seen as protean, there may be ways to decide whether electoral structure pushes the party system or vice versa. The problem is a garden-variety one of simultaneous or reciprocal causation. It does indeed make it impossible to infer from a simple bivariate correlation something solid about causation. But there are in principle solutions to such problems. One is to fashion a simultaneous equations model, in which both the electoral system and the number of parties appear as endogenous variables. No one in the literature has attempted to do this, and I do not propose to do so here; but it is not obviously an impossible route to take, merely a very difficult one! Were one to take this route, it would be important to find some variables that predict the adoption of electoral systems that are not endogenous to social structure. In this regard, the findings of Blais and Massicotte (N.d.) are interesting: In a study of the determinants of electoral law in some 166 countries, two of the strongest predictors of a country having a single-member plurality system that they find are "being a former British colony" and "size in km^2." The first is arguably exogenous to indigenous social structure. The second may be a weak proxy for social diversity but in that case the correlation runs in the opposite direction from that which would be predicted from a social determinist perspective.

[3]In some cases, electoral laws can be changed by executive decree (as in Russia 1993) or popular initiative (as in the recent repeal of the senate electoral law in Italy), in which case the "winners" may not control the process of electoral change.

[4]I am thinking here of the uncertainty that European politicians faced upon the introduction of universal suffrage near the turn of the century, an uncertainty that seems to have played an important role in the introduction of PR. Cf. Carstairs (1980); Noiret (1990).

ceived as) hard-to-change and long-lived, however, the incentives they set in train are no longer discounted by the probability that the rules will change.

Social cleavages and the party system

Consider next the importance of social structure. As Taagepera and Grofman (1985:343) note, "it is much harder to find testable propositions" regarding social structure in the literature. Nonetheless, they believe that some in the literature can be taken "as standing for the proposition that 'the more axes of cleavage there are within a society, the greater will be the number of political parties.'" Nohlen (1993:27), for example, offers a thesis in which the number of social cleavages affects not just the number of political parties but also (following Grumm 1958) the nature of the electoral system a given country will possess:

> the greater the social fragmentation, the more probable is the adoption of a proportional [electoral] system and also the rise of a multiparty system. The greater the social homogeneity, the more probable is the adoption of the simple plurality system; but, also, the more probable is the rise of a two-party system ... or of a limited party pluralism.

Although a bit fuzzy, the idea that social cleavages condition the party system has considerable force and has spawned an entire literature in opposition to, or at least in tension with, the institutionalist literature. The prospects for a limited reconciliation of the institutionalist and sociological perspectives are, however, reasonably good. Two points in particular are worth noting at the outset.

First, to assert that social structure matters to the formation and competition of parties – which no one denies, when the point is stated in such a broad fashion – does not imply that electoral structures do not matter. To make this latter point, one has to adopt a rather extreme monocausalist perspective according to which the underlying cleavage structure of a society is so much more important than the details of electoral law that basically the same party system would arise regardless of the electoral system employed (cf. Cairns 1968:78). Does anyone believe that the United States would remain a two-party system, even if it adopted the Israeli electoral system?

Second, to assert that electoral structure affects party competition in important and systematic ways does not imply that social structure is irrelevant. It might appear that this is exactly what Duverger's Law does imply – bipartism in any society merely upon application of single-member districts – but in fact that overstates Duverger's proposition and the institu-

tionalist development of it, where there has been an increasing appreciation of the interaction effects between social and electoral structure.

In the next two subsections, I expand on the two points just made. I first offer some systematic evidence that electoral structure matters, even controlling for social structure. Then I discuss how social and electoral structures might interact in the process of party formation and maintenance.

The importance of electoral institutions. In this section, I compare the number of parties competing (and winning) in elections to the upper and lower houses of those countries that possess elective upper chambers. If social cleavages drive the number of parties competing, with little strategic adjustment to electoral rules, then one should find essentially the same number of parties competing for votes in both house and senate elections, regardless of the electoral systems used in the two bodies. If, on the other hand, groups do adapt to the electoral environment, then there should be predictable differences in the number and effective number of competitors.

Comparing the number of parties in house and senate elections would seem to be a natural method of controlling for social diversity, as the society in which the elections are held is the same. Nonetheless, as far as I know no one has bothered actually to compute the numbers and make the comparisons. I do so by identifying all democratic countries that possessed elective upper chambers circa 1990, analyzing their electoral systems to arrive at an *a priori* expectation regarding the number of parties that should compete in house and senate elections, and then testing these expectations against the empirical record.

Circa 1990 there were 16 democratic countries that possessed elective upper chambers, consisting of 7 Latin American, 5 European, 2 Anglophone, and 2 Asian cases. In Table 2.1, I list these countries, along with a brief characterization of the electoral systems used in each house.[5] The middle column in the table indicates which system should have the larger number (or effective number) of parties. For example, in Australia the house and senate are both elected under single transferable vote (STV) rules but the senate districts all return more than one member, while the house districts are all single-member. Thus, one expects a greater number of parties competing in the Australian senate than in the Australian house.

Before proceeding, I should note four caveats about the predictions listed in Table 2.1. First, Uruguay is too complicated to yield a clear prediction – at least I have not been able to come to a clear *a priori* expectation. Second, the predictions I do make are merely ordinal: They state which chamber should have more parties, without stating how large a

[5]Fuller descriptions of the lower house electoral systems in most of these countries are given in Chapter 3.

difference in number there should be. In some cases, the difference would seem to be fairly large (e.g., Australia) while in others it would seem to be quite small (e.g., Belgium). Third, four of the countries listed employ a fused vote for legislative races. That is, voters have only one vote to cast for a slate that includes both house and senate (and sometimes presidential) candidates. For this reason, the prediction for these systems is necessarily different when it comes to votes as opposed to seats. The parties competing for house and senate seats, and the votes they receive, must be equal in fused vote systems; it is only in the translation of votes into seats that the two chambers can differ. Fourth, one would hardly expect that the party systems for house and senate elections would fully adapt to their respective electoral systems, in splendid isolation from one another. If a party can run and elect candidates under the more permissive system, it may decide to run candidates in the other system as well – not to win seats, perhaps, but to keep its electoral organization in good trim, to establish its blackmail potential, or for other reasons. In this case, the party system in each chamber should be influenced by that of the other, in such a way as to lessen observed differences.

Bearing these caveats in mind, Table 2.2 displays the (effective) number of parties winning seats. As can be seen, of the 15 countries with clear predictions, 14 (93%) show the expected difference in the effective number of parliamentary parties,[6] while 11 (73%) show the expected difference in the scalar number of parliamentary parties.[7] For countries with fused votes, the differences are purely mechanical effects. For the other countries, the difference presumably understates the mechanical effect due to strategic adaptation.

Table 2.3 displays the (effective) number of parties winning votes. Of the 12 countries with predictions, 11 (92%) show the expected difference in the effective number of elective parties, while 10 (83%) show the expected difference in the scalar number of elective parties. If one removes the fused vote systems from the analysis, since they must trivially agree with the prediction of equal numbers, there are 8 countries with predictions, of which 7 (88%) and 6 (75%), respectively, are in conformity with the prediction.

As noted above, not all of the comparisons contrived in Tables 2.2 and 2.3 are such that one expects a large difference in the number of parties; sometimes the electoral systems for house and senate are very simi-

[6]The only exception, the United States, is trivial in that the electoral systems for the house and senate are identical, the only difference (and the reason for the prediction) being that the house has a larger number of districts than the senate.

[7]The exceptions in terms of scalar number of parties are Belgium, Colombia, Poland, and Spain. Belgium is not much of an exception in that the house and senate have very similar electoral systems and are equal in the number of parties competing.

Table 2.1. Comparing the electoral rules for house and senate elections in sixteen countries, circa 1990

Country	*Electoral rules, house*	*Prediction*	*Electoral rules, senate*
Australia	STV with $M = 1$	<	STV with $M > 1$
Belgium	See Chapter 3.	>	Same as lower house system, with lower district magnitudes. Indirectly elected members excluded.
Bolivia[a]	PR with median magnitude = 13.	>	List plurality with $M = 3$.
Brazil	Open list PR with median magnitude = 11.	>	Plurality rule in 1- and 2-seat districts
Chile	Open list PR with $M =$ 2. 60 electoral districts.	>	Open list PR with M = 2. 19 electoral districts.
Colombia	PR with median magnitude = 6.	<	PR with $M = 100$.
Dom. Republic[a]	PR with median magnitude = 2.	>	Plurality rule with $M = 1$.
Italy	See Chapter 3.	>	Similar to house system, with smaller district magnitudes.
Japan	SNTV with $M =$ 3, 4, or 5.	<	76 seats elected by SNTV with M between 1 and 4. 50 seats elected by PR with $M = 50$.
Philippines	Plurality rule with $M = 1$.	>	Nationwide plurality election of 12 senators. Each voter has 12 votes.
Poland	PR with median magnitude = 10.	>	Mostly 2-seat districts, voters having two votes each (non-cumulative), and the top two vote-getting candidates winning the seats.
Spain	PR with median magnitude = 5.	>	4-seat districts in which each voter casts 3 votes. Some indirectly elected members.
Switzerland	PR with median magnitude = 6.	>	Plurality rule with $M =$ 1 or 2.

Table 2.1. (cont.)

Country	*Electoral rules, house*	*Prediction*	*Electoral rules, senate*
U.S.	Plurality rule with $M = 1$.	>	Plurality rule with $M = 1$.
Uruguay[a]	See Chapter 3.	?	PR with $M = 30$.
Venezuela[a]	PR with district magnitudes varying according to population; up to 5 additional seats awarded on the basis of national vote totals.	>	Same system with lower district magnitudes ($M = 2$), fewer additional seats (3), and fewer total members to be elected.

[a]These countries have fused votes.

lar. This is the case, for example, in Belgium. Thus, although Belgium is technically an exception in terms both of the effective and the scalar number of elective parties, it is not much of an exception. On the other hand, not much difference should be expected in the United States or Chile, either, and so the "successes" there ought to be somewhat discounted too. On the whole, the pattern of evidence is consistent with the notion that different electoral systems do produce different party systems, even when used in the same society at the same time.

The interaction of social and electoral structure. Duverger took social structure more or less as a residual error, something that might perturb a party system away from its central tendency defined by electoral law. Later scholars, however, have considered the possibility that cleavage and electoral structures may interact. For example, two recent papers that take this tack – Kim and Ohn (1992) and Ordeshook and Shvetsova (1994) – both come to the conclusion that Duverger's institutionalist claims are conditioned by the nature of social cleavages.[8]

Kim and Ohn elaborate a point made previously by Sartori (1968), Rae (1971), and Riker (1982) in order to accommodate the Canadian

[8]Another paper that plies the same waters is Taagepera and Grofman (1985). They argue that Duverger's propositions work only if there is one dominant social cleavage, and even then they offer some emendations. The cleavages about which they talk, however, are really *politicized* cleavages, not all cleavages in the society, whether brought into political significance or not. Cf. Ordeshook and Shvetsova (1994:107).

Table 2.2. Comparing the number and effective number of parties winning seats in the house and senate of sixteen countries, circa 1990

Country	*ENPP – house*	*NPP – house*	*Pre-diction*	*ENPP – senate*	*NPP – senate*	*Year of house/ senate election*
Australia	2.03	3	<	2.57	5	1993
Belgium	8.28	13	>	8.24	13	1991
Bolivia[a]	3.92	5	>	3.43	4	1989
Brazil	8.6	19	>	5.5	6	1990
Chile	5.06	10	>	4.68	7	1989
Colombia	2.18	6	<	2.22	5	1990
Dom. Republic[a]	3.06	4	>	2.23	3	1990
Italy	5.60	10	>	3.88	5	1992
Japan	2.46	7	<	3.66	8	1990/ 1989
Philippines	3.46	7	>	2.42	5	1992
Poland	3.88	7	>	3.56	12	1993
Spain	2.67	11	>	2.58	14	1989
Switzerland	6.52	14	>	3.44	7	1987
U.S.	1.94	3	>	1.96	2	1992
Uruguay[a]	3.30	4	?	3.24	4	1989
Venezuela[a]	4.65	8	>	3.98	5	1988

Main Sources: Central Intelligence Agency 1994; Nohlen 1993; Mackie and Rose 1991. Different sources handle independent and minor party candidates or lists differently (e.g., one might group them all in a single 'other' category, another might separate 'independents' from 'minor parties'). These differences mean that one cannot use the data in the table to make confident comparisons between countries. I have tried, however, to ensure that the data for the house and senate from a given country are handled comparably, to ensure that that comparison is meaningful.

[a]These countries have fused votes.

exception to Duverger's Law (Canada has simple plurality elections yet a long-standing multiparty system). They point out that one of the suppositions underlying Duverger's Law – that small parties will be underrepresented under plurality rule in single-member districts – depends for its validity on the geographic distribution of voters. In particular, if a third party's supporters are concentrated in a particular region of the country, then they may be able to compete successfully as one of the two main parties locally, even while remaining a third party nationally. Thus, Duverger's Law holds only if the social cleavage structure is not charac-

Table 2.3. Comparing the number and effective number of parties winning votes in the house and senate races of sixteen countries, circa 1990

Country	*ENPV – house*	*NPV – house*	*Prediction*	*ENPV – senate*	*NPV – senate*	*Year of house/ senate election*
Australia	2.47	4	<	2.61	6	1993
Belgium	9.75	13	>	9.79	13	1991
Bolivia[a]	5.01	10	=	5.01	10	1989
Brazil	9.7	34	>			1990
Chile	7.22	19	>	5.43	17	1989
Colombia	2.22	8	<	2.26	7	1990
Dom. Republic[a]	3.92	4	=	3.92	4	1990
Italy	6.18	10	>	4.10	5	1992
Japan	2.91	8	<	4.47	10	1990/1989
Philippines	3.32	5	>	2.05	4	1992
Poland			>			1993
Spain	4.37	9	>			1989
Switzerland	6.80	18	>			1987
U.S.	2.07	3	>	1.99	2	1992
Uruguay[a]	3.37	5	=	3.37	5	1989
Venezuela[a]	3.36	9	=	3.36	9	1988

Main Sources: See Table 2.2.

[a]These countries have fused votes and therefore the numbers for the house and senate are identical.

terized by geographically concentrated minorities who might form the basis of a successful, albeit localized, third party.

Ordeshook and Shvetsova (1994) reanalyze Lijphart's (1990) data with an eye to clarifying how social structure matters in determining the number of parties. They find that the number of parties in a country increases with the diversity of the social structure and with the proportionality of the electoral structure, but also that these effects interact. Increasing the proportionality of an electoral system in a homogeneous society does not proliferate parties, whereas it does in heterogeneous societies. Similarly, increasing the diversity of the social structure in a non-proportional electoral system does not proliferate parties, whereas it does in a proportional system.

If institutionalists have sometimes explored the importance of social cleavages, it is no less true that those with primary interests in political

sociology have also recognized some "institutional" constraints on the formation of parties. Meisel (1974) and Jaensch (1983, ch. 3), for example, are at pains to point out that not all social cleavages become politicized, and that even fewer become *particized* (i.e., made into important lines of partisan division). Both processes – politicization and particization – typically do not just happen; they require someone to push them along, someone with resources who can compete against other political entrepreneurs who may be attempting to prevent the politicization of that particular cleavage, or to activate others instead.

Taking both social cleavage structures and electoral structures into account, there are three key stages to consider when accounting for the level of vote or seat concentration observable in any particular polity. The first stage is the translation of social cleavages (here taken to be exogenous but obviously susceptible to political manipulation[9]) into partisan preferences. The second stage is the translation of partisan preferences into votes. The third stage is the translation of votes into seats.

In some institutionalist models, the first stage is not explored: There is an exogenously given number of parties with clear demarcating features (e.g., the position they adopt along an ideological dimension), so that voters' preferences over parties are easily deducible. No party ever fails to get votes because it is too poor to advertise its position; no would-be party ever fails to materialize because it does not have the organizational substrate (e.g., labor unions, churches) needed to launch a mass party. In an expanded view, of course, the creation of parties and the advertisement of their positions would be key points at which a reduction of the number of political players occurs. The multiplicity of possible or imaginable parties is reduced to an actual number of *launched* parties, then to a smaller number of *known* parties, even before the electorate produces an effective number of vote-getting parties, and the electoral mechanism produces an effective number of seat-winning parties.

The reduction of possible to launched parties depends on many things: the level of preexisting nonpolitical organization that can be turned to political advantage; monetary resources; media access; and so on. Thus, a religious cleavage with well-organized and well-financed churches on both sides (e.g., Evangelicals versus Pietists in the nineteenth-century United States) is more likely to be politically activated, other things equal, than a racial cleavage in which one side is poorly organized and poorly financed (e.g., whites versus Aborigines in Australia).

[9]Ethnic and linguistic identities can be manipulated. Laitin (1994), for example, gives an example of how British colonial policy gave tribal chieftans in Ghana an incentive to accentuate their linguistic differences.

Duverger's propositions

The reduction of launched parties to known parties depends primarily on media access and money. It is unlikely that Screaming Lord Such's party in England would have done much better had it been even more widely known than it was but in principle lack of exposure is a stumbling block for many minor parties. Whether this stumbling block can be overcome may depend partly on strategic decisions by potential contributors: If all of them seek to avoid wasting their contributions on hopeless (because unknown) parties, then the party will remain unknown (because poor), hence helpless.

The reduction of known parties to voted-for parties is the domain of strategic voting. Even if known, a party still has to be viable in order to attract votes.

Finally, the reduction of voted-for parties to seat-winning parties is typically a mechanical feature of the electoral system. The only substantial exceptions occur in systems in which votes are not pooled across all candidates from a given party, as in Taiwan or Colombia. In these systems, the distribution of a party's vote support across its candidates or lists materially affects its seat allocation (Cox and Shugart N.d.).

It is obvious that social cleavages matter. Institutionalists now have a small start toward specifying what kinds of social cleavages matter, and how, under different kinds of electoral systems. If this line of research is continued within the institutionalist paradigm, then institutionalists and political sociologists may have more to say to one another in future. In any event, I think that the interaction between electoral systems and social cleavages merits further research.

2.2 NARROWING THE FOCUS

Having convinced the reader, hopefully, that the sociological critiques of Duverger's propositions do not compel their abandonment, the next step is to clarify the version of these propositions upon which I shall focus in the first part of the book. There are by now a good many versions of Duverger's propositions in the literature and they differ consequentially along at least two dimensions: whether the dependent variable is defined at the national/system level or at the district level; and whether the dependent variable concerns entry deterrence, post-entry winnowing of the field of candidates, or both. I shall discuss these two distinctions in turn.

The national versus the district level

For Duverger, the dependent variable in his Law and Hypothesis was the number of "serious" parties (somehow defined) at the national level. Most political sociologists also take a national view, a fact which may

explain why many of them are underwhelmed by the evidence for Duverger's Law. For, if one looks only at the national level for evidence, one finds relatively few examples of electoral systems employing single-member districts and plurality rule. Ignoring small states (below 5,000,000 population), the list would as of 1992 include just seven democratic polities from Chapter 3's list of 77: Bangladesh, Canada, Nepal, New Zealand, the United Kingdom, the United States, and Zambia. To this list, one might add the Philippines and India (which fail to meet the criteria in 1992 but have substantial democratic experience). Of these nine, only the United States has recently had reasonably pure two-party electoral competition. Zambia is dominated by one party. The rest have multiparty electoral competition, and in most the "third" parties succeed in securing a significant presence in the legislature. Thus, by this accounting, there is no empirical regularity to explain.

In contrast to those who concentrate on the national level, there are also those who shift the focus of Duverger's Law to the district level. Duverger himself wrote that "the true effect of the simple-majority system is limited to *local* bi-partism," that is, "the creation of a two-party system inside *the individual constituency;* but the parties opposed may be different in different areas of the country" (Duverger 1955:223; italics added). Nonetheless, he attempted from that beginning to extend the argument to the national level, and of course stated his sociological laws at that level. Leys (1959) and Wildavsky (1959) were perhaps the first to question the validity of Duverger's extension, and to insist that his propositions operated only (in the case of Leys) or at best (in the case of Wildavsky) at the district level.

From a district-level perspective, Duverger's Law is supported every time one finds a district that is dominated by two parties. One can disaggregate even further and look not at a string of elections in a given district over time, and the pattern of party competition that characterizes that period, but instead at individual district elections. At this level of disaggregation (geographically to a single district, temporally to a single election), the relevant prediction is that the top two parties will together garner most of the votes in the election. The district-level evidence is not entirely unproblematic but nonetheless looks a good deal more impressive than does the national-level evidence.

In the first part of this book, I take a completely disaggregated view of electoral systems and their effects. That is, I focus on the processes whereby most district races end up with a limited number of viable candidates (or lists), rather than on the processes whereby polities end up with a limited number of viable parties. Connections between these two levels of analysis (e.g., how the strategies of national parties may perturb

district results from what they might be were districts somehow insulated from national forces, how district-level incentives percolate up to the national level, etc.) are considered later.

Pre-entry versus post-entry politics

In addition to focusing on the district rather than the nation, I shall also focus on post-entry rather than pre-entry politics. In the post-entry period, after some number of candidates has entered the fray, the central question concerns the processes that winnow the field out – strategic voting, strategic contributing, and so forth. In the pre-entry period, before candidacies have been announced, the central question concerns the processes that deter entry – the major parties' nomination procedures (which facilitate coordination on a single nominee), the anticipation of failure by third-party and independent candidates, and so forth. Another way to put the distinction is that in the pre-entry period one watches as an indefinitely large field of potential candidates is reduced to a definite field of actual candidates, while in the post-entry period one watches as an actual number of entering candidates is reduced to a smaller effective number of vote-getting candidates.

The effective number of candidates, due to Laakso and Taagepera (1979), is the reciprocal of the Hirschman-Herfindahl index widely used in the industrial organization literature to measure how concentrated sales in a given industry are. It is now the standard measure of how concentrated vote shares are in electoral contests.[10] If there are K actual candidates in a race, the maximum possible effective number of candidates is also K (a value attained when all K candidates garner a 1/K share of the votes). As votes concentrate on a smaller number of candidates, the effective number of parties falls below the actual number. If votes concentrate to the point that only two candidates get any, an extreme version of Duverger's prediction, then the effective number of parties will be bounded above by 2. If voters merely tend to concentrate on two candidates, then the effective number may be somewhat above 2.

2.3 THEORETICAL EXPLANATIONS OF DUVERGER'S PROPOSITIONS

Given our theoretical focus – upon single elections in particular districts, after the field of candidates has been established – the pertinent question

[10]If v_i is the vote share of the ith candidate, the effective number of candidates is $1/\Sigma v_i^2$.

for Duverger's Law is as follows. Why do voters in one-seat districts (in which each has a single vote to cast, the candidate with the most votes winning) tend to concentrate their suffrages on only two candidates?

One answer is strategic voting. Instrumentally rational voters eschew wasting their votes on hopeless candidacies, preferring instead to transfer their support to some candidate with a serious chance of winning. As long as everybody agrees on which are the hopeless candidacies, strategic voting will mean that votes concentrate on the serious candidates, of whom there will usually be just two in equilibrium (see Chapter 4).

Another whole set of answers can be generated by noting that *any* class of agents (not just voters but also opinion leaders, contributors, party officials, etc.) will tend to allocate whatever resources they control (not just votes but also endorsements, money, campaign appearances, etc.) to serious rather than to hopeless candidates. All that one needs for this conclusion is that the agents in question be instrumentally rational – that is, motivated primarily by a desire to affect the outcome. For then contributions to hopeless candidacies will be pointless, as they are unlikely to affect the outcome.[11]

Scholars disagree over which of these two causal mechanisms – strategic voting in the mass electorate or strategic contributing in the elite strata – is the more important. On the one hand, some argue that strategic voting is irrational, given the infinitesimal chance that a single vote will affect the outcome, and conclude that most of the action must be at the elite level (see Meehl 1977; Riker 1982:764). On the other hand, there is considerable evidence that voters do behave strategically, and at least one study (Gunther 1989) finds elites bungling their strategic role.

In my view, both kinds of resource concentration are important. Elites typically act first: Contributions and endorsements are sought before votes are. If elites coordinate fully, on just two candidates, then the voters are left with a binary choice and, accordingly, vote sincerely. If the elite strata fail to coordinate fully, then a multicandidate field will typically be further winnowed by strategic voting within the electorate (typically instigated by the prospective elite beneficiaries).

2.4 STRATEGIC VOTING AND THE NUMBER OF VIABLE COMPETITORS

Long ago Leys (1959:139) and Sartori (1968:278) argued that strategic voting should appear even under PR systems, to the extent that those sys-

[11]It is true that contributions large enough to single-handedly convert hopeless into serious candidacies may still be instrumentally rational; but few agents control such resources.

tems embodied significant departures from pure proportionality (due to small district magnitudes, high thresholds, or large premiums awarded to major parties). Leys put the matter as follows: "Although most writers seem to assume that [strategic voting] has no place in the analysis of any PR system, a weakened [form of strategic voting] may be highly plausible" (p. 139). Sartori advanced a very similar thesis, noting that "the influence of PR [through its encouragement of strategic voting] merely represents an enfeeblement of the same influence that is exerted by the plurality systems." Both authors thus placed single-member simple plurality systems and the various real-world PR systems on a continuum as regards their tendency to reduce the number of viable political parties below the theoretical benchmark number that would flourish under a purely proportional system (see also Rae 1971:141–43).

Part II of this book generalizes Leys' and Sartori's claim. Vote concentration due to the strategic diversion of resources away from hopeless candidates is not unique to single-member districts operating under Anglo-American rules. *Any* electoral system can be characterized by an equilibrium upper bound on the number of candidates (or party lists), such that if the actual number exceeds this upper bound there is a tendency for instrumentally rational voters to concentrate on a smaller number. In the remainder of this section, I shall informally sketch out the steps through which one must go in order to identify the equilibrium upper bound of candidates (lists) implied by strategic voting. Following chapters formalize the argument for a certain number of electoral systems.

The first step in identifying the equilibrium number of candidates (lists) for a particular electoral system is to ask how many candidates (or lists) one would expect to be seriously in the running for a seat (or seats). Given instrumentally rational voters, if a candidate (list) is *not* seriously in the running, then he (it) will lose support. Thus, whenever the number of candidates (lists) exceeds the number that can plausibly be seriously in the running for a seat, one expects some of the candidates (lists) to suffer from strategic desertion by their followers.

So how does one decide how many candidates (lists) can be "seriously in the running" in a given electoral system? The most obvious answer regarding candidates running in M-seat districts under plurality rule (top M finishers get seats) is $M + 1$. This answer is defended at length in Chapter 5, but to get a preliminary idea of why $M + 1$ might be the right answer, consider a race between $K > M$ candidates for $M = 5$ seats. Suppose first that the rules of election are those once employed in Japan: Each voter casts a single nontransferable vote, the five candidates with the most votes winning seats. There are two ways that a voter in such a system can "waste" her vote: She can vote for an almost-sure loser; or

she can vote for an almost-sure winner. Neither vote is likely to improve the outcome from what it would otherwise have been had the voter abstained. Thus, instrumentally rational voters will avoid both kinds of waste, sending their votes to the "marginal" candidates – those who have, relative to nonmarginal candidates, a large probability of being tied for *M*th, hence of being on the edge between winning and losing.

Imagine now that a random sample of voters is polled and it is found that the proportion of the electorate intending to vote for candidate j is π_j, where candidate labels are chosen so that $\pi_j \geq \pi_j{+}1$ for all $j < K$. If $\pi_{M+1} > \pi_{M+2}$, and the gap between $M + 1$ and $M + 2$ is large relative to the sampling error in the poll, then $M + 2$'s probability of being tied for *M*th is infinitesimal, relative to $M + 1$'s. Voters can quite confidently count $M + 2$ out (as, for that matter, can contributors, party leaders, and so forth). Any resources controlled by instrumental agents will therefore flow away from $M + 2$ and toward the marginal candidates (which set includes, in equilibrium, the top $M + 1$ candidates). Thus, to the extent that the gap between the first loser $(M + 1)$ and the second loser $(M + 2)$ is "noticeable," one expects voters (and other contributors) to concentrate their resources on the strongest $M + 1$ candidates.

Now suppose that the rules are changed to largest remainders with the Hagenbach-Bischoff quota ($Q = V/(M + 1)$, where V is the total number of votes cast for all lists). How many lists will be serious contenders? We can again identify the *candidates* in order of their chances at winning a seat and being marginal (tied for *M*th). For example, the lead candidate on a list for which the expected vote share exceeds the quota is likely to win, and becomes virtually certain to win as the sampling error in the poll declines. The third candidate on a list with expected share less than $2Q$ is virtually certain to lose (again, as the sampling error declines). And so forth.

Well-informed instrumental voters in this system will avoid voting for a list that has no chance at a seat. They will concentrate instead on lists in competition for the last-allocated remainder seat, where their votes are most likely to improve the outcome. This leads to a prediction of at most $M + 1$ serious lists.

All of these predictions about the equilibrium number of candidates and lists need to be hedged in various ways. Suffice it to say here that they all depend on two key theoretical assumptions – one an assumption about voters' motivations, one an assumption about voters' expectations. Although closely approximated in some empirical instances, enough to make the theory interesting, these assumptions are certainly not universal. Indeed, part of the value of the formal modeling to follow is that it identifies potentially measurable variables that should, in addition to electoral structure, affect the incidence of strategic voting. All this will be elaborated in the appropriate chapters.

2.5 OUTLINE OF PART II

Part II of the book, which commences with the next chapter, considers strategic voting in each of the three main electoral systems that Duverger originally studied, as well as in various systems that he did not study. Chapter 3 sets the stage for the analysis by discussing electoral systems in general, providing a snapshot of the full range of systems in use circa 1992 in democratic elections, and suggesting informally some of the ways in which different features of these systems facilitate strategic voting or (something which is more pertinent to later parts of the book) strategic entry and alliance formation. Chapters 4, 5, and 6 investigate strategic voting in single-member districts operating under several single-ballot voting procedures (4), multimember districts operating under various forms of proportional representation (5), and single-member districts operating under dual-ballot procedures (6). Each of the analytical chapters includes, in addition to comments on the formal model and associated equilibrium results, a review of relevant literature pertaining to the systems under discussion. Two of the chapters (4 and 5) present original empirical evidence as well.

When put together, the picture that emerges from Part II is very much in accord with the Leys-Sartori conjecture. There is a continuum of systems, ranging from those in which strategic voting imposes a constraining upper bound, to those in which it imposes a rarely-constraining or unconstraining upper bound, on the number of parties.

Part II closes with a discussion (in Chapter 7) of two themes that are largely ignored in the institutionalist view of electoral politics. First, I argue that a proper understanding of the institutionalist results implies that the number of candidates/lists that compete in a system will be an interactive product of both social diversity and the permissiveness of the electoral rules. This leads into the empirical analysis of Chapter 11. Second, I note that there are modalities of strategic voting that do not operate to the detriment of small or weak parties, and that some electoral systems promote these kinds of strategic voting rather than the classic "wasted vote" kind.