7

Some concluding comments on strategic voting

In the last three chapters, I have focused on the nature of strategic voting equilibria in the three electoral systems that featured in Duverger's original propositions: SMSP, single-tier PR, and majority runoff. The main conclusion has been that all three systems obey the $M + 1$ rule, according to which the number of viable candidates or lists in each system cannot exceed $M + 1$ (where M refers to the district magnitude for SMSP and PR, and to the number of first-round competitors who can advance to the second round for majority runoff). I have also considered three broad theoretical limits on the $M + 1$ result: First, if the electoral institutions do not correspond to one of those specified above, then nonstandard varieties of strategic voting may arise, that do not systematically concentrate the distribution of votes; second, even if one considers one of the electoral systems listed above, there are still a number of key assumptions about voters that must be met in order for strategic voting to have a strong effect; third, even if the electoral institutions are "right" and the voters obey all the model's assumptions, only an upper bound is imposed in Duvergerian equilibria. In this chapter, I consider the first and third of these hitherto subsidiary issues in greater detail. I make two main points. First, the fact that strategic voting only imposes an upper bound on the effective number of competitors, when it has any reductive impact at all, has some clear consequences for how we think about doing electoral research. Second, strategic voting under some systems has no general reductive impact.

7.1 STRATEGIC VOTING ONLY IMPOSES AN UPPER BOUND

I have already noted that the $M + 1$ rule only imposes an upper bound on the effective number of competitors that will appear in equilibrium. I shall now explore four issues related to this fact, pertaining to whether the upper bound is constraining or not, what factors might explain the equilibrium number of competitors when the upper bound is not constraining, the interaction of social and electoral structure, and electoral competition viewed as a coordination game.

Does the upper bound bind? One consequence is that adopting a more permissive system will not necessarily multiply the number of parties. If electoral system A imposes an upper bound U_A, and system B imposes a bound U_B, then one may say that A is stronger than B (or that B is more permissive than A) if $U_A < U_B$. But if country X changes from system A to system B the number of parties will increase only if the upper bound under system A really was consequential, in the sense that it was preventing the emergence or success of some would-be parties. If the "natural" number of parties in country X, defined in terms of its social cleavages or on some other grounds, falls below U_A, then increasing the permissiveness of the electoral system will have no effect. It is only if the natural number is above U_A that making the electoral system more permissive should matter.

There are two further consequences of the observations just made. First, they provide a *district-level* justification for those who argue that PR systems have no multiplying effects (e.g., Sartori 1994:47). Second, they suggest some caution in interpreting what are otherwise quite natural research designs. Consider, for example, Lijphart's (1994) magisterial examination of changes in post-war democratic electoral systems and the subsequent changes in number of parties. Often he found that increases in the permissiveness of an electoral system did not subsequently give rise to an increase in the number of parties. On a purely institutionalist account, this would count against the importance of electoral law. Taking account of the interaction between social and electoral structure, however, finding no increase in the number of parties after increasing the permissiveness of the electoral system counts as evidence against the importance of electoral structure only if one believes that the previous electoral system had impeded the exploitation of extant cleavages in the society, so that it was actually holding the number of parties below what it would be with a more permissive system. Absent such a belief, one would not expect a weakening of the electoral system to lead to increases in the number of parties, and so one would not count failure to observe such an increase as evidence of the unimportance of electoral laws in conditioning political life.[1] Similarly, finding that an increase in the strength of an electoral system does not pro-

[1]Another interesting study that is similar to Lijphart's, hence open to the criticism made in the text, is Shamir (1985).

duce a contraction in the party system is telling evidence only if the number of parties under the old system exceeds the "carrying capacity" of the new system.

Equilibration below the upper bound. Another point related to the fact that strategic voting only imposes an upper bound on the number of competitors can be developed as follows. Recall first that, in SNTV systems and in LRPR systems that are like SNTV, strategic voting phenomena seem to fade out rapidly for district magnitudes above 5. The main reason for this is that the larger the magnitude, the smaller are the vote percentages that separate winners from losers, hence the harder it is to be sure who is out of the running. Recall also that for PR systems generally, the effective number of lists falls well below the $M + 1$ upper bound, for M above 4. If one puts these two observations together, the conclusion seems to be that strategic voting does not explain much about the number of parties in districts of magnitude above about 5.

This observation suggests some redirection of the research agenda in electoral studies. Taagepera and Shugart's "generalized Duverger's law" – embodied in their equation $N_{eff} = 2.5 + 1.25 log_{10} M$ – may be an *empirical* generalization of Duverger's law/hypothesis, but it does not generalize his logic. Whatever it is that explains why so few lists appear in large-magnitude districts operating under PR, it is not systematic downward pressure derived from the fear of wasting votes. So, we should look elsewhere: to economies of scale in advertising, raising funds, securing portfolios, supplying policy benefits, and so on.

The interaction of social and electoral structure. A third point is that the logic of strategic voting, properly understood, suggests an interaction between social and electoral structure. In Chapter 2, I noted that some political sociologists seem to regard Duverger's Law as a species of institutional determinism, something to be rejected on the obvious grounds that social cleavages are key in understanding where parties come from and how many there will be. But the logic of strategic voting leads only to each system having a certain "carrying capacity." If the number of lists or candidates exceeds that carrying capacity, then one can expect strategic decisions by the voters to winnow the field. But exactly how many candidates or lists there will be is not determined: It just has to be below the upper bound. In systems with multimember districts, this leaves plenty of room for social diversity to determine the precise number of competitors. A homogeneous society may have only two parties even if the electoral system allows for more. A heterogeneous society with the same electoral system may hit up against the upper bound. Thus, if we adopt the simple notion that the more cleavages there are in a society, the more parties it will have, but modify it by appeal to the institutionally imposed upper bound articulated by the $M + 1$ rule, we should expect that the number of competitors, N, will be an *interactive* function of electoral and social structure: N will be low if either the electoral system is strong or social diversity is low; N will be high only if the electoral system is permissive and social diversity is high. I provide evidence that this is indeed the case in Chapter 11.

Elections as coordination games. A final point is that the logic of strategic voting suggests what characteristics successful players of the electoral game will possess. The simplest form of the institutionalist perspective – and here I step beyond the exclusive focus on voters that has characterized this part of the book and informally include elites as well – merely asserts that each electoral system faces social actors with a giant coordination game of a more or less constraining nature. In strong systems, the amount of coordination needed to guarantee a seat is rather large and the penalties for failure to coordinate are large. In less strong systems, both the amount of coordination needed and the penalties for failure are milder.

Who will be well-positioned to succeed in giant coordination games of the kind that strong electoral systems in particular pose? In order to answer this question, let us first consider a central feature of coordination games well known to game theorists: It helps to be able to make the first move, or to precommit to a particular move. Consider, for example, a SMSP contest in which two leftists contemplate entering against a single rightist. Either can defeat the rightist in a pairwise contest, but neither will win if both enter and stay in the race to the end. In this situation, if one of the leftists credibly commits to entering and staying in the race till the end, the other leftist's best move would be to stay out of the race, and the first leftist would therefore win the seat. If both leftists had the ability to make such commitments, then whichever of them succeeded in making the commitment first would win the election. So, being able publicly to commit to a future course of action and being able to move nimbly when the difficulty first becomes clear are both valuable in coordination problems.

What kinds of social groups possess these features? In the context of large-n coordination games – as for example the problem of strategic coordination among voters in a mass election – social groups that are organized, that have leaders who can speak for their interests in an authoritative and public fashion, and that are perceived as usually voting as a bloc are more likely to be able publicly to commit to future courses of action (and to move nimbly when the need arises). Such groups, of which ethnic, linguistic, or religious minorities might be leading examples, are more likely to be successful in steering the outcome of large coordination games toward their preferred equilibrium. They are therefore more likely to appear as the central social underpinnings of endogenously created factions, parties, or alliances than are less organized groups.

The argument just given is informal. But I think it is sufficient to suggest that the appropriate understanding of the logic of strategic voting does not deal out the social interests, it deals them in.

7.2 WHEN WILL STRATEGIC VOTING RESTRICT THE EFFECTIVE NUMBER OF PARTIES?

Thus far in this book we have encountered several electoral systems – SMSP, majority runoff, SNTV, and PR – in which strategic voting puts an upper bound of $M + 1$ on the effective number of competitors (candidates in the first three cases, lists in the last case). What do these voting procedures have in common? All of these systems give voters a single exclusive vote (recall that a vote is exclusive if for purposes of seat allocation it affects only the vote total of the list or candidate for whom it is cast). All are also first-place rewarding rather than last-place punishing systems. (First-place rewarding systems are those in which voters are able, via their ballot options, to make a sharp distinction in favor of their top-ranked alternative(s), without being able to distinguish very sharply between lower-ranked alternatives; last-place punishing systems are those in which voters are able to sharply discriminate against their least-favored alternative, but cannot distinguish much between higher-ranked alternatives.)[2] Do systems that have a reductive impact on the party system necessarily have a single exclusive vote? Are they necessarily first-place rewarding? Or is some other condition key to distinguishing between those systems that do and those that do not restrict the effective number of competitors?

I shall approach these questions by first considering single-vote systems in which the vote is not exclusive; then single-vote systems that are last-place punishing rather than first-place rewarding; then multiple-vote systems of various kinds.

Single nonexclusive vote systems

There are two main types of system that give voters a single nonexclusive candidate vote: the single transferable vote (STV) system used, for example, in Ireland and Malta; and the single pooling vote (SPV) used, for example, in Chile and Finland.

[2] A more complete definition of the notion of a "first-place rewarding" system is given, for the case of scoring rules, in Cox (1987c).

Strategic voting under STV can lead to a deconcentration of votes, as can be seen by recalling an example given in Chapter 4. In this example, there is one seat at stake and three candidates compete for it. If a voter's favorite candidate, while leading the polls and having enough votes to survive the first round, will lose in the second round against one prospective opponent, but win against the other, then it is optimal to rank the "beatable" opponent first and one's favorite second. But this entails redirecting votes from a vote-rich to a vote-poorer candidate, thereby deconcentrating the distribution of (first-preference) votes.

Suppose there were four candidates, instead of three, chasing after a single seat under STV rules. Could it ever be optimal to rank a clearly weakest candidate (in terms of expected first preferences) first? The answer, by analogy to the discussion in Chapter 6 of runoff elections, should be no. In the first round, one should be trying to set up the best possible second round. Voting for candidates who are expected to have too few first preferences to make it to the second round cannot affect who makes it to the second round, hence cannot affect the ultimate outcome. One might conjecture, then, that the alternative vote should be like a top-two runoff system, as regards strategic voting. In particular, the upper bound ought to be $M + 1$ in a pure model, with perhaps $M + 2$ in a bipolar system (see Chapter 6).

Strategic voting under SPV can also lead to a deconcentration of votes. Consider the Chilean example given in Section 5.3, in which a leftist and a rightist list, each with two candidates, chase after two seats. If neither list doubles the other's vote, and the two conservative candidates are expected to get about the same number of votes, then the leftist voters may be able to determine which of the two conservatives wins. If the leftist list's expected vote total exceeded the conservative list's, then this would entail a transfer of votes from a stronger list to a weaker, deconcentrating the distribution of votes across lists.

Could there be more than $M + 1$ lists under SPV? I would conjecture that there cannot be, again because voting for a list that has no hope of winning a seat cannot affect the outcome (in large electorates), hence cannot be something that a short-term instrumentally rational voter would do. So there ought to be an $M + 1$ rule for SPV, too. (It should be stressed that this rule applies to lists, not parties. The possibility of joint listing means that even if there are typically fewer than $M + 1$ lists, there may typically be more than $M + 1$ parties, as in Chile, for example).

If both STV and SPV obey the $M + 1$ rule, then it cannot be the exclusivity of the vote that is key to underpinning the emergence of this rule. What of the first-place rewarding nature of the systems considered thus far? Does that matter?

Last-place punishing systems

In last-place punishing systems, candidates' incentives are to avoid being ranked last, or low, in a voter's preference ordering, rather than to rank first or near the top. Consider the most extreme case, negative plurality voting. Under negative plurality voting, each voter casts a single vote for a candidate, and the candidate with the *fewest* votes wins. Equivalently, one can think of voters as casting negative votes (that add –1 to the voted-for candidate's vote total), with ordinary plurality rule deciding the winner.

In this system, a sincere vote would entail giving –1 to the candidate that the voter ranked last (hence giving 0 to all the rest of the candidates). Rational behavior under negative plurality, however, entails giving –1 to one's least-preferred *marginal* candidate. So the top two candidates should become the target of more negative votes, until their vote totals fall to near-equality with that of the third-place candidate.

An example may help to clarify matters. Suppose that three candidates, A, B, and C, compete for a single seat under negative plurality rules. Suppose also that half of the voters in this election rank A first and B second; while the other half rank B first and A second. Suppose finally that for both groups candidate C is not only third but a distant, repugnant third. In this example, sincere voting would mean that everyone gave –1 to the repugnant C, yielding a tie between candidates A and B, both of whom would get zero votes (C getting $-n$ votes, where n is the total number of voters). BAC voters could profit by diverting some of their negative votes from C to A, thereby electing B. ABC voters could similarly profit by giving B some negative votes, in order to elect A.

More generally, BAC voters could always profit by diverting their votes from C to A, if the current allocation of votes satisfied: $V_A \geq V_B > V_C$ but $V_B - V_C - 1 > V_A - V_B$. For then $V_B - V_C - 1$ of the BAC voters could divert their votes from C to A and change the outcome in B's favor. Similarly, ABC voters could always profit if $V_B \geq V_A > V_C$ but $V_A - V_C - 1 > V_B - V_A$. Thus, if there are any strong Nash equilibria in the model (i.e., situations in which no coalition of voters can make themselves better off by jointly changing their strategies), they necessarily entail that a substantial number of voters do not vote sincerely.

In fact, strong Nash equilibria do exist for this example. For example, any situation in which $V_A > V_C \geq V_B$ (and no voters employ dominated strategies) is a strong Nash equilibrium: The ABC voters get their first choice, while the BAC voters can only make matters worse for themselves by voting for A rather than C. Thus, strategic voting under negative plurality voting would lead, in this equilibrium outcome, to a candidate who is ranked last by all voters finishing at least in a tie for second.[3]

What is interesting about this example is that votes are substantially deconcentrated in the strategic voting equilibrium vis-à-vis the sincere voting outcome. Voters are willing to offer the repugnant candidate C tacit support, by giving him a zero instead of a –1, as long as they believe that this will not in fact elect C. The advantage of giving this tacit support is that the voters are then free to cast their –1 vote for the candidate who is most threatening to their favorite. To put it another way, because the voting system essentially forces voters to give two 0's and one –1, it is sometimes useful to give one of the high votes to a hopeless candidate, in order to avoid giving it to a viable candidate that one wishes to defeat. Is this "turkey-raising" a general feature of some class of voting systems?

Multiple-vote systems

In this section, I shall consider two classes of voting procedure that give voters many votes but require that the voter use all these votes. The first kind of voting procedure is one that was once frequently employed in U.S. local elections and still is employed in Mauritian national elections. In this system, voters are given as many votes to cast as there are seats to be awarded in the district. In Mauritius, for example, this means voters have three votes to cast. They can cast these votes for any three candidates of their choosing, but may neither cumulate (vote more than once for a given candidate) nor partially abstain (fail to cast one of their votes).[4] Thus, if there are only four candidates, the Mauritian system is equivalent to negative plurality voting: Negative plurality would force voters to give -1 to one candidate and 0 to three; the Mauritian system would force voters to give 0 to one candidate and 1 to three; so any distinction that can be made under one system can be made under the other as well.

Even if there are more than four candidates, the possibility for turkey-raising arises in Mauritius. Suppose that a voter wishes to elect candidate A, who faces stiff competition from B, C, and D. If the voter votes for A and two of the three others, then she helps some of those most likely to prevent A from winning. What to do? Such a voter may wish to park her extra votes on two hopeless candidates, say E and F, who are far out of the running and will pose no threat to A. Thus, the Mauritian system

[3] A similar result could be obtained for an incomplete information model, in which voters respond to pivot probabilities.

[4] If voters can partially abstain, then the system is similar to that used throughout most of the nineteenth century in Great Britain, except that the district magnitude then was typically two rather than three. On strategic voting under this system, see Cox (1984).

gives voters an incentive in some circumstances to vote for submarginal candidates. Because of this feature, it is not clear that strategic voting in this system would impose any kind of upper bound on the effective number of candidates.

But is it really the similarity of the Mauritian system to negative plurality (a last-place punishing system) that is key? It would seem not, because a similar kind of turkey-raising can occur under *any* monotonic scoring rule, last-place punishing or not.

A scoring rule is a method of voting in which voters are required to submit full rank orderings of the candidates, these ranks are then awarded points (e.g., 5 points for first, 3 for second, etc.), and the candidate with the most points wins. A scoring rule is monotonic if every rank is awarded a number of points that is strictly less than the next higher rank. Strategic voting under such scoring rules often entails putting a candidate whom one really ranks fairly high, but who threatens a yet-higher candidate's chances of winning, at the end of one's submitted ordering of candidates. This is done in order to make as large a distinction as possible between one's favorite and one's least-favorite marginal candidates. Some high ranks then necessarily go to candidates who are unlikely to win. And, indeed, in the allocation of these ranks the highest should go to those candidates who are most hopeless, and therefore least likely to upset one's best laid plans.

Myerson and Weber (1993) provide an extended example of strategic voting under the most famous of monotonic scoring rules, the Borda Count (which is not last-place punishing). Their example has three candidates, two leftists (both supported by .3 of the population) facing a single rightist (with .4). In equilibrium they find that the three candidates' vote shares are equalized. Thus, the equilibrium effective number of candidates is 3, while the corresponding figure given sincere voting is 2.94. Strategic voting again deconcentrates the distribution of votes.

Some general conjectures about turkey-raising

The general point seems to be this: If under a given electoral system it can be useful to raise turkeys (vote for hopeless candidates), then the system will not impose an upper bound on the effective number of competitors. When will it be useful to raise turkeys? All monotonic scoring rules entail turkey-raising. So do multiple vote systems with bans on partial abstention. So do last-place punishing single-vote systems. In all of these systems, voters wishing to make a maximal distinction between their most-preferred and least-preferred marginal candidates (say A and B) must sometimes, as a side effect of strategically demoting B, give some other candidate an intermediate number of points or votes.

Voters are usually thought not to vote for hopeless candidates because such votes cannot change the outcome. But sometimes voting for a hopeless candidate or list can be a necessary part of a larger strategy – one that can affect the outcome. When this is true, the political consequences of strategic voting will be quite different from those first identified by Duverger (1954), Leys (1959), and Sartori (1968).

7.3 A FINAL WORD

In this chapter, I have summarized the nature of strategic voting's political impact, noting first that it only imposes an upper bound on the effective number of competitors (as opposed to implying a point prediction for this number), and then only in systems that do not make it profitable for voters to raise turkeys.

As a final word, I should note that all of the models of strategic voting in this part of the book are constructed in the shadow of other possibilities. There are many instrumentally rational agents in elections – candidates, activists, contributors – and all of them may respond in ways that overwhelm or accentuate the strategic responses of voters. I have already suggested that candidates and other elites may play a key role in providing voters with the necessary information to vote strategically. In Part III of the book, I investigate strategic entry decisions by candidates and parties, taken in light of the likely strategic voting consequences.