

2004

# Election campaigns, agenda setting and electoral outcomes

Manfred J. Holler

Peter Skott

*University of Massachusetts - Amherst*

Follow this and additional works at: [https://scholarworks.umass.edu/econ\\_workingpaper](https://scholarworks.umass.edu/econ_workingpaper)



Part of the [Economics Commons](#)

---

## Recommended Citation

Holler, Manfred J. and Skott, Peter, "Election campaigns, agenda setting and electoral outcomes" (2004). *Economics Department Working Paper Series*. 79.

Retrieved from [https://scholarworks.umass.edu/econ\\_workingpaper/79](https://scholarworks.umass.edu/econ_workingpaper/79)

This Article is brought to you for free and open access by the Economics at ScholarWorks@UMass Amherst. It has been accepted for inclusion in Economics Department Working Paper Series by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact [scholarworks@library.umass.edu](mailto:scholarworks@library.umass.edu).

# DEPARTMENT OF ECONOMICS

## Working Paper

**Election campaigns, agenda setting and  
electoral outcomes**

by

Manfred J. Holler and Peter Skott

Working Paper 2004-12



**UNIVERSITY OF MASSACHUSETTS  
AMHERST**

# **Election campaigns, agenda setting and electoral outcomes<sup>\*</sup>**

by

Manfred J. Holler, Department of Economics, University of Hamburg<sup>\*\*</sup>

and

Peter Skott, Department of Economics, University of Massachusetts, Amherst.

October 2004

**Abstract:** Framing effects and bounded rationality imply that election campaigns may be an important determinant of election outcomes. This paper uses a two-party setting and simple game theoretic models to analyse the strategic interaction between the parties' campaign decisions. Alternations of power emerge naturally, even if both electoral preferences and party positions remain constant.

Key words: Election, campaign platforms, agenda setting, cost of ruling, Condorcet

JEL classification: D72

---

<sup>\*</sup> Forthcoming in *Public Choice*. We wish to thank Stefan Napel and an anonymous referee for comments on an early version of this paper. Detailed comments and suggestions by Ray LaRaja have been particularly helpful.

<sup>\*\*</sup> Address: IAW, University of Hamburg, Von-Melle-Park 5, D-20146 Hamburg, Germany;  
holler@econ.uni-hamburg.de

## I Introduction

Consider a two-party system and suppose that the policy space is multidimensional. If the electorate is heterogeneous and the two parties choose their policy platforms sequentially and with the exclusive aim of winning elections then, generically, there is no stationary equilibrium. If the incumbent has to choose a platform before the opposition then the opposition will win and, over time, the two parties will alternate in office.

This well-known result has been analysed by a voluminous literature going back to Condorcet; see, *inter alia* Riker (1982). The alternation of power is brought about by strategic changes in the policies of the different parties. Empirically, however, this mechanism may be questionable. Party platforms do change over time but in general there is strong inertia. Parties and politicians become identified with certain positions and cannot, without loss of credibility and trustworthiness, change these positions opportunistically.<sup>1</sup> It may be of interest therefore to consider the simple polar case where the parties' policy platforms remain completely unchanged over time. Furthermore, assume that the party in power implements its policy fully and that the electorate's preferences remain constant.<sup>2</sup>

These assumptions might seem to imply that the popularity of the two parties should be constant and that one of the parties will hold office permanently. The only exception, it would seem, arises if the two parties receive 50 percent of the vote each, in which case the outcome may be decided by drawing lots; more generally, if the shares are close to 50, small stochastic shocks to voting behaviour may lead to changes of government. These conclusions, however, rely on the implicit assumption that voters base their voting decisions on an evaluation of the full party programmes. We find this assumption questionable.

---

<sup>1</sup> Issues of credibility and reputation have received a lot of attention in the context of monetary policy, e.g. Backus and Driffill (1985).

<sup>2</sup> There may be a cost of ruling if the ruling party can implement its policies only gradually, even if the policy space is one-dimensional (Paldam and Skott, 1995).

Our argument in this paper is based on two premises. The first premise is that election campaigns can and often do influence voting behaviour and electoral outcomes; the second states that election campaigns typically focus on a small set of issues. Although the second premise finds support in simple observation, the focus on a narrow “election agenda” would be paradoxical from a perspective of perfect rationality. It is readily explained, however, in the context of bounded rationality; in fact, without the cognitive limitations of the electorate, it may be hard to make sense of election campaigns at all.

Turning to the first premise, one may of course take the view that election campaigns are irrelevant and that the election outcome is independent of the issues that have been included in the election agenda. We find this view unpersuasive. Indeed, the amount of resources that goes into modern election campaigns would be difficult to explain if the campaigns had no effects. Moreover, a large literature has demonstrated how decisions may be strongly and systematically influenced by framing effects (see e.g. Kahneman and Tversky (1979)). The election agenda defines (an important part of) the frame for the voting decision. Thus, in this paper we assume that voting decisions are made on the basis of an evaluation of the two parties *with respect to the issues that are included in the election agenda*. This assumption is combined with the observation that the election agenda varies considerably from one election to the next. These shifts in the agenda may explain alternations in power, even though by assumption both the preferences of the electorate and the policies of the parties remain constant over time.

Our assumptions find support in studies of ‘issue ownership’. Some issues favour one party (the party “owns” the issue) while other issues favour another party. Successful politicians “instinctively understand which issues benefit them and their party and which do not. The trick is to politicize the former, deemphasize the latter” (Carmines and Stimson, 1989). Issue ownership is relatively stable over time, and the primary objective of election campaigns is not to change the views of voters. Instead, election campaigns aim “to achieve a strategic advantage by making problems which reflect owned issues the programmatic meaning of the election and the criteria by which voters make their choice” (Petrocik, 1996: 828).

The election agenda can be determined in a number of ways. We shall focus primarily on the case where strategic decisions of the two parties determine the agenda. To be more specific, the setting of the agenda will be modelled as a game between the two parties, and the logic behind shifts in agenda will be related to the Condorcet paradox. The resulting alternations of power imply that empirically there appears to be a ‘cost of ruling’, that is, incumbent parties will always lose power at some point and, on average, the incumbent suffers a loss in its share of the popular vote.<sup>3</sup> The term “cost of ruling”, however, is misleading in this set-up. A party does not lose an election because it has been in power but because the election agenda is unfavourable to the party.

The paper is in four sections. Section II discusses a simple model of strategic interaction between a government and an opposition, both of which aim solely at gaining a majority of votes. This interaction is modelled as a zero-sum game. In section III, we drop the zero-sum assumption and model the strategic decision situation as an inspection game. This generalization of the model is introduced to allow for the fact that parties and politicians may have preferences with respect to not just the final outcome of the election but also the kind of campaign leading up to the election. We analyse the cases where incumbent and opposition select their campaign strategies simultaneously or, alternatively, where the government chooses its campaign strategy first. In both cases, mixed strategies play an important role and the equilibria invite further interpretation. Section IV concludes the paper.

## **II Some simple cases**

At one extreme, the parties may be completely passive in the determination of the election agenda. This could happen in a number of ways. Voters, for instance, may simply focus on those areas where current policy is out of tune with electoral preferences, that is, on those areas where the opposition offers a better alternative; as a result the incumbent is bound to lose and we get regular alternations between the parties. As another possibility, external forces (the press, for instance, or business interests) may have the power to impose an agenda of their own liking.

---

<sup>3</sup> See Nannestad and Paldam (2002) for a survey of the literature on the cost of ruling.

We shall disregard these cases of passive parties and assume, instead, that the interaction between the strategic decisions of the two parties determines the agenda. This approach may lead to either a first- or a second-mover advantage. As a simple example of the former, consider a two-dimensional policy space but assume that there is only room for one issue on the agenda. ‘Right’, for instance, may want the agenda to focus on taxes while ‘Left’ would like to focus on health care. In this case, whichever party gets to choose the first (and only) election issue will win.

Schofield’s (2004) analysis of the US presidential election in 1860 describes a real-world example (see also Riker (1982, 1986), Dixon and Schofield (2001)). At the Freeport debate in 1858, Lincoln had forced the future Democrat candidate Stephen Douglas to support the *Dred Scott*<sup>4</sup> decision of the U.S. Supreme Court which implied that no state could exclude slavery from its limits. Douglas’s position was a threat to the non-slave states of the North, especially to their free, scarce and well-paid labour, and Lincoln succeeded in making this threat understood during the two years before the election date. At the same time, Douglas appeared to be anti-slavery to Southern voters when he conceded that citizens of a Territory of the West could exclude slavery prior to the formation of a State constitution. His argument that local regulations could interfere with private property of slaves was understood by Southerners as an indication that he would not protect the slave institution.

By focusing the election on the slave issue, Lincoln achieved two things. He gained support in the North and provoked a split among the Democrats who fielded two candidates, Douglas supported by the Northern Democrats and Breckinridge as the candidate of the Southern Democrats. At the election Lincoln gained 40 per cent of popular votes and 180 votes out of 303 of the Electoral College (none from the Border or the South); Douglas received 29 per cent of popular votes and 12 votes of the Electoral College; Breckinridge got 18 per cent of popular votes but 72

---

<sup>4</sup> In March 1857, according to the written opinion of Chief Justice Taney, the Supreme Court concluded that Dred Scott, as a black, had “no rights under the Constitution and hence no standing to sue in the federal court...the conclusion was devastating to free blacks, since it deprived them of all federal rights, including access to federal court” (Dixon and Schofield, 2001:416). Lincoln argued that Negroes were part of the people for whom the Declaration of Independence was made, since “free Negroes were voters...in five of the then thirteen states” (quoted from Schofield (2004)).

votes of the Electoral College (none from the North); Bell, the Whig candidate, finally got 13 per cent of popular votes and 39 votes of the Electoral College.<sup>5</sup> In terms of our game theoretical model, Lincoln exerted a first-mover advantage when he introduced the slave dimension into the campaign.

A first-mover advantage is not always present. As an example of a second-mover advantage, consider a case with four policy areas. Assume that only two areas can be included in the election agenda and that each party can pick one area. Party A, say, would like the campaign to focus on education and crime (areas where the electorate would prefer Party A) while Party B wants to concentrate on taxes and health. If either of the two parties has a dominant strategy that guarantees a majority of votes, clearly this strategy will always be chosen and the same party will win all elections. The interesting case arises when there are no dominant strategies. Thus, let the payoffs associated with winning and losing the election be 1 and  $-1$ , respectively, and let the payoff matrix be as in Table 1.

**Table 1:** *A zero-sum game*

|   |           |       |        |
|---|-----------|-------|--------|
|   |           | B     |        |
|   |           | taxes | health |
| A | education | 1, -1 | -1, 1  |
|   | crime     | -1, 1 | 1, -1  |

Given this payoff matrix, sequential play implies alternating governments if the incumbent chooses (a pure strategy) first; i.e. we shall see a completely regular cost of ruling. If the opposition chooses first, on the other hand, the same party will remain in power permanently. Simultaneous

---

<sup>5</sup> The secession of one Southern state after another, which followed Lincoln's election, led to the Civil War. From the present perspective, the Civil War can be viewed as a 'strategic inefficiency' (see Milesi-Ferretti and Spolaore, 1994), i.e. the price paid for the strategic manipulation of the constraints on future policy.



play implies mixed strategy equilibrium. The outcome becomes stochastic; there will be irregular alternations of power and, on average, the incumbent will lose votes.

The pay-off structure in Table 1 implies that the outcome of the election is determined by the interaction between the election issues pushed by the two parties. A simple rationale for this pay-off structure can be provided by combining ‘issue ownership’ with a Condorcet-type argument. Voters may base their decisions on their ranking of the two parties with respect to the issue that appears most important. The relative importance of any two issues, furthermore, may be found by comparing their importance separately along a number of different dimensions: their relevance for current disposable income, future incomes, and the level of uncertainty, for instance. Now let the ranking of the four policy issues along the three dimensions be as indicated in Table 2; the entry 1 indicating that the policy issue is the most important for the particular dimension. Thus, in this example education is viewed as the most important and crime the least important for future prosperity. The ranking is purely ordinal (that is, in a comparison of two issues the magnitude of the difference in their ranking along a particular dimension is of no significance).

**Table 2:** *Ranking of election issues along three dimensions*

|           | current income | future income | uncertainty |
|-----------|----------------|---------------|-------------|
| Education | 4              | 1             | 3           |
| Crime     | 2              | 4             | 1           |
| Taxes     | 1              | 2             | 4           |
| Health    | 3              | 3             | 2           |

Party A wants voters to focus on education or crime, party B prefers health or taxes. Each party pushes one of its favourite themes; voters then compare the two themes presented by the parties along the three dimensions; they focus on the theme that appears most important and vote for the party that ‘owns this issue’. Consider, for example, the case where party A pushes the education issue and party B has chosen taxation. Voters prefer party A’s education policy but party B’s tax

policy. To reach a voting decision, they therefore have to decide which issue is the more important. Taxes, they believe, influence current income more than education, but education plays the larger role when it comes to both raising future income and alleviating uncertainty. Thus, in a comparison between education and taxes, education appears the more important - since it dominates taxes along two dimensions - and party A will win. Had party B chosen the health strategy, on the other hand, the outcome would have been different: health seems more important than education, and an agenda with these two issues leads to a victory for Party B. Analogously, if Party A chooses to fight the election on crime issues, it will win if Party B has chosen health but lose if Party B has chosen taxes.<sup>6</sup> The example demonstrates that the sequential structure of the selection of the dimension may determine the outcome. This is a standard result in case of a Condorcet paradox where issues are given. However, the result is applied here to the case when candidates can choose from a set of potential campaign issues.

A slightly different, but related, argument emphasizes framing effects. The existence of framing effects, in general, is well-established, and significant framing effects have been identified in the political science literature. Focusing on government spending, for instance, Jacoby's (2000: 763) study "demonstrates that framing effects are extremely powerful". When the presentation of the issue is varied, he concludes,

"people heed certain considerations more strongly and de-emphasize others while formulating their reactions. The net result is individual-level opinion change. The general argument in this study has been that political actors employ issue frames as tools for achieving their objectives. If that is the case, then the empirical results presented here

---

<sup>6</sup> An alternative argument ranks the two parties' positions along three different dimensions (the benefits and costs of the parties' proposals, for instance, along with the perceived competence of the parties in the area). Changing the column headings in Table 2, this same table may give the ranking for Party A with respect to education and crime and for Party B with respect to health and taxes (with party A ranked 5 on all dimensions of tax and health policy and Party B ranked 5 on all dimensions of education and crime). It is now readily seen that the outcome of the election will depend on the election agenda in the same way as above. This alternative interpretation is in line with Budge and Farlie's (1983) position that self-interested voters base their voting decisions on the costs and benefits associated with the policies presented by the candidates.

demonstrate unambiguously that issue-framing effects can have immediate and far-reaching political consequences, by changing the apparent content of American public opinion in systematic ways” (Jacoby, 2000: 762).

A ‘general issue frame’ for government spending, Jacoby argues, provides little information about the activities associated with the spending and thereby tends to evoke a response conditioned by negative general feelings towards ‘the government’; ‘specific issue frames’, by contrast, link governmental activities explicitly with the targets that the activities are meant to achieve and as a result tend to generate support for these activities. Consistent with this categorization, a content analysis of campaign-relevant documents from the 1992 presidential election revealed that while George Bush stressed the need to limit federal spending, Bill Clinton successfully emphasised the need for investment in education, job training, rejuvenating urban areas, and rebuilding infrastructure.

As a more recent example, framing issues have played an important role in the support for John Kerry in the democratic primaries in 2004. ‘Electability’ became a dominant concern in these primaries and, given a republican focus on terrorism, the war in Iraq and national security, Kerry’s status as a Vietnam war hero may have made him appear more electable than other democratic candidates.<sup>7</sup>

Returning to the stylized example in Table 2, framing effects may arise because the salience of different considerations depends on the combination of issues that are being raised during the campaign. If, say, no party raises tax issues then soft socio-cultural criteria may be used to evaluate the proposals. In this case, when soft criteria are used, an incessant reference to heart-rending, personalized stories of health problems and the failures of the health system will dominate educational concerns. Crime victims, however, make even better stories than health victims so, on

---

<sup>7</sup> According to exit polls from the primaries, voters thought Kerry was the candidate most likely to beat President Bush. Saletan (2004) expresses doubts concerning the validity of this assessment but also notes that when exit polls asked voters who among the candidates ‘has the right experience’, “Kerry routinely whipped the field, and deservedly so, given his military service and his expertise in national security and foreign policy.”

soft criteria, crime beats health. If the tax issue is raised, however, self-centred monetary cost-benefit considerations dominate the evaluation. Education now becomes a winner since a powerful case can be made that education is necessary for growth and future prosperity. Crime, on the other hand, cannot beat taxes since no similar argument can be made for the economic benefits of changes in crime policies. Similar framing effects can also be relevant for the variable-sum games which we discuss in the following section.<sup>8</sup>

### **III A generalization: the inspection game**

The zero-sum structure in the previous section presumes that the payoffs depend exclusively on the outcome of the election. This is an oversimplification, even given our assumption that party programmes are given and will be carried out. The parties may want to win, but typically they also have preferences over how victory is achieved. Some issues may be particularly important to party leaders; other issues may allow the leaders to appear statesmanlike and enhance the leaders' personal reputation and standing. But not all vote-winning positions are of this kind. Populist anti-immigration policies, for instance, may be vote winners – in particular if the party does not shy away from a racist campaign - but “respectable” party leaders may prefer to campaign on other issues.

---

<sup>8</sup> For a comprehensive analyse of framing effects in 2-by-2 variable-sum games, see *An Atlas of Interpersonal Situations* by Kelley et al. (2003). Their approach focuses on splitting up the 2-by-2 matrix into three separate matrices which indicate the payoffs which the individual player can control on her own, the payoffs influenced by the other player and the ‘joint product’ of both players with respect to the payoffs of an individual player. It is shown how all possible 2x2 situations can be conceived of as specific combinations of three basic patterns of outcome interdependence: Bilateral Actor Control (BAC), Mutual Partner Control (MPC) and Mutual Joint Control (MJC). Actor Control refers to each person’s effect on his or her outcomes, Partner Control refers to the other person’s control over the actor’s outcomes and Joint Control refers to the joint effect on a person’s outcomes.

**Table 3:** *Generalized two-by-two game*

|                 |                 |                 |
|-----------------|-----------------|-----------------|
|                 | <sup>s</sup> B1 | <sup>s</sup> B2 |
| <sup>s</sup> A1 | (a,α)           | (b,β)           |
| <sup>s</sup> A2 | (c,γ)           | (d,δ)           |

These considerations suggest a general inspection game as the appropriate description of the strategic interaction between the parties, rather than the zero-sum game used above.<sup>9</sup> Thus, let the payoff matrix be given by Table 3 and assume that the payoffs satisfy the following inequalities<sup>10</sup>

$$(1) \quad a > c, a > b, d > b, d > c \text{ and } \beta > \alpha, \beta > \delta, \gamma > \alpha, \gamma > \delta.$$

The row player (party A) prefers diagonal elements to off-diagonal since election agendas along the diagonal implies that the row player wins the election; analogously, the column player (party B) wins in off-diagonal states and prefers these to the losing diagonal states. For both players the ranking between the two diagonal states (or between the two off-diagonal states) reflects preferences over how the election outcome is reached. This game clearly includes the simple zero-sum game in Table 1 as a special case. Strategies  $s_{A1}$ ,  $s_{A2}$ ,  $s_{B1}$ , and  $s_{B2}$  can be identified with education, crime, health and taxes, respectively.

---

<sup>9</sup> The opposition can be thought of as ‘inspecting’ the incumbent’s platform by choosing an appropriate strategy to challenge the government.

<sup>10</sup> Analogous results apply if, instead,  $b > a, b > d, c > a, c > d$  and  $\alpha > \beta, \alpha > \gamma, \delta > \beta, \delta > \gamma$ .

### III.1 Solutions with simultaneous play

Consider first the case of simultaneous play. Both the Nash equilibrium and the maximin solution are in mixed strategies. The maximin solution is defined by

$$(2) \quad p^\circ = \frac{d - c}{a - b - c + d} \quad \text{and} \quad q^\circ = \frac{\delta - \beta}{\alpha - \beta - \gamma + \delta}$$

while the Nash strategies are

$$(3) \quad p^* = \frac{\delta - \gamma}{\alpha - \beta - \gamma + \delta} \quad \text{and} \quad q^* = \frac{d - b}{a - b - c + d}$$

where  $p$  is the probability that party A plays  $s_{A1}$  and  $q$  the probability that party B plays  $s_{B1}$ ; superscripts  $^\circ$  and  $^*$  denote maximin and Nash equilibrium solutions, respectively. Note that party A's Nash equilibrium strategy,  $p^*$ , is exclusively determined by the payoffs of party B and party B's Nash equilibrium strategy,  $q^*$ , is exclusively determined by the payoffs of party A. Consequently, if there are changes in the payoffs of party A but inequalities (1) still apply,<sup>11</sup> the equilibrium behaviour of party B is affected while  $p^*$  remains unaffected. This rather paradoxical result has produced a series of applications, some of rather dubious empirical value. (See Frey and Holler (1998) for a review of related results.)

It is easy to show that the payoffs in the Nash equilibrium ( $p^*$ ,  $q^*$ ) and the maximin solution ( $p^\circ$ ,  $q^\circ$ ) are identical (Holler, 1990),

$$(4) \quad u_i(p^\circ, q^\circ) = u_i(p^*, q^*) = u_i^* \quad , \quad i = 1, 2$$

Thus, it is not "profitable" to play the Nash equilibrium strategy and rely on the rather specific rationality of the other player required by the Nash equilibrium. A player can assure himself the identical value by choosing maximin, *irrespective* of the strategy choice of the other

---

<sup>11</sup> There are weaker conditions such that the Nash equilibrium is mixed and the maximin solution might be in pure strategies.

player. Using the terms of Harsanyi (1977: 104-107) we have the "unprofitability of Nash equilibrium" in two-by-two games if both Nash equilibrium and maximin solution are in mixed strategies. Harsanyi (1977: 125) suggests that, in the case of unprofitable mixed-strategy equilibria, players choose maximin strategies instead of trying to reach an equilibrium. Similar conclusions are reached by Aumann (1985: 668) who suggests that "[u]nder these circumstances, it is hard to see why the players would use their equilibrium strategies."<sup>12</sup>

### **III. 2 Sequential play with mixed strategies**

Assume that the incumbent chooses first (this seems the most natural assumption under sequential play; cf. the discussion below). If the incumbent has to decide on a pure strategy then clearly the opposition will always win, given the payoff structure in Table 3. Following Andreozzi (2002b), however, consider the possibility that the incumbent can commit itself to a mixed strategy  $p$  such that the opposition knows  $p$  and will react with a best reply. If the incumbent chooses  $p = p^*$  then the payoff to the opposition will be independent of  $q$ . Even a marginal difference between  $p$  and  $p^*$ , on the other hand, will break the indifference and induce the opposition to choose a pure strategy; given the payoff structure in Table 3,  $q = 1$  for  $p < p^*$  and  $q = 0$  for  $p > p^*$ . The incumbent can take advantage of this. At  $p = p^*$  the incumbent's payoff will, in general, depend on the opposition's choice of  $q$ . If the payoff is increasing in  $q$ , the incumbent should reduce  $p$  marginally below  $p^*$  and, if it is decreasing,  $p$  should be raised marginally above  $p^*$ . The incumbent's expected payoff are continuous in  $p$  and the effects of marginal changes in  $p$  on the payoff are therefore dominated by the induced shifts in  $q$ .

A simple example may illustrate this outcome. Consider the inspection game in Table 4. In this game we have  $p^* = 3/8$  and  $q^* = 5/7$ .

---

<sup>12</sup> Perhaps an answer to this question could be found in an evolutionary context: Andreozzi (2002a) shows for a dynamic replicator model of the game in Table 2 that maximin strategies and Nash equilibrium strategies can co-exist in a dynamic model.

**Table 4:** *An inspection game*

|          |          |          |
|----------|----------|----------|
|          | $s_{B1}$ | $s_{B2}$ |
| $s_{A1}$ | (2,0)    | (0,5)    |
| $s_{A2}$ | (0,3)    | (5,0)    |

If  $p = p^*$ , then party A prefers B to choose  $s_{B2}$ , that is,  $q = 0$ . In order to achieve this outcome, the incumbent party A will randomise with  $p > p^*$ . But the larger  $p > p^*$ , the smaller will be the payoff of A as the weight on the "nice" payoff 5 becomes smaller. Thus the incumbent A will choose  $p = p^* + \epsilon$  where  $\epsilon > 0$  is large enough to induce the opposition party B to select  $s_{B2}$  as a best reply; and with rational players and perfect information, any positive value of  $\epsilon$  will do. In the limit, i.e., for  $\epsilon \rightarrow 0$ , the solution  $(p^*, s_{B2})$  is a subgame perfect equilibrium if A chooses first and B selects its best reply. This limiting case is a good approximation to the outcome with  $\epsilon$  being "small".

The sequential equilibrium implies a Pareto improvement compared to the Nash solution: the payoffs for the two players in the sequential equilibrium are  $(25/8 - 5\epsilon, 15/8 + 5\epsilon)$  compared to  $(15/14, 15/8)$  in the Nash equilibrium. The improvement for B is strictly positive for  $\epsilon > 0$  but goes to zero for  $\epsilon \rightarrow 0$ ; for A, however, the improvement remains positive for  $\epsilon \rightarrow 0$ . This Pareto-ranking of the two outcomes is not restricted to the particular numerical example. It holds as long as, for  $p = p^*$ , party A has strict preferences over party B's choice of strategy. Equation (4) provides another way of looking at the result. The Nash payoffs  $u_i^*$  can be achieved from playing maximin strategies  $(p^\circ, q^\circ)$  and when these strategies are different from the equilibrium strategies  $(p^*, q^*)$  at least one party can get a higher payoff than  $u_i^*$ , given the payoff level of the other party guaranteed by maximin.



### III.3 Discussion

The analysis in section III.2 has left open two questions: the interpretation of mixed strategies in the context of agenda setting and, secondly, the ability of the incumbent to commit to a mixed strategy and make this commitment credible.

Note, first, that the government influences the election agenda in a number of ways. The allocation of government portfolios, for instance, will play a role. The minister of education will be central to a campaign focused on educational issues; a crime-focused campaign, on the other hand, shifts the spotlight to the minister of the interior. All politicians, however, have idiosyncratic ideas and beliefs. Furthermore, they differ in their skills and popularity, and by giving the education portfolio to a strong and charismatic figure, the probability is raised that education will indeed be part of the agenda (because the party will want it to be part of the agenda or, alternatively, because the charisma of the politician acts as a magnet for the press and makes it impossible for the party to shift press coverage and public debate to another issue). The timing of the implementation of the government's programme is another example. In this paper, by assumption, the government's programme will always be fully implemented, but the focus of public debate at the election time will depend on the sequencing of the implementation.

These sequencing decisions, like the allocation of government portfolios, are made before, and *have* to be made before, the start of the election campaign. They may not pin down the choice of election issue but they constrain the incumbent's ability to choose and impose election issues freely. Government decisions of this kind – decisions with a bearing on the agenda – cannot be avoided, the decisions are public information, and the opposition can evaluate the implications of the decisions for the likely election agenda. Thus, it may be reasonable to assume that the incumbent acts as a Stackelberg leader and that its pre-campaign decisions entail an implicit commitment to a mixed strategy in the election game. The opposition clearly also makes pre-campaign decisions but, almost by definition, the incumbent dominates the political arena before the election campaign. The counterpart to this domination is reduced flexibility when it comes to picking issues for the election campaign.

It should be noted, in this connection, that our analysis of the Stackelberg outcome does not require that the mixed strategy of the incumbent be completely pinned down. In the example in section III.2, for instance, as long as the incumbent can constrain itself to a probability  $p \geq p^*$ , the opposition will choose  $s_{B2}$ ; given the constraint  $p \geq p^*$ , it will then be optimal for the incumbent to pick  $p = p^*$ . Thus, the Nash-outcome, following a pre-commitment to  $p \geq p^*$ , is identical to the Stackelberg outcome with full commitment to the Stackelberg mixed strategy.

#### **IV Simplifications, implications and conclusions**

The analysis in this paper has implications for the *cost of ruling*. We have shown that the parties may alternate in power even if the preferences of the electorate and the party platforms remain constant over time. The reasoning behind this result uses Condorcet-type arguments (comparisons are being made across a number of dimensions) but applies these arguments to an analysis of the role of election campaigns as a framing device. Thus, it is not the party positions that change over time, as in the traditional Condorcet-argument, but the selection of campaigning issues. The key assumptions are the bounded rationality of the electorate and the associated influence of the election agenda on the voting decisions.

The formal models simplify the choice problems faced by incumbent and opposition. It is clearly an oversimplification, for instance, to assume that there are only a small number of strategies to choose from (the game is presented in normal form and the strategy set should include conditional strategies; “if party B tries to refocus the debate on X with 5 days left to go then we will counter that by ...”). Adding more strategies, however, would not affect the underlying logic of the argument. It might be argued also, as another objection, that most voters are unaffected by election campaigns. This claim probably is true, but as long as the core voters give neither party an overall majority, our argument is readily extended to the case where election campaigns affect only a minority of swing voters.

The various simple models show that the sequential structure of the choice of platforms for the incumbent and the opposition is essential for the election results. The most natural assumption

in this respect has the incumbent choosing first. But the choice, we have argued, need not be a pure strategy. Instead, the incumbent's pre-election decisions may constrain its choice of strategy at the start of the election campaign. The often-observed obfuscation policy of the incumbent (see Magee et al. (1989) and Magee (1997)) can also be interpreted along these lines. Obfuscation implies that the opposition and the voters may have no clear insights into who are the winners and losers of a policy. In the end, actions by the government will benefit some voters and harm others but, in the presence of obfuscation, the specific actions, i.e. the selected pure strategies, look like a random draw from a mixed strategy. In the context of elections, the opposition has to react on the obfuscated policy proposals and may be unable to wait until the realization of the mixed strategy. Note, however, that it is important for the argument which supports the mixed strategy that the government cannot choose a realization "at will" after the opposition has published its (pure) strategy.

The picking of dimensions of the election agenda is at the centre of our analysis. The Medicis in 15<sup>th</sup> century Florence exemplify a more radical approach to this picking of dimensions in the political arena. The 15th century Florentine constitution suggested that the city was governed by a signoria comprising nine men: eight *priori* were led by a *gonfaloniere della giustizia*. These people were not elected by popular vote but chosen by lot. The names were drawn from a series of bags prepared in such a way that there would be two priori from each quarter of the town, and six of the eight would be from the wealthier classes and two from the artisan classes. Since each government, however, served only for a period of two months, participation in government was, in principle, rather widespread. Cosimo de Medici (*Il Vecchio*) used the rapidly accumulating wealth of the Medici bank and his personal charm to acquire friends in every part of society and dominate Florence for thirty years: "...through a series of cautious experiments and ad hoc electoral measures he sought to subvert the republic in such a way that the electoral bags would never again throw up a *signoria* opposed to his interests. On the other hand, he never actually abolished the business of choosing the names of the government from electoral bags; nor did he seek to become the city's official prince or dictator" (Parks, 2003:36). He warned, "the greatest attention must be paid to

technical aspects" of ruling by elections. His son, Piero and grandson Lorenzo (*Il Magnifico*) attended to the warning and followed the practice of filling the lottery bags with names of friends and allies.

## References

- Andreozzi, L. (2002a). Oscillations in the enforcement of law: An evolutionary analysis. *Homo Oeconomicus*, 18: 403-428.
- Andreozzi, L. (2002b). Rewarding law-enforcers increases the frequency of law infractions. Some more surprising results from the inspection game. *Public Choice* (forthcoming).
- Aumann, R.J. (1985). On the non-transferable utility value: a comment on the Roth-Shafer examples. *Econometrica*, 53: 667-677.
- Backus, D. and Driffill, J. (1985). Inflation and reputation. *American Economic Review*, 75, 530-538.
- Bernheim, B.D. (1984). Rationizable strategic behavior. *Econometrica* 52: 1007-1028.
- Budge, I. and Farlie, D.J. (1983). *Explaining and predicting elections*. London: Allen and Unwin.
- Carmines, E.G. and Stimson, J.A. (1989). *Issue evolution*. Princeton: Princeton University Press.
- Dixon, K. and Schofield, N. (2001). The election of Lincoln in 1860. *Homo Oeconomicus* 17: 391-425.
- Frey, B.S., and Holler, M.J. (1998). Tax compliance policy reconsidered. *Homo Oeconomicus* 15: 27-44.
- Harsanyi, J.C. (1973). Games with randomly distributed payoffs: a new rational for mixed-strategy equilibrium points. *International Journal of Game Theory* 2: 1-23.
- Harsanyi, J.C. (1977). *Rational behavior and bargaining in games and social situations*. Cambridge: Cambridge University Press.
- Harsanyi, J.C. (1992). In defence of game theory. *Rationality and Society* 4: 51-61.
- Holler, M.J. (1990). The unprofitability of mixed strategy equilibria in two-person games. *Economics Letters* 32: 319-323.
- Jacoby, W.G. (2000). Issue framing and public opinion on government spending. *American Journal of Political Science* 44: 750-767.
- Kahneman, D., and Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica* 47: 263-291.
- Kelley, H.H., Holmes, J.G., Kerr, N.L., Reis, H.T. Rusbult, C.E. and Van Lange, P.A.M. (2003). *An atlas of interpersonal situations*. Cambridge: Cambridge University Press.

- Magee, S.P., Brock, W.A. and Young, L. (1989). *Black hole tariffs and endogenous policy theory*. Cambridge: Cambridge University Press.
- Magee, S.P. (1997). Endogenous protection: The empirical evidence. In D.C. Mueller (ed.), *Perspectives on Public Choice: A Handbook*, 526-561. Cambridge: Cambridge University Press.
- Milesi-Ferretti, G.M. and Spolaore, E. (1994). How cynical can an incumbent be? Strategic policy in a model of government spending. *Journal of Public Economics* 55: 121-140.
- Nannestad, P. and Paldam, M. (2002). The cost of ruling, in: H. Dorussen and M. Taylor (eds.) *Economic Voting*, London: Routledge.
- Paldam, M. and Skott, P. (1995). A rational-voter explanation of the cost of ruling. *Public Choice*, 83, 159-172.
- Parks, T. (2003). Mad at the Medicis. *New York Review of Books* 50 (May 1), 36-38; review of Lauro Marines, *April Blood: Florence and the Plot Against the Medici*, Oxford University Press.
- Pearce, D.G. (1984). Rationalizable strategic behavior and the problem of perfection. *Econometrica* 52, 1029-1050.
- Petrocik, J. R. (1996). Issue ownership in presidential elections. *American Journal of Political Science* 40: 825-850.
- Riker, W. (1982). *Liberalism against populism*. San Francisco: Freeman.
- Riker, W. (1986). *The art of political manipulation*. New Haven, CT: Yale University Press.
- Saletan, W. (2004). Kerried away: the myth and math of Kerry's electability. *Slate*, Tuesday, Feb. 10.
- Schofield, N. (2003). The founding of the American Agrarian Empire and the conflict of land and capital. *Homo Oeconomicus* 19: 471-505.
- Schofield, N. (2004). The quandaries of slavery and Civil War in the US. Forthcoming in Mario Ferrero (ed.), *Revolution (Homo Oeconomicus 21)*. Munich: Accedo Verlag.