

Political Alternations: Voter Deception or Voter Satisfaction? A Review

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ABSTRACT

In this paper, I review the still small theoretical literature dealing with Political Cycles (changes of parties in power) in two parties majoritarian elections. Few recent theories of political competition propose different explanations of this phenomena. I first discuss two opposite theories which either argue that Political Cycles emerge due to voter deception or to voter satisfaction. I then depart from this debate and review two other possible origins of political alternations, the first one is based on candidates myopia and the second one on policy inertia.

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In modern Democracies, political alternation in power is a frequent phenomena. Why do one not observe greater stability of parties in power? How to explain turnover of parties in power? Why a party can come to power back?

This review focuses on models which propose various possible causes for the emergence of Political Cycles. Recent theoretical models can be classified in three categories: the first one, supported by Aragones (1997, 1998) follows the psychological explanation of voters “disappointment”, the second one, recently introduced by Gautier and Soubeyran (2006) propose an opposed point of view and develop a framework where voters change their vote when they are satisfied by the government. In the third group of theories, alternation is generated by different sources of inertia. Bendor, Mookherjee and Ray (2005) do not mention political cycles¹, but their setting clearly provides a third explication due to candidates bounded rationality (I argue that this theory could lead to an explanation of political cycles). Finally, Soubeyran (2006) provides a very simple model where political cycles are generated by policy inertia.

These models share a common feature, they consider an infinite sequence of two parties majoritarian elections and focus on the dynamic of the decisions made by parties and voters. This allows me to adopt the definition of Political Cycles (I equivalently use the term “Political Alternations”) introduced by Gautier and Soubeyran (2006) and Soubeyran (2006): *A model exhibits Political Cycles if and only if no party can win an infinite number of consecutive elections.*

Before exposing these different views, it is legitimate to ask whether the famous model of Downs (1957) does not suce to explain political alternations? Does another theory is needed? The Downsian model predicts that parties programs converge to the median voter preferred policy, according to the famous Median voter theorem due to Black (1948). Hence, in a two parties system, each of them has one half chance to win a majoritarian election. In this setting, looking at an explanation of political cycles yields to conclude that alternations are due to pure

hazard. Then, the results of two parties majoritarian elections should be equivalent to the result of the coin experiment. This feature does not seem to be supported by the data, since 1840, American presidents have been Democrats almost 62% of the time. We then argue that the dynamic of two parties systems with majoritarian elections does not seem to coincide with the coin experiment. Merlo (1998) estimates a model of government duration and shows that postwar Italian government downfall probability increases with its tenure. This result rejects the idea that government face to a constant downfall probability, and all the more the one half chance supported by the extension of the Downsian model to a sequence of successive elections.

Scholars have extensively studied the principal forces that prevent the alternation of parties in power. In Political Science, these forces are included in the term “incumbency advantage”. Indeed, the candidate in power is advantaged compared to the challenger for numerous reasons². This theory is supported by overwhelming evidence, both in Senate elections and in elections to the House of representatives. Some of the major factors of the incumbency advantage are redistricting³, seniority systems⁴, and the lack of collective responsibility⁵.

In this review, I focus on the different explanations of Political Cycles, *i.e.*, only on the forces which tend to induce changes of parties in power. I first discuss the voter deception and satisfaction explanations in section 2, I then present the different theories based on inertia in section 3, and, finally, I conclude in section 4.

1. VOTER DECEPTION OR VOTER SATISFACTION

In this section, we compare the two explanations of political cycles stating either that voters are always disappointed or that voters are always satisfied by the government actions. Roughly speaking, the deception explanation (Aragonès, 1997) states that voters are always deceived and then change their vote, whereas the satisfaction approach (Gautier and Soubeyran, 2006) suggests that voters are always satisfied by the government and then wish to benefit from competencies different from the ones of the politicians in power.

1.1 Voter Deception

The most shared view of parties alternations in power is certainly the one based on voters deception. Schlesinger (1949, 1986, 1992) argues that the electorate is inevitably disappointed by the party or the ideology that is in power. Hence, if voters are always deceived by the government, one can expect frequent changes of parties in office.

In *Negativity Effect and the Emergence of Ideologies*, Aragonès (1997) build a dynamic political competition model of infinitely repeated elections including the psychological phenomenon called “negativity effect”. This term refers to the fact that people overweights negative informations compared to positive ones. This effect has found empirical support in different contexts such as consumption and voting (see Kernell 1977, Lau 1982, 1985).

Furthermore, Downs (1957), in his fruitful book, argues that the longer an incumbent is in power, the number of voters disapproving him increases. Aragonès then presents a model where voters cast their ballot according to the government past performance. Voters differ in their dissatisfaction for two policies $\{0, 1\}$. Each voter is represented by a parameter x_i and they are uniformly distributed over the unit interval $[0, 1]$. x_i can be interpreted as the less deceiving

policy for voter i . Voters consider an aggregate (negative) utility of the parties past policies (called “dissatisfaction indices” in Aragonés (1997)). That is, voters’ evaluation of a given party depends on all the policies it has implemented in the past. Voters discount time and weight recent policies more heavily than older ones.

Let R and L denote the two parties in competition. At election t , the dissatisfaction of voter i for party R is given by:

$$U_{ii}^R = \begin{cases} -|x_i - w_{t-1}| + \delta U_{ii-1}^R, & \text{if } R \text{ is the incumbent,} \\ \delta U_{ii-1}^R, & \text{if } R \text{ is in the opposition,} \end{cases} \quad (1)$$

where $0 < \delta < 1$ is the discount rate and $w_{t-1} \in \{0, 1\}$ is the policy implemented by R (if it is the incumbent) during legislature $t - 1$. The term U_{ii-1}^R is called voter i ’s actualized “cumulative dissatisfaction index” for party R .

Furthermore, voters cast their ballot for the “less deceiving” party, *i.e.*, the one with the higher dissatisfaction index (since $U_{ii}^R, U_{ii}^L \leq 0$).

In this setting, the intuition of the alternation of parties in power is very clear. On the one hand, voters overweight present deception compared to older ones (as $0 < \delta < 1$), then the longer a party is out of power, the highest its dissatisfaction index is. On the second hand, the political action of the government always deceives voters ($-|x_i - w_{t-1}| \leq 0$), then the longer a party is in power, the smallest its dissatisfaction index is. In other words, the party in power is less and less popular, whereas the opposition is less and less deceiving.

Aragonés (1997) shows that parties always alternate in power and their policies differ when their objective is to maximize the share of votes they can obtain in the next election:

Theorem 1: (Theorem 1, Aragonés (1997)) If the relative dissatisfaction index of the median voter lies in the interval $\left(\frac{\delta}{1+\delta}, \frac{1}{1+\delta}\right)$, then we have the following result up to any permutation of parties:

- (i) Party L always chooses policies of type 0 and party R always chooses policies of type 1,
- (ii) Parties always alternate in office.

We need here to explain why parties propose different programs in this setting. Without going into the details of the proof, I rather prefer to provide the intuition of the mechanism.

If the incumbent chooses to implement the policy his adversary has implemented last, then he always deceives (all) voters more than the opposition party, which benefits from a memory effect (the actualization of the dissatisfaction index induces a mechanical increase of “popularity” for the opposition party). Hence, to maximize his share of votes in the next election, the incumbent has an incentive to choose the other policy in order to be less deceiving in the eyes of strongest opponents of the last implemented policy of the out party.

Let consider the following simple example. At period $t = 0$, there is no incumbent, then $U_{i0}^R = U_{i0}^L$ for all voters and each party has one half chance of winning. At time $t = 1$, suppose R is the incumbent, whatever the policy he implements, 0 or 1, he knows he will receive no vote (in fact a share with mass zero) since $U_{i1}^R < 0 = U_{i1}^L = U_{i0}^L$ for all voters⁶. In this model, voting is retrospective, as voters base solely their voting decision on past policies.

Now I show that platforms divergence is not necessary to the alternation result:

Proposition 1: Let consider a reduced policy space, $\{0\}$, then parties always alternate in office.

The definition of the “dissatisfaction index” suffices to the systematic alternation of parties in power. Indeed, suppose that only one policy is available, say 0. At period $t = 0$, $U_{i0}^R = U_{i0}^L = 0$, then both parties have one half chance of winning. Suppose that R wins this first election, then $U_{i1}^R = -x_i < U_{i1}^L = 0$ (for $x_i > 0$), then L wins the election. At time $t = 2$, $U_{i2}^R = -\delta x_i > U_{i2}^L = -x_i$, then R wins the election. Hence, one can show (see the appendix) that party R wins every election where t is even and L wins every election where t is odd.

1.2 Voter Satisfaction

In *Political Cycles: Issue Ownership and The Opposition Advantage*, Gautier and Soubeyran (2006) propose a challenging explanation of parties alternation in office. Although the deception explanation is convincing, since medias continuously expose disappointed citizens by the government and citizens are generally not very confident in their governments. But, departing from the common wisdom, we have shown that Political Cycles can emerge from a very different origin. We show that voters change their vote because they are “satisfied” by the government.

More precisely, we consider the idea of Petrocik (1996) that parties “own” different issues in the policy space. Indeed, left-wing parties are often considered as being more efficient for welfare programs and right-wing parties are often considered to be more efficient for security programs. Furthermore, policies often have long term effects (at least their effects often go past one legislature). Considering these two ideas, voters will change their votes, once the party in power has implemented an effective program on the issue it owns⁷. Once voters are satisfied on one dimension, they elect the challenger, which is considered to be more efficient on the other dimension. The main idea of this paper is that voters change their vote when the incumbent party has solved the problem for which it has been elected.

Consider an infinite sequence of elections and two office-motivated parties A and B . The government provide two durable public goods a and b which stocks depreciate at rate δ . Let $g_t \geq 0$ denotes the stock of public good g ($g = a, b$) at election t . The government elected in election $t + 1$ provides an amount $I_{g,t}$ of g . Hence, the level of public good g at election $t + 1$ is given by:

$$g_{t+1} = (1 - \delta) g_t + I_{g,t}$$

The term $I_{g,t}$ is positive when the government provide a new amount of the public good and negative when the government chooses to (partially) substitute the other public good to g . At each period the government budget is supposed to be fixed and normalized to unity, such that:

$$I_{a,t} + I_{b,t} \leq 1,$$

Voters preferences differ by the intensity they place on the two public goods. Voter i is represented by α_i which is in $[0, 1]$. Her utility is given by:

$$W_i(a_t, b_t) = \alpha_i \ln(a_t) + (1 - \alpha_i) \ln(b_t),$$

Now, to capture the idea of issue ownership, it is supposed that parties differ in their abilities to provide the two public goods. The technology for the provision of the two public goods has

constant return to scale. Party A provides each unit of a at cost $\frac{1}{\eta^A}$ (with $1 < \eta^A < +\infty$) and each unit of b at cost 1. Party B provides each unit of a at cost 1 and each unit of b at cost $\frac{1}{\eta^B}$ (with $1 < \eta^B < +\infty$).

Since voters preferences verify the intermediate preferences property (Grandmont, 1978), the median voter theorem apply. Hence, every program that is preferred to the adversary's one is winning. Since there is no uncertainty in this model, every program that is preferred by the median voter to every program that is available to the adversary is winning. It can be easily shown that the program that the median voter prefers among the set of programs available to party A is $m_t^A = (\eta^A \alpha_m s_{t-1}^A, (1 - \alpha_m) s_{t-1}^A)$ and the program preferred among the set of programs available to party B is $m_t^B = (\alpha_m s_{t-1}^B, \eta^B (1 - \alpha_m) s_{t-1}^B)$, where $s_{t-1}^A = 1 + (1 - \delta) \left(b_{t-1} + \frac{a_{t-1}}{\eta^A} \right)$ and $s_{t-1}^B = 1 + (1 - \delta) \left(a_{t-1} + \frac{b_{t-1}}{\eta^B} \right)$. Hence, party A wins (for sure) the election at time t if and only if $W(m_t^A) > W(m_t^B)$, or:

$$A_t = \frac{s_{t-1}^A}{s_{t-1}^B} \frac{(\eta^A)^{\alpha_m}}{(\eta^B)^{1-\alpha_m}} > 1,$$

In this case, any program x_t^A such that $W(x_t^A) \geq W(m_t^A)$ is winning. When $A_t = 1$, the median voter is indifferent between the two parties, we show that the advantage of the out party (A_t for party A and $\frac{1}{A_t}$ for party B) increases the longer it stays in the opposition. Indeed, suppose that party A is elected in t (then it must be $A_t \geq 1$). The issue ownership assumption forces party A to provide more of good a than good b . Since policies have long term effects, the median voter now a policy with a greater proportion of good b . This does not mean that the median voter will elect party B in the next election, but that her utility for party B programs increases (see Gautier and Soubeyran 2006, Proposition 2). To summarize, the advantage of the party in power decreases the longer it stays in office, *i.e.*, A_t increases when it is smaller than 1 and decreases when A_t .

Now it is very intuitive that political cycles emerge or not depending on the median voter preferences (represented by α_m). When the median is not moderate enough (α_m close to 1 or 0), no cycles will occur. Indeed, consider the extreme case where the median voter only care about good a , party A advantage is then,

$$A_t = \frac{\eta^A + (1 - \delta)(\eta^A b_{t-1} + a_{t-1})}{1 + (1 - \delta) \left(a_{t-1} + \frac{b_{t-1}}{\eta^B} \right)} > 1,$$

In this situation, party A wins all the elections. The dynamic of the outcomes oscillates when the median voter is moderate enough, when she does not strongly advantage one of the two parties. Indeed, when $\frac{(\eta^A)^{\alpha_m}}{(\eta^B)^{1-\alpha_m}}$ is close to one, A_t is enough close to 1 to observe indefinite changes of parties in power.

Finally, I argue that the real explanation of political cycles might be in between the "pessimistic" view of deception and the "optimist" view of voter satisfaction, as one can similarly think that candidates motivations in real world are in between pure office-seeking à la Downs

(1957) and policy motivation à la Wittman (1977). Now I review two other possible explanations, established on arguments linked to inertia.

2. INERTIA AND POLITICAL CYCLES

2.1 Policy Inertia: Irreversibility Degree of Policies

In a note entitled *When Inertia Generates Political Cycles* (2006), I have proposed a very simple model explaining Political Cycles by inertia only. The idea of this paper is that policy inertia induces a gap between the effective policy and the policy implemented by the government.

The setting can be summarized as follows. The set of policies is the unit interval, voters have different bliss points, and the two parties have different fixed programs. The idea of policy inertia is introduced in the simple following way: the effective policy is a mix (more precisely, a convex combination) of the past effective policy and of the government present policy. This assumptions can be interpreted as the fact that the policy implemented in the past cannot be completely removed without any cost. This inertia creates a dynamic link across the successive elections.

The idea is close to Soubeyran and Gautier (2006) in the sense that voters wish a mix between the different parties programs they cannot obtain in one legislature only. Voters are conscious that the effective policy is a mix between the government present policy and the past effective policy, and then change their vote from an election to the following.

The main advantage of this model compared to Gautier and Soubeyran (2006) is its greater simplicity but it does not consider an endogeneous electoral competition. Indeed, one could extend this model in considering purely office-motivated candidates and suppose that they choose the program that maximize their share of votes. In this setting, they will converge to the median voter preferred program, and the outcome of all the elections will be generated by pure hazard.

2.2 Satisficing and Selection: A Bounded Rationality Model of Political Cycles

In *Satisficing and Selection in Electoral Competition* (2006), Bendor, Mookheerjee and Ray propose a behavioral model of political competition. Their approach consider parties with adaptive behaviors in the spirit of Kramer (1977), Miller (1980) and Ferejohn *et al.*, (1980, 1984). The setting of their model greatly differs from the Downsian economic approach of elections. They notice that parties cannot be as rational as firms are. As they state, politicians are uncertain about voters preferences, and this uncertainty is even stronger than postulated in the majority of elections models. Indeed, they declare with accuracy that “uncertainty persists throughout campaigns and sometimes after an election has been decided”. This observation about politics justify to suppose that parties are boundedly rational.

They consider a sequence of elections. The main difference with the majority of electoral competition models is that parties do not maximize their probability of winning, furthermore voters preferences are not exactly specified. In their setting, winning parties satisfice, the winning party keeps its platform, whereas the opposition party search. Although their paper is not focused on alternation, the model provides a different explanation of political cycles. The main result of the paper is that the sequence of winning platforms is absorbed into the top cycle of the set of feasible policies with certainty. A second important result is that the model does not predict

platforms convergence, unlike the Downsian model. Like in the Gautier-Soubeyran's model, the fact that parties programs differ is necessary to observe political cycles. In this section, I first present the model and few results of the paper and then propose a conjecture for the emergence of political cycles in this setting.

There are two candidates competing in an indefinitely sequence of elections and a finite set of voters $N = \{1, \dots, n\}$ where n is odd, and a finite number of feasible policies $X = \{x_1, \dots, x_m\}$ where $m > 1$. It is supposed that voters have strict preferences over the set of policies, and, since n is odd, the majority preference is also strict. Hence, for any two policies x_i and x_j , either $x_i \succ x_j$ (a majority of voters prefers x_i to x_j) or $x_j \succ x_i$. The policy set is partitioned into z disjoint subsets, $\{L_1, \dots, L_z\}$, with $1 \leq z \leq m$. The subset L_1 is defined as the top cycle of X . A policy is in the top cycle set if and only if there exists a chain of strict majority preference from any other policy to this policy (this set cannot be empty). Every level L_s with $1 \leq s \leq z$ is iteratively constructed as being the top cycle set of $X \setminus \{L_1, \dots, L_{s-1}\}$. For example, L_2 is the top cycle set of $X \setminus L_1$ and L_3 is the top cycle set of $X \setminus \{L_1, L_2\}$.

The parties behavior depends upon they are in office or in the opposition. The incumbent party satisfies (Simon, 1955), it keeps its platform in $t + 1$ if it has been elected in t . On the contrary, losers are dissatisfied, then they search, they (at least sometimes) try platforms different from the one they chosen the previous election (the combination of these two assumptions is labeled (A1)).

Without specifying the way losers search, Bendor *et al.*, show that the trajectory of winning platforms I_t is such that it stays at its level or climbs higher. Formally, if $I_t \in L_r$, then for all $k > t$, $I_k \in L_q$ with $q \geq r$ (see Proposition 1, Bendor *et al.*, 2006). This result is very intuitive. Indeed, if the incumbent wins the election at $t + 1$, since $I_{t+1} = I_t$ then $I_{t+1} \in L_r$. If the challenger wins (its platform is denoted C_{t+1}), then majority voting imposes that $C_{t+1} \in L_q$ with $q \geq r$.

Bendor *et al.*, shows that the trajectory of winning platforms climbs up to the top cycle set under the assumption following assumption:

(A2) (Bendor *et al.*, 2006): *There is an $\epsilon > 0$ such that for every history and in every election in which the challenger hasn't already tried everything, the probability it experiments is at least ϵ .*

Proposition 2: (Bendor *et al.*, 2006) The trajectory of winning policies converges to and is absorbed by L_1 with probability 1.

Indeed (A2) ensures that the trajectory of I_t climbs up and doesn't stuck indefinitely in one intermediate level, whereas we already know that once in L_1 , the trajectory cannot leave this set.

I now argue why I conjecture that this setting can exhibit political cycles. Consider the situation where a Condorcet winner exists (*i.e.*, L_1 is a singleton, because the majority preference is strict). Remember that the model exhibits Political Cycles if and only if no party can win an infinite number of consecutive elections.

In the case where a Condorcet winner exists, one can intuitively conjecture that Political Cycles will arise with a strictly positive probability under (A2) and under an additional assumption:

(B): *there is an $\epsilon > 0$ such that for every election in which the challenger's program is the Condorcet winner, the probability it keeps this platform is at least ϵ .*

Indeed, (A2) ensures that the winner will, at least in the long run, chooses the Condorcet winner. Furthermore, (A2) ensures that the challenger will experiment in choosing the Condorcet winner, and (B) ensures that there is a strictly positive probability that it sticks to this platform. Hence, there is a (strictly) positive probability that the challenger wins an election in the long run. One can repeat this reasoning, and conclude that there is a strictly positive probability that parties indefinitely alternate in power.

3. CONCLUSION

I have presented the different causes for political cycles presented in the literature. On the first hand, although contradictory at first sight, the “deception” and the “satisfaction” approaches seem to be complementary. Alternations may occur because voters are disappointed and/or because they wish to mix the competences of the different parties. On the second hand, the two approaches dealing with candidates myopia and policy inertia demonstrate that political cycles can have extremely various origins. I conclude that there is a need for empirical studies on the question of political alternations.

4. APPENDIX

Proof. of Proposition 1: Supposing that party R (without loss of generality) wins the election at $t = 0$, we have shown that L wins the election at time $t = 1$. Suppose that for all $0 \leq k \leq T$, R wins when $t = 2k$ and L wins when $t = 2k + 1$. At period $t = 2T + 2$, the two dissatisfaction indices can be written as:

$$\begin{aligned} U_{i2T+2}^R &= - \sum_{p=0}^T \delta^{2p+1} x_i, \\ U_{i2T+2}^L &= - \sum_{k=0}^T \delta^{2k} x_i, \end{aligned} \quad (2)$$

Indeed, these two intermediate results can be proved by induction. We have already seen that $U_{i2}^R = -\delta x_i$. Now suppose that $U_{i2k+2}^R = - \sum_{p=0}^k \delta^{2p+1} x_i$ with $0 \leq k \leq T - 2$. Since R wins every even election, at time $t = 2k + 3$, he is the incumbent, and then $U_{i2k+3}^R = -x_i - \sum_{p=0}^k \delta^{2p+2} x_i$. Since R loses every odd election, at time $t = 2k + 4$, he is in the opposition, then:

$$\begin{aligned} U_{i2k+4}^R &= -\delta x_i - \sum_{p=0}^k \delta^{2p+3} x_i \\ &= -\delta x_i - \sum_{p=1}^{k+1} \delta^{2p+1} x_i \\ &= - \sum_{p=0}^{k+1} \delta^{2p+1} x_i, \end{aligned} \quad (3)$$

Hence for all $0 \leq k \leq T$, $U_{i2k+2}^R = - \sum_{p=0}^k \delta^{2p+1} x_i$, and the formula for party L can also be proved with the same kind of argument.

Now compare the dissatisfaction indices in computing $U_{i2T+2}^R - U_{i2T+2}^L = (1 - \delta) \sum_{p=0}^T \delta^{2p+1} x_i > 0$ for $x_i > 0$. Finally, R wins the election at period $t = 2k + 4$.

The last point to prove is that L wins every odd election. At period $t = 2T + 3$, the two dissatisfaction indices can be written as:

$$\begin{aligned} U_{i2T+3}^R &= -x_i - \sum_{p=0}^T \delta^{2p+2} x_i, \\ U_{i2T+3}^L &= - \sum_{k=0}^T \delta^{2k+1} x_i. \end{aligned} \quad (4)$$

Now compare the dissatisfaction indices in computing $U_{i2T+3}^R - U_{i2T+3}^L = (\delta - 1) \sum_{p=0}^T \delta^{2p} x_i < 0$. Then L wins at time $t = 2T$. \square

Notes

1. I solely present the results needed to understand how alternation of parties emerge in the different settings.
2. Ansolabehere and Snyder (2002) provide an excellent survey of the incumbency advantage literature, and an empirical contribution on state and federal elections in U.S. for the period 1942-2000. They find strong support for the incumbency advantage in state executives elections and conclude that explanations specific to the legislators incumbency advantage are not convincing.
3. Cox and Katz (2002) state that redistricting caused the rise of legislators incumbency advantage after the 60s.
4. McKelvey and Riezman (1992) argue that seniority tends to create a disincentive to vote for challengers.
5. See Persson and Tabellini (2000, chapter 4) for a survey of the incumbents accountability literature.
6. Except for i such that $x_i = 0$ and for i such that $x_i = 1$.
7. Although this can be doubtful, we need to suppose that promises are implemented by the elected party (as supposed in most of political models).

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