

# A MODEL OF POLITICAL HONESTY, OR: EVERY COUNTRY GETS THE POLITICIANS IT DESERVES

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ABSTRACT. This paper presents a model of interaction between voters and politicians in which there is asymmetry in access to information about certain key variables (performance of the politician). Misrepresentation of these variables by ‘the politician’ (lying) is derived in equilibrium.

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## 1. INTRODUCTION

The dishonesty of politicians is a well known and age old complaint. Their venality and corruption running a close second. But with whom does responsibility for this state of affairs lie? Often it is ascribed to unalterable laws of nature or to the moral quality of those who choose to become politicians. However, it seems reasonable to imagine that politicians are responding to the incentives they are offered. And in that sense are a reflection less of some peculiarly degraded form of humanity but rather the populace that elects them. As the saying goes: every country gets the politicians it deserves<sup>1</sup>

## 2. THE MODEL

Have a single performance variable  $x$ . Higher values of  $x$  indicate better performance. There is a single politician agent P who is directly or indirectly responsible for outcome  $x$ . Voters/Citizens are indexed by the unit interval and divide into two types:  $V_1$  and  $V_2$  with a proportion  $\alpha$  of voters being of type 1.  $V_1$  agents are *uninformed* while  $V_2$  agents are *informed*. In the model informed agents know the true value of  $x$  while uninformed voters do not. The model unfolds as follows:

- (1) The value of  $x$  is realized. Denote this true value of  $x$  by  $x^*$ . P and  $V_2$  agents now know  $x^*$ .

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<sup>1</sup>The source of this quote has proved difficult to track down. One (unconfirmed) suggestion for its authorship is the feminist and anarchist Emma Goldman. According to the Oxford Dictionary of Quotations, (Fifth Edition) Joseph de Maistre stated that “Toute nation a le gouvernement qu’elle merite.” (“Every country has the government it deserves”), Lettres et Opuscules Inedits, (1851) vol. I, letter 53, 15 August 1811, which is a close match but not an exact one (my thanks go to David Berry making me aware of this). Any more information regarding the origin of this aphorism is gratefully received (my email address is at end of paper)

- (2) P makes an announcement claiming value  $x_c$  for  $x$ .
- (3) Using the information available to them, voters form their individual ‘approval rating’ of the politician (See below for details of how voters form their ‘approval rating’). An (societal, overall) for P is then formed by formed by straightforward aggregation of individual approval ratings (an approval rating is a non-negative real number)

How do voters decide on their approval rating? Uninformed voters possess a simple rule: they have a function  $f$  and take true  $x$  to be  $f(x_c)$ . They also possess an ‘approval’ function  $g(y)$  that represents their approval of a given outcome  $y$ .

Informed voters also use  $g$  for forming approval (using  $x^*$  of course) but they also know about the politician’s lying and have preferences over that. This is represented by a function  $-h(l)$  where  $l$  is the amount of lying.  $h$  and  $g$  are both increasing functions of their arguments. It is assumed that P has full knowledge of the structure of the situation including these all of these functions.

The functions  $f, g, h$ . As already stated  $g, h$  will be increasing in their arguments. It also plausible that  $f$  will be (at least up to some bound). To settle on a concrete formulation we take:

$$(2.1) \quad f(y) = a_1 y$$

$$(2.2) \quad g(y) = a_2 y^2$$

$$(2.3) \quad h(l) = a_3 l^2$$

2.1. **Discussion.** Examples for performance variable  $x$ :

- (1) management of the economy (some combination of actual GDP growth and how tough things were)
- (2) handling of a crisis (e.g. foot and mouth in Great Britain, flooding ....)
- (3) unemployment levels (although the figures are output by a semi-independent agency there are the usual issues about manipulation of criteria etc)

## 3. SOLVING THE MODEL

P's problem is:

$$(3.1) \quad \max_{x_c} (\text{approval}) = \max_{x_c} (\alpha * g(f(x_c)) + (1 - \alpha)(g(x^*) - h(x - x^*)))$$

The first order condition for this problem is: ( $h(l)$  is differentiable for  $l > 0$ )

$$(3.2) \quad \begin{aligned} \alpha * g'(f(x))f'(x) - (1 - \alpha)(h'(x - x^*)) &= 0 \\ \Rightarrow h'(x - x^*) &= \frac{\alpha}{1 - \alpha} g'(f(x))f'(x) \end{aligned}$$

Using the functions suggested above this gives:

$$(3.3) \quad x = \left(\frac{2a_3}{2a_3 - C}\right)x^*$$

where

$$C = \frac{\alpha}{1 - \alpha} 2a_2 a_1^2$$

In equilibrium the uninformed rule of thumb expectations must be correct:

$$\begin{aligned} \Rightarrow a_1 x &= x^* \\ \Rightarrow a_1 \frac{2a_3}{2a_3 - C} &= 1 \end{aligned}$$

## 4. CONCLUSIONS

**Lemma 4.1.** *We will have lying in equilibrium. Moreover lying increases with the proportion  $\alpha$  of  $V_1$  (uninformed) voters.*

*Proof.* Lying consists of  $x > x^*$ . Now,

$$C > 0 \Rightarrow \left(\frac{2a_3}{2a_3 - C}\right) > 1 \Rightarrow x > x^*$$

But we do have  $C > 0$  so  $x > x^*$  QED. □

Here dishonest behaviour by politicians is a response to incentives. When some part of the population is uninformed, even when there is a cost to lying, it is worthwhile to misrepresent outcomes. It is worth considering briefly the welfare implications.

If lying involves costly exertion of effort (or in more complicated setup where voter monitoring is costly) lying will involve direct costs (rent-seeking of a kind). More importantly ‘real’ welfare is a function of ‘real’ outcomes not of those reported.

In this model lying has no impact on ‘real’ outcomes so that other than the diversion of effort already mentioned there will be no welfare costs. However in actuality one might imagine that there will be an indirect impact on welfare. By not knowing the true quality of the politician and the true outcomes voters may fail to obtain the best person for the job or optimal performance from that person (cf. the imperfect information literature and principal agent theory). This will be the indirect impact on welfare and could be very substantial.

## 5. IMPROVEMENTS AND EXTENSIONS

- (1) Different approval and predictor functions. More complex prediction setup (for uninformed)
- (2) Derive voter behaviour explicitly (cost of being informed ...)
- (3) Repeated game
- (4) Stochasticity for variables
- (5) Different politician types

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