

Discussion Paper No. 739

ON THE PERNICIOUSNESS OF DIRECT ELECTIONS
IN ORGANIZATIONS DEMOCRATICALLY RULED BY
IMPERFECTLY INFORMED MEMBERS

A single-agent multiple-principal agency problem

by

Virgilio Rodriguez*

August 1987

*The author is a doctoral student of decision sciences at the Managerial Economics and Decision Sciences (MEDS) department of Northwestern University's J. L. Kellogg Graduate School of Management.

The author gratefully acknowledges financial support from Prof. Morton I. Kamien's Harold L. Stuart endowed chair at Northwestern University.

ON THE PERNICIOUSNESS OF DIRECT ELECTIONS
IN ORGANIZATIONS DEMOCRATICALLY RULED BY IMPERFECTLY INFORMED MEMBERS

A single-agent multiple-principal agency problem

by

Virgilio Rodriguez

Abstract

In this article, the incentives of executives of democratically ruled organizations to efficiently select actions are examined. In a certain (particular) sense, incentive considerations are, in this work, introduced into the analysis of public choice. The paper is focused on a democratically ruled organization in which the voters possess only partial - and dissimilar - information about the "potential consequences" of the actions considered by the chief executive. As the voters cannot infer, from observing the selected (course of) action, the informational basis of the selection, they opt to base "on the best of their knowledge" their judgement of the selection. The executive, then, - fearing his no reelection - rather than selecting the course of action optimal under the light of his (by assumption) superior information, takes that favored by the poorly informed majority. This problem is the center of this work.

By conception simple - yet rigorous -, a conceptual framework - which can well be viewed as a formal model of electoral (in particular, political) behavior under imperfect information in a democratic milieu - is, in this work, constructed to analyze the problem introduced above. Within this framework, a solution for the problem is proposed.

1. INTRODUCTION.

A particularly important family of organizations is that of those democratically ruled. In these organizations, chief executives are selected through canvassing the opinion of eligible members of the organization. In general, once elected, executives are offered a contract for a fixed period of time. At the end of this period, eligible members of the organization vote to determine whether or not, in light of the executive's actions, the executive's contract is to be renewed. If a sufficiently large number of members approve the executive's performance, the executive is offered - under similar conditions - an additional term in office.

In terms of the incentives involved, the contract described above can be, perhaps simplistically, viewed as a renewable, "incentiveless" subcontract. The executive is normally offered a fixed compensation for his services during the period for which he has been elected. This compensation is usually not attached to the executive's performance. Performance plays a role only at the end of the period, when the voters decide whether or not to retain the executive for another period. Assuming that the executive would always prefer his to any other available position, the executive's incentives to perform properly rest, then, in essence, on his aspiration to remain in office.

Under more than one circumstance, the above incentive scheme will engender conflicts between the executive's interests and the best interests of the organization. In particular, such a conflict will arise when a significant proportion of the voting members of the organization lack the necessary proficiency (in form of cognizance of essential information and/or

possession of relevant knowledge) to properly evaluate the effects of the executive's actions. Under those circumstances, situations are realistically conceivable under which a poorly informed majority pressures, to its own detriment, the executive to make an inefficient selection of actions.

The inefficiencies are essentially caused by the imperfectness of the voters' information about the potential consequences of the different courses of action considered by the executive, and by the voters' inability to infer, from observing the selected course of action, the executive's "motivations" in its selection. In spite of their imperfect information, voters base the evaluation of the executive's actions on "the best of their knowledge". That is, a voter compares the available courses of action on the basis of the "expected consequences" of each of them given the voter's information and beliefs. The voter does not simply assume that the course of action taken by the executive is the optimal - which would be equivalent to electing the executive for life !! -, as s/he cannot determine, from observing the selected course of action, the "reasons underlying" its selection. For instance, if the action taken by the executive differs from the voter's "favorite", s/he cannot determine whether the difference is due to the fact that the selected action is optimal under superior information that s/he does not possess (and is inaccessible to her/his) or due to the fact that the executive simply did not (for instance, "spend enough effort" to) select the appropriate course of action.

The problem transcending above appears to possess a surprisingly simple representation. Let it be called "the parable of the anxious, convalescent tyrant". Partially narrated, it is the story of a tyrant attacked by a

painful disease whom, in his eagerness to recover health, conceives a very "persuasive" incentive scheme for his physician. The physician is to select a suitable therapy for the tyrant's illness; however, the physician's "compensations" are contingent upon the "state" of the tyrant - as perceived by the tyrant, himself - a (given time) period after the therapy begins. If by that time the patient "feels better", the physician will be "rewarded" (at least with his life), otherwise the doctor will be "severely punished" as incompetent. The problem arises as the treatment that can really cure the painful illness will not have induced, after a period, observable progress in the tyrant's health.

This work is centered around the (incentive) problem introduced above. Firstly, a conceptual framework is constructed to formally approach the problem. Simple by conception, this framework can, nevertheless, be viewed as a modest contribution, as it formally - yet tractably - captures electoral (in particular, political) behavior under imperfect information in a democratic milieu. Secondly, a major problem affecting organizations democratically ruled by imperfectly informed voters, the pernicious pressure exerted by poorly informed majorities, is made formally transparent. Thirdly, as an apparent digression, the destructiveness of basing elections on policy-focused pre-electoral canvass is demonstrated. This observation, of significant intrinsic value, ultimately bears significant contextual importance. Finally, after devoting some attention to some appealing "pseudo-solutions", a solution for the problem is proposed.

2. CONCEPTUAL FRAMEWORK

This section is devoted to introducing the conceptual framework under which the problem of the inefficient incentive scheme faced by chief executives of organizations democratically ruled through the direct electoral participation of imperfectly informed members is formally approached. In presenting the framework below, the attention is initially directed toward the organization, as a whole. Subsequently, the discussion is focused on the agents participating in the direction of the organization.

2.1. Organization Representation

The organization is viewed as a system subject to control. As in standard dynamic programming settings, there exists a set S of states at which the organization may be at any point in time. For each state, s , there exists a set A(s) of feasible, mutually excludible actions¹. The organization transits among states influenced by the actions taken. Actions are to be taken as to "guide" the organization toward "the most desirable" (reachable) state.

Two simplifying statements are immediately made. First, it is assumed that every $A(s)$ is a finite set. Second, it is supposed that exactly one action is to be taken "shortly after" the beginning of every period. The organization discretely transits ("jumps") to another state "just at the beginning" of the following period.

2.2. Agents Characterization

For the purposes of this work, the agents participating in the direction of the organization can be divided into two groups. The first of those groups is integrated by the chief executive of the organization. The

¹It is to be observed that the actual significance of the word "action" is rather "course of action". Throughout the article, the word "action" and the phrase "course of action" are used interchangeably.

other group is that of the voters.

Each one of the organizational agents is characterized by his/her preferences and his/her information. In the sections below, attention is given to these two concepts.

2.2.1. Preferences of the Agents

As to avoid unnecessary "notational" complications, the problem is artificially made "(a problem of comparative) static", by assuming that preferences are "myopic". As the paper develops, it becomes evident that, while this assumption greatly simplifies "the language" of the paper, it exerts scarce - if any - conceptual influence on the development of the paper. Under a similar scope, the executive is preferentially depicted as an "outsider", who maximizes his preference under "the law of the least effort". Below, these ideas are more formally expressed.

2.2.1.1. Voters' preferences

To simplify the dynamics of the problem, it is assumed that, in evaluating the suitability of an action, the voters only consider the immediately following state. This is somewhat equivalent - in the terminology of dynamic economic models - to assuming that "preferences are "(time) separable", and the "discount factor" is zero for every period beyond the next".

More formally, any given voter has preferences on the set $A \times S'$ of pairs of action and (resulting) state. It is assumed that those preferences are represented by a cardinal utility function. As the effect, on the executive's behavior, of informational - as opposed to preferential - differences among the voters is the focus of this work, it is further assumed that there is a single utility function, $u()$, that represents the preferences of every voter². This function can also be interpreted as a benefit, welfare, or "collective utility" function determined by consensus.

2.2.1.2. Executive's preferences

The executive's preferences are "primarily" dependent upon his perception of three elements : the future, his compensations, and his investment of effort. Some attention is given below to those elements.

As to the future, it will be simply said that - analogously to the voters' preferences - the executive's preferences are also assumed to be such that he is concerned only about "his immediate future".

The executive's compensations - which are meant to include any "personal satisfactions" that the executive may derive from the position -, are supposed to be fixed for the period. Also by supposition, the compensations are larger than those he would receive from any other position available to him. For instance, the "overall utility" that the executive derives from his position can be expressed as 1, while 0 can express the "overall utility" that the executive would derive, should he lose his position.

No major devotion of attention to the analysis of the effect of effort on the executive behavior is, in this work, made. Such effect has, in the concerned literature, been already extensively studied. For the purposes of this article, it will be simply assumed that the executive is willing to make as much effort as necessary - but not more than it is necessary - to retain his position.

²This assumption is not as "unrealistic" as it may appear to be. It is the case that in most practical contexts, for any given "issue", there are always members with "special interests". However, the electoral effect of those "special interest groups" might well be negligible, as the number of members in them is typically small as compared to those possessing "collective interests".

2.2.2. Agent's Information

2.2.2.1. Information representation

Elections are supposed to be held "shortly before" the end of every period. By that time, individuals need, in general, not yet know "all the consequences" of the action(s) taken. That is, they need not know the state where the organization has transited to. Let it be supposed that the organization is at state \underline{s} , and the action \underline{a} is considered. As far as action \underline{a} is concerned, the informational level of a particular individual is "measured" by his ability to predict (or closely "estimate") "the consequences of the action" (i.e., the utility of the pair (a, s') , where s' denotes the state where the organization will transit to after the action \underline{a} is taken). If action \underline{a} is fixed, the function $u_a(.) = u(a, .)$ defines a utility (benefit or consequence) function on S . Thus, the level of information of a particular individual with respect to action \underline{a} can be equivalently "measured" by his ability to predict the value of u_a on S .

Let F_a denotes the smallest σ -algebra that makes u_a measurable. Then, to know, for each set in F_a , whether or not the set contains the resulting state permits to determine the resulting value of $u_a()$. Thus, F_a is the minimum amount of information necessary to "know the consequences" of the action \underline{a} . The information of a perfectly informed individual (an "expert", for short) is represented by F_a . The expert can determine, from observing the current state s , which of the sets in F_a would contain the resulting state s' and which ones would not; accordingly, he can foresee "the consequences" of the action \underline{a} . The "information" of a "completely uninformed" individual (an "ignorant", for short), is then to be represented by the trivial σ -algebra F_0 , which is just $\{S, \emptyset\}$. Thus, an ignorant can only "foresee" that the resulting state will be in the state space and not in the empty set; i.e., he can only

"predict" that the resulting state will be some state !!

2.2.2.2. Voters' information

Still in regard to action a, the information (education, or proficiency) levels among voters is (objectively) represented as an increasing sequence of σ -algebras converging to or "bounded" by F_a . For instance, the information - about action a - of the least informed voter is represented by the σ -algebra F_{a_1} . Accordingly, from observing the current state, he can determine, for each set in F_{a_1} , whether or not the set would contain s' if action a were selected. As to interpersonal comparisons of information, an important assumption on the ordering of dissimilar "bundles" of information (by quantity and relevance) is made below.

On the objectivity of "expertise". In many contexts, the actions considered at a particular state are "informationally connected" in the sense that an individual possessing "superior" information about a particular action also possesses "superior" information about the other alternative actions. It is assumed that, if the above "informational connectedness" is not present, there exists an objective rule to assess the "quantity and relevance" of dissimilar information. That is, at any given state, the voting members of the organization can be partially ordered by the "quantity and relevance" of their information. Thus, it can, with every member, be associated some objective "index of expertise", reflecting the "quantity and relevance" of the member's information (as compared to the "quantity and relevance" of each of the other voting members' information).

2.2.2.3. Executive's information

It is assumed that the executive possesses the maximum available information concerning every feasible action. Furthermore, it is assumed that he possesses enough information about the preferences and "beliefs" of the

voters as to - for simplicity, "costlessly and effortlessly" - determine, for any considered action, whether or not, in case he selected that action, he would receive enough votes as to be reelected.³

3. DEMONSTRATING THE PERNICIOUSNESS OF THE IMPERFECTION OF VOTERS' INFORMATION

In this section, a formal demonstration of the pernicious pressures that a poorly informed majority may exert on the executive's behavior is provided. To that effect, the behavior of each type of organizational agent is examined in the subsections below. Afterwards, a formal illustration is presented.

3.1. Agents' Behavior

3.1.1. Voters' Behavior

In order to characterize voters' behavior, it is assumed that the voters cannot determine (or "observe") the informational bases of the executive's decisions; moreover (accordingly?), any given voter approves the executive's performance if and only if the executive has selected the action that, given the voter's information, was optimal. The significance of the assumption is that, while the voters can observe the action taken by the executive, they cannot determine "upon what basis" the action was selected. They then base their judgement of the executive upon comparing - "to the best of their knowledge" - "the potential consequences" of the executive's action, with the "potential consequences" of the other alternatives.

Let action a, and the behavior of a voter with information $F_{a_k} \subset F_a$ be, under the above assumption, considered. As this voter does not possess perfect information, he must base his evaluation of (the suitability of) the

³These assumptions are technically consistent. Since the σ -algebra associated with the information (concerning any given action) of any particular voter is contained in the executive's corresponding σ -algebra, the voter's conditional expectation with respect to his σ -algebra is measurable with respect to the executive's larger σ -algebra.

action \underline{a} upon his best "estimate" or "guess" of the value of u_a given his information. That is, he must determine his (a version of the) conditional expectation of u_a given F_{a_k} or $E\{u_a/F_{a_k}\}$. This expectation is taken with respect to his (subjective) probability measure on F_a . For instance, if the voter is an "expert", then F_{a_k} is equal to F_a , and his conditional expectation of u_a given his information is (a.s.) equal to the "true" resulting value of u_a . If the voter is, conversely, an "ignorant", then F_{a_k} is just the trivial σ -algebra (i.e., the voter only "knows" that, if \underline{a} is selected, the organization will transit to some state!), and his conditional expectation of u_a given his "information" is (a.s.) equal to the "plain" expected value of u_a (with respect to his subjective probability measure on F_a).

Based upon the conditional expectations described above, the voter can "rank" the available actions and determine which one is - "to the best of his knowledge" (i.e., given his information) - the "most promising". Upon this basis, he then makes his electoral decision.

It is to be noted that voters' behavior may also be assumed to be centered around some "minimum (conditional) expected benefit" of the (state resulting from the) selected action. That is, a voter can be assumed to approve the executive's performance if and only if, "to the best of the voter's knowledge", the expected benefit of the state resulting from the executive's action is greater than or equal to some "reservation value". This approach, however, must be conceptually equivalent to the one implemented in this work, as any voter would, expectedly, base his reservation value on an analysis of the "potential consequences" of all actions available to the executive.

3.1.2. Executive's behavior

Under the assumptions that have already been made, the executive's

preferences over the set of feasible actions can be clearly defined. He obviously prefers any action that guarantees his reelection to any other that does not. Furthermore, he is indifferent between any two actions each of which allows him to retain his position or between any pair of actions each of which causes him to lose his position. A utility maximizing executive, thus, selects any action that permits him to retain his position!!⁴

This behavior may appear unrealistic in the sense that it would be expectable that the executive would either select the "best" of the actions that guarantee his reelection - if anyone does - or the optimal action, if none does. In this respect, two points are to be emphasized. First, the executive's utility has been supposed not to be dependent upon the organizational "benefit" function. Second, the fact that the executive is indifferent between actions that either allow him to retain his position or cause him to lose it is just a reflex of the executive's underlying "dislike for effort". If he has no incentives to select the "best" of a set of actions, he just selects one at random!

3.2. A Formal Illustration of the Problem in Question

In a certain sense, the destructiveness of the "ignorance" of the voters has already been shown. As established in the previous sections, if a course of action is perceived by a majority as optimal (i.e., if a majority of the voters find that, given their respective information, a particular course of action "looks the best"), regardless of whether or not that is the course of action optimal under the maximum available information, the organization is taken through that course. As a consequence, the selection may well be

⁴Notice that, if the approval of more than half of the voters is needed for the executive's reelection, no more than one action (and possibly none of them!) can guarantee reelection.

"informationally inefficient", as it may be clear - under perfect (or superior) information - that a greater utility would be (expectedly) derived, if another course of action were adopted. Thus, selecting this other course of action would actually increase everyone's (conditional expected) utility !!

Of course, an example of the above situation can be constructed.

Let the state space S be the unit interval.

Let I be an interval of positive (Lebesgue) measure in $(0,1)$.

Let s' and s'' be points in I .

Let u_1 and u_2 be real value functions on $(0,1)$ such that :

- i) $u_1(s') > u_2(s'')$, yet,
- ii) $E\{u_2/I\} > E\{u_1/I\}$ with respect to the Lebesgue measure.

Let it now be considered a situation in which, at some state s_0 , two actions, 1 and 2, form the feasible set. Let s and s' be the respective resulting states and u_1 and u_2 be the corresponding "benefit" functions. Let it be the case that, although there exists a minority of "experts", the "majority" can only foresee whether or not the resulting state would be in the set I .⁵ Also, let the Lebesgue measure represent the majority's "beliefs". Then, clearly, the majority pressures the executive to select action 2, while every one would be better off if action 1 were selected !!

The fertility of the reader's imagination will not be (additionally ?!) insulted by showing specific examples of functions with the characteristics of u_1 and u_2 under a specific choice of the interval I and the points s' and s'' .

4. A DIGRESSION : THE PERNICIOUSNESS OF POLICY-FOCUSED PRE-ELECTORAL CANVASS

Before presenting a solution to the problem under discussion, a digression will be, seemingly, committed by paying attention to pre-electoral

⁵ Thus, the majority's information about the consequences of either action is represented by the σ -algebra generated by the set I .

canvass or "campaign", as commonly termed. Thus far, the process through which the executive is originally selected has been purposely ignored. The attention has, up to this point, been directed toward the issue of whether or not the executive is to retain his position. In a sense, the electoral behavior of a democratically ruled organization is being depicted as if the voters first voted to determine whether to retain the executive and then, if necessary, voted again to select another executive. No effort shall be devoted to analyzing whether this approach to electoral behavior is, in every context, adequate. However, some attention will be paid to an electoral process aimed at selecting, from a finite set of candidates, the individual that would occupy, for a period, the position of chief executive of the organization.

The sections below are devoted to demonstrating, under the framework developed in the previous sections, the perniciousness of electing the executive on the basis of the candidates' policy-oriented campaigns. First, contextual significance is attached to relevant terminology. Next, voters' behavior is described. Finally, by examining the behavior of the candidates, the perniciousness of basing the selection of the executive upon the candidates' policy-focused pre-electoral canvasses is made transparent.

4.1. Terminological Notes

Under the previously developed framework, the term "policy" is to be interpreted - like in the standard dynamic programming terminology - as a rule assigning to each state a feasible action. Thus, the phrase "policy-focused pre-electoral canvass" is to be taken to signify a candidate's disclosure of the action(s) that he would select at (a) given state(s). An "election based upon the candidates' policy-focused canvasses" is one in which the informational bases of the candidates' "programs of government" is

nonobservable to (or simply ignored by) the voters. In such elections, a candidate's "program of government", which - in this context - is the action that he would take if elected, is the only electorally relevant characteristic of the candidate.

4.2. Voters' Behavior

To characterize voters' behavior, two assumptions are made. First, It is assumed that every voter considers that the "program of government" of the elected candidate will actually be implemented. This is just a simplifying assumption. Second, as, by hypothesis, the voters cannot determine (or "observe") the informational bases of the candidates' proposals, it is assumed (it follows ?!) that any given voter selects the candidate whose "program of government" is, "from the voter's perspective" (i.e., given the voter's information), the "most promising". The significance of the assumption is that the voters cannot determine "upon which bases" the "programs of government" have been conceived. They, then, base their judgements of the proposals upon what - "to the best of their knowledge" - are "the expected consequences" of the proposed actions.

Formally, let \underline{a} be a proposed action, and let the behavior of a voter with information $F_{a_k} \subset F_a$ be, under the assumptions above, considered. As this voter does not possess perfect information, he must base his evaluation of (the suitability of) the action \underline{a} upon his best "estimate" or "guess" of the resulting value of u_a . That is, he must determine his (a version of the) conditional expectation of u_a given F_{a_k} or $E\{u_a/F_{a_k}\}$. This expectation is taken with respect to his (subjective) probability measure on F_a . Based upon this conditional expectations, the voter makes his decision by "ranking" the candidates' proposed actions and determining the one that, "to the best of his knowledge", is the "most promising".

4.3. Candidates' Behavior

4.3.1. Candidates' Preferences

The first step toward characterizing the candidates' behavior is to describe the candidate's preferences. A very concise description is provided : the candidates' preferences are (not surprisingly!) equivalent to those of the executive of section 2.2.1.2.

4.3.2. Candidates' information

In this regard, it is assumed that any candidate possesses the maximum available information concerning every feasible action. Furthermore, it is assumed that he possesses enough information about the preferences and "beliefs" of the voters to determine, for any member of the set of feasible actions, the number of voters regarding that action as the "most promising" of the set.⁶

4.3.3. Candidates' Choice

Under the assumptions above, the candidate's preferences over the set of feasible actions are clearly defined. In fact, his preferences can be represented by the function assigning the number 1 to the most "popular" action, and zero to any other feasible action. A utility maximizing candidate, thus, proposes the "most popular" action, i.e., the "most promising" action under "the majority's" information. The candidates, then, simply "play the music the people want to hear"!!

Immediate attention is to be given to the apparently counterintuitive (and, possibly, "counterempirical") implication that all rational candidates must propose identical programs of government !! This implication, however,

⁶These assumptions are technically consistent. Since the σ -algebra associated with the information (concerning any given action) of any particular voter is contained in the candidate's corresponding σ -algebra, the voter's conditional expectation with respect to his σ -algebra is measurable with respect to the candidate's larger σ -algebra.

is rather highly intuitive, as candidates can, by assumption, predict the "public reaction" toward every "viable initiative". As to the "realism" of the implication in regard to situations that the reader might have observed, the reader's attention is directed toward the "actual relevance" of the discrepancies that the "observed" programs of government might have displayed, the "competence" of the corresponding candidates' "marketers", or even the "rationality" of the "observed" candidates, among other issues outside the scope of this work.

5. PROPOSING A SOLUTION

This section is devoted to proposing a solution for the problem posed by the inefficient incentive scheme faced by executives of organizations democratically ruled - through direct electoral participation - by imperfectly informed members. However, before introducing the proposed solution, four intuitively appealing courses leading to "pseudo-solutions" are explored and abandoned in the section below. Subsequently, the solution is formally proposed.

5.1. Appealing Pseudo-solutions

The first of the pseudo-solutions to be mentioned arises through the naive question : "why do voters not simply "trust" the superior information of the executive?". If the voters mechanically assumed that the action selected is optimal under superior information, they would in fact be recognizing the executive as an "executive-for-life". While strong "moral-hazard-based" arguments could be constructed against this proposal, it is, in this work, rejected on the basis that it would technically make the executive indifferent to any course of action.

The second pseudo-solution is almost the "antithesis" of the first : prohibiting reelection. Although this proposal is also "intuitively

unappealing", as it may provoke the "premature departure" of an "irreplaceably good" executive, it is, here, discarded on nearly the same "merits" as the previous one : it technically makes the executive indifferent to any course of action.

At this point, a reader familiarized with standard optimal-contracting procedures may be suspecting that the true solution is to be found through "maneuvering" the executive's compensation. Through this procedure, though, only a pseudo-solution could be found as the organization would ultimately "end up paying for the ignorance of the voters".

It, now, appears that a "true" solution can only be attained by requiring that the voters be "experts". This last proposal is, indeed, the closest one to a "true" solution. Rather than arguing on its "impracticability" or its "potential moral hazard", it is simply assumed that the acceptance of such a proposal would violate "fundamental philosophical principles" of the organization.

5.2. A Solution Through Indirect Elections

As hinted by the title of this article, the main step toward a solution is the introduction of a two-stage indirect election. In the first stage, which is now denominated delegacy, a "reasonable" number of evaluators are to be selected. In the second stage, to be referred to as appraisal, the evaluators judge, through their approval or disapproval votes, the executive's performance. Delegacy is the crucial stage of the election; accordingly, special attention is given below to matters connected to this stage. Then, after making some pertinent remarks on the appraisal, the executive's behavior under the proposed electoral system is examined. Through this exam, the problem center of this work is shown to disappear under the proposed system.

5.2.1. The First Stage of the Electoral Process : Delegacy

The discussion on the first stage of the electoral process will be initiated by addressing some procedural matters related to this stage. Then, the behavior of the first-stage voters, who are formally denominated delegators, is analyzed.

5.2.1.1. Procedural matters

As to procedural matters about the delegacy, a concern immediately arising is the "reasonability" of the number of evaluators. While determining the optimal magnitude of the number of evaluators (i.e., the number of positions in the Chamber of Evaluators) bears both theoretical and practical interest, no much attention is given to that issue in this work. For the purposes of this work, this number must simply be less than or equal to the number of voters possessing the highest observed "index of expertise". Other than that, it is just remarked that that number is to be "wisely determined".

To guarantee that the indirect election actually solve the problem in question, two rules about the delegacy are, yet, to be imposed. First, while every voting member of the organization is eligible to compete for a position in the Chamber of Evaluators, no policy-focused preelectoral canvasses in connection to the election of the evaluators shall be permitted. (See the "digressive" section 4.). Pre-delegacy canvass shall instead be based upon the "amount and relevance of the candidates' knowledge". That is, delegators shall only observe the candidates' "indeces of expertise". Second, positions in the Chamber of Evaluators are to be honorary. No compensations - other than "the pleasure of evaluating" - shall be offered to the evaluators for their function, which shall not be extended beyond the execution of the

appraisal.⁷.

5.2.1.2. Delagators' behavior

In order to characterize the behavior of the voters in the first stage of the elections, it does become necessary to make a very weak "rationality assumption" about them. This assumption is stated below.

On voters' appreciation for expertise: Any voter facing a choice between two candidates strictly on the basis of each candidate's information is assumed to select the best "relevantly" informed candidate. That is, the voter selects the candidate possessing the higher "index of expertise".

5.2.2. The Second Stage : Appraisal

No special conditions are imposed on the execution of the appraisal. Likewise, no additional assumptions are made with respect to the electoral behavior of the evaluators. Evaluators simply observe the same behavior that they would observe in a direct election under the previous system.(See section 3.1.1.)

5.2.3. Executive's Behavior

An analogous observation to that made above in regard to the behavior of the evaluators is now made with respect to the executive's behavior. The executive's behavior remains unchanged as he possesses the same preferences on the set of action. Accordingly, the problem is solved! This is discussed below.

Paradoxically as it may sound, the fact that the executive's criterion to select actions is not altered under the proposed system actually guarantees the disappearance of the problem. For clarity of exposition, let it be supposed that there are experts in the organization. As experts are cognizant

⁷ This condition is imposed to hamper the development of plausible situations in which incentive considerations may distort the function of the evaluators.

of the influence of the voters on the executive's decisions, it is in the best of the experts' interests to participate as candidates in the first stage. Now, given the rules of the delegacy and the behavior of delegators, all the evaluators will be ultimately experts! It must, now, be clear that it is in the best interests of the executive to take the course of action that the experts would approve. Thus, the executive is pressured to (spend enough effort to) determine the optimal course of action under the maximum available information and ultimately adopt that one.

6. CONCLUDING REMARKS.

While universal, equally weighted participation in the executive evaluation may, at first glance, appear an excellent evaluating procedure, it is clearly senseless in those cases in which the ability to properly evaluate the executive's actions acutely differs across the voting members of the organization. Even without a theoretical apparatus, it should be obvious that equally weighting votes of individuals highly qualified to evaluate the executive's actions, with the votes of those who are much less proficient in performing the evaluation in question must induce serious inefficiencies in the functioning of the organization. When the problem is formally viewed from the perspective of the incentive scheme faced by the executive, the existence of the inefficiencies in question becomes transparent.

In this paper, serious attention has been given to the above problem. The conceptual framework developed to pursue the solution of the problem may well constitute, by itself, a modest contribution. Being essentially simple, it formally captures a very complex process - electoral behavior under imperfect, asymmetric information in a democratic setting - in a tractable manner. Under this framework, the perniciousness of the incompleteness of the voters' information is made formally transparent. An apparent digression

that proved ultimately to bear significant contextual importance is the discussion found in the fourth section. In this section, the perniciousness of basing elections on the candidates' policy-focused preelectoral canvasses is demonstrated by showing that candidates, far from denouncing - in their canvasses - widespread misperceptions, overtly embrace them. This observation appears to possess significant independent value. Finally, after paying some attention to some "intuitively appealing pseudo-solutions", a seemingly "implementable" solution to the problem is proposed.

As stated in the introduction to this article, the problem under discussion possesses an incredibly simple representation. The solution is not less simple. Let it be, again, considered the parable of the "anxious, convalescent tyrant". As the reader may recall, it is the story of a tyrant attacked by a painful disease whom, in his eagerness to recover health, conceives a very "persuasive" incentive scheme for his physician. The physician is, as usual, to select a suitable therapy for the tyrant's illness; but, unusually, the physician's "compensations" are made contingent upon the "state" of the tyrant - as perceived by the tyrant, himself - a period after the therapy begins. The problem arises as the benefits induced in the tyrant's health by the best available remedies need not be, after a period of their application, observable to him.

The solution to the tyrant's problem is simple indeed. After a long and painful convalescence, he learns that, being himself an "ignorant" in medicine, he is not to evaluate himself (the effect of the therapy on) "his state". In order for his incentive scheme to properly function, he is to make the physician's "reward" contingent upon an evaluation to be performed by other "trusted and knowledgeable" physician(s). The solution proposed in this work is also simple. It consists of the creation of conditions under which

the voters ("patients") select experts ("physicians") to evaluate the "treatments" chosen by the executive.

Democratically ruled organizations face a formidable enemy : selfdestruction. A reader with a fertile imagination can conceive "uncountable" situations under which a leader of a democratically ruled organization, pressured by a poorly informed majority, does not take the course of action that, in view of the best interests of the organization, is appropriate. In reality, the problem is aggravated by the "cumulative effect" of the inefficiencies on time, and - even worse - by the fact that democratically ruled organizations often compete against others whose executives need not feel the pernicious pressures of poorly informed majorities. However, the problem is, in nature, "naive", and so is its solution. It is now to be hoped that all those organizations democratically ruled by imperfectly informed voters will, like the tyrant, happily end their selfinflicted torments.

As to the tyrant's story, it is to be added that its end was, in all respect, happy. The tyrant fully learned his painful lesson. After his recovery, he resisted the temptation of becoming, in gratitude to the Lord, a democrat. Instead, he became a "benevolent dictator" !!