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How to (s)elect the best policymaker. An experiment on democracy, meritocracy and lottocracy. *

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Abstract

The quality of the political decision ultimately depends on the intrinsic characteristics and incentives of the policymaker. In this experiment, we manipulate the selection procedure of the policymaker and we assess its impact on the quality/efficiency of the decision-making process. In particular, we compare democracy (the policymaker is elected after a non-binding political campaign) with meritocracy (the citizen who best performs in an unrelated task is appointed as policymaker) and with lottocracy (the policymaker is randomly selected among the pool of citizens). Results show that...

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1 Introduction

Does the mechanism of selection of policymakers affect the quality of the decisions they take? In many countries, the democratic mechanism that works through political campaigns and elections is often portrayed as the best possible (sometimes the least worst)among the ones available.

However political campaigns and elections are not without their issues. Indeed, often electoral competition has been associated with rent-seeking and pork-barrel spending which raises concerns about inequality and inefficiency in resource allocation (Mayhew, 2004; Myerson and Weber, 1993; Brams and Davis, 1974b).

Furthermore, rational choice theory radically questions the need for political campaigns and their huge associated costs on the grounds that campaign promises made by candidates are mere "cheap talk" which eventually results in sunk costs, allocation inefficiencies, and self-serving behavior (Barro, 1973; Przeworski et al., 1999; Ferejohn, 1986a).

While other studies suggested a correlation between political campaigns and respect promises in the policy allocation stage (Corazzini et al., 2014; Le Pennec and Pons, 2023), there remains skepticism within the literature. Critics argue that electoral processes constantly perpetuate inequality and may lead to inefficiencies in resource allocation due to the influence of interest groups and lobbies. In response to these issues, proponents of alternative selection mechanisms, such as sortition and meritocracy, emerged.

Sortition, or random selection, has been proposed as a cost-effective alternative to traditional selection mechanisms. Proponents emphasize its potential to promote inclusivity and representation in decision-making. Additionally, experimental studies involving randomly selected citizen assemblies demonstrated promising results in terms of decision quality and public perception, suggesting that sortition may break established patterns of resource allocation aimed at securing votes (Callenbach and Phillips, 1985; Fishkin, 2018; Mueller, 1976; Van Reybrouck and Waters, 2016). However, critics argue that sortition lacks the accountability inherent in electoral processes, potentially increasing the risk of corruption (Landa and Pevnick, 2021).

The concept of meritocracy obtained attention as another possible selection mechanism for policymakers. The aims of meritocracy is to select prepared politicians to reduce the influence of interest groups on decision-making. However, concerns have been raised about the positive potential for meritocracy, explaining that this system could exacerbate inequality in democratic governance (Breen and Jonsson, 2005a).

To test this, we conducted an incentivized lab experiment to empirically examine this hypothesis. The experiment compares the decisions regarding the distribution of a budget among three citizens by a policymaker selected via different mechanisms: sortition, meritocracy, and elections, using a generalized dictator game strategy (Brams and Davis, 1974b). Our approach incorporates the concept of pork barrel to measure both the amount of investment representatives allocate to

public service and the distribution patterns based on the promises made during campaigns. In our benchmark "Election" treatment, two candidates compete for office with simultaneous promises of monetary distribution to the citizens. The citizens, even if uncertain about representatives' behavior post-election, give the winner a budget for allocation. In the "Random" treatment, we eliminate electoral competition, replacing it with a random selection mechanism, while in the "Meritocracy" treatment, we eliminate both electoral competition and sortition, determining approval rates only through a meritocratic system using a standard effort task Abeler et al. (2011); Charness et al. (2018a).

These treatments enable us to understand if changing the selection mechanism results in more or less equal redistribution and under which circumstances both candidates and voters remain in equilibrium. Moreover, we incorporate an efficiency parameter to better understand this point. This research contributes to understanding the impact of electoral competition on resource distribution, thereby adding new elements to the academic debate on democratic institutions and analyzing alternative selection mechanisms to improve the efficiency of the system.

2 Related Literature

In political elections, the disciplining impact of impending reelections on incumbents is connected with the accountability and moral hazard perspectives (Barro, 1973; Ferejohn, 1986b; Key, 1966)

From an accountability perspective, recent studies have focused on the selection mechanism (Ashworth, 2005; Ashworth and Bueno De Mesquita, 2008; Ashworth et al., 2018; Besley and Ghatak, 2005; Gordon et al., 2007), emphasizing that elections are considered a mechanism for voters to choose competent and honest politicians, and at the same time, that the accountability mechanisms produce effects on these selections.

Additionally, a massive literature has focused on pork barrel distribution as a fundamental element in electoral dynamics (Milligan and Smart, 2005), producing both positive and negative perceptions in the literature (Braidwood, 2015; Michal Tóth and Spáč, 2022). According to Mayhew (2004), legislators pursue projects to claim credit with the electorate, and Myerson and Weber (1993) explores redistributive politics under alternative electoral systems. On the other hand, Brams and Davis (1974b); Snyder (1989); Brams and Davis (1974a) analyzed how candidates redistribute resources across electoral districts to obtain votes.

All of these theories based on rational choice theory did not give much importance to the political campaign, which was seen as pure cheap talk. However, in 2014, Corazzini et al. made a contribution by presenting empirical evidence that elections go beyond being mere selection and sanctioning devices, carrying motivational benefits. This work considers the psychological concepts that form the basis of political campaigns, emphasizing how there is a cost that candidates could incur to break political promises (Le Pennec and Pons, 2023).

However, as mentioned before, another point that seems to be relevant in the analysis of political elections is the quality of redistribution/investment and whether it produces inequality and follows pork barrel procedures or not. In their work, this latter component lacks specific examination. For this reason, the aim of this paper is to extend Corazzini's framework by incorporating the pork barrel theory and understanding which selection mechanism the system is more efficient.

Pork barrel mechanisms are often allocated neither effectively nor equitably. For example, public finances, strategically allocated by incumbents, serve as a tool for securing votes and reelection (Michal Tóth and Spáč, 2022). This phenomenon is justified by two key ideas: firstly, in a majoritarian selection election contest, choices are driven by self-interest, leading incumbents to invest in a group sufficient for re-selection; secondly, voters, aware of benefiting from pork barrel investment, express a preference for such allocations.

Through the current theoretical literature, we know that a random selection of politicians may contribute to a reduction in pork barrel activities, disrupting established patterns of resource allocation aimed at securing votes (Mueller, 1976). This system indeed has the capacity to offer public scrutiny, preventing the domination of decision-making by elites during crucial stages of policy development (Bagg, 2024). It is an alternative to the traditional electoral process that could produce inclusivity and better representation (Callenbach and Phillips, 1985; Sintomer, 2023, 2010), distributive justice (Boyle, 1998; Broome, 1984; Goodwin, 2005; Stone, 2011), and improve democratic decision-making (Pirenne-Delforge and Wecowski, 2023; Carson and Martin, 1999; DeLong, 1991; Dowlen, 2009; Mueller et al., 1972)

However, Corazzini et al. (2014) empirically demonstrate that random selection tends not to allocate significant resources. In the context of a campaign, candidates in a strategic competition tend to promise a low percentage of their budget for the public. This strategic approach is based on considerations to avoid lying aversion and the absence of an accountability mechanism, leading to minimal investment. The Corazzini et al. approach, while giving us information on the relation between political campaigns and selection, does not provide data on how the allocation is efficient and how much it follows an egalitarian perspective. Indeed, even if the promises made in the campaign stage are less relevant compared to the benchmark, it could be possible that the distribution of the candidates who decide to invest is more equal and not dominated by pork barrel practices as suggested by the theory provided below.

Another possible mechanism for selecting policymakers in the political environment is the meritocracy one. Over the years, the idea of merit has been receiving increasing attention in the political debate. Meritocracy, for example, is frequently connected with populism and populist parties (Stoesz, 2022). However, this concept has created massive debate highlighting, from a theoretical perspective, its potential negative impact on democracy because "meritocracy is corrosive of the common good and of solidarity" (Sandel, 2020). In addition, this concept has been subject to empirical exploration by scholars such as Breen and Jonsson (2005b); Duncan and Murnane

(2011); Bukodi and Goldthorpe (2022); McCall and Percheski (2010), revealing that merit is often unequal and influenced by various demographic characteristics such as gender and age. Bruni and Santori argues that merit can find a place in market societies without exacerbating inequality only if it is conceptualized as the value of an individual's contribution to the common good of society; otherwise, it risks perpetuating inequality and dominance. Critics, such as Mijs (2022), warn that it could lead to populism, and the selection of policymakers based on meritocracy may result in the dominance of a meritocratic elite over others, commonly referred to as the "tyranny of merit" (Sandel, 2020). For these reasons, the potential for elitism and the perpetuation of societal inequalities raises important questions about the viability and desirability of meritocracy as a governing principle.

3 Theoretical Model and predictions

Let's define G (G for Given) as the amount of budget that the DM transfers to Citizens and $100 - G$ the amount he/she keeps for him/herself. Let FR (fair rule) be the allocation rule of the amount G when it is divided equally among all 3 citizens $\left(\frac{G}{3}\right)$ and PBR (pork barrel rule) be the allocation rule of the amount G when this is divided only among the two citizens $\left(\frac{G}{2}\right)$ belonging to the winning majority. Let N_{FR} be the proportion of DM that opt for FR, that is to say,

$$N_{FR} = \frac{FR}{FR + PBR}$$

Let e stand for the election treatment, r for the random selection treatment, and m for the merit treatment.

As a benchmark for our discussion, it is important to underline that if subjects are perfectly rational self-interested individuals we should observe Decision Makers to allocate all the budget to themselves in all three treatments. In particular, proceeding by backward induction, in phase 4, Decision Makers maximize their payoff by allocating all the budget to themselves under all 3 treatments.

In phase 3, there is only one treatment (elections) where citizens have an active role.

Anticipating that DMs allocate everything to themselves in phase 4, Citizens should vote randomly (if they could, they would abstain from voting).

In phase 2, candidates understand that what they announce is just cheap talk and therefore should produce random announcements. Again, we should observe no difference between treatments.

Hypotheses under rational choice theory are thus:

$$H_0 : G_e = G_r = G_m = 0$$

The DM gives nothing to citizens no matter the treatment.

$$H_0 : \text{As } G = 0, \text{ also the proportion } N_{FR} \text{ should be the same under all 3 treatments.}$$

However, behavioral biases and moral and social preferences may affect the behavior of subjects and ultimately lead to systematic differences in behavior across our treatments. In designing our three treatments and following some previous literature in this regard we had in mind different behaviors that we first elaborate in words and then translate into testable hypotheses.

Hypotheses concerning the allocation between the DM and Citizens (efficiency of selection mechanism hp).

We begin by observing that, from a large literature on social preferences and with the special reference to the Dictator Game we know that individuals that are asked to transfer part of a budget that has been assigned to them to one or more passive players (see also citations from generalized dictator games) actually very often do so, violating thus the predictions of the standard rational choice model that would assume subjects to maximize their own payoffs by transferring nothing. In phase 4, our Decision Makers face the same game structure of dictators in dictator games (they must decide whether to transfer an amount G that can otherwise stay with them) fearing no consequences from Citizens. Because of this known behavior it is reasonable to assume that

$$H_1 : G_e, G_r, G_m > 0$$

Concerning the election treatment, we know from Public Choice and Political theory that candidates in elections must win enough votes to get elected and therefore will make generous announcements to convince citizens to vote for them. Typically elections are repeated over time, so the reputational concerns guarantee that candidates stick to their promises. In our experiment, however, elections happen only once and, as discussed above, a rational DM has no "rational" reason to keep his/her promise, and therefore electoral promises are mere cheap talk. However, there is ample evidence that individuals have preferences for truth-telling (Abeler et al. 2019), and Corazzini et al. have shown that this preference extends also to Candidates formulating cheap-talk electoral promises: as such, once they formulate their promises, if they win the elections, they tend

to stick to their promises to some extent. Anticipating this behavior, Citizens in Phase 3 tend to take promises more seriously and tend to vote for the candidate that offers them larger transfers. Therefore we can formulate the following further hypothesis:

$$H_1 : G_e > G_r, G_m$$

From the same literature on social preferences studied through the dictator game we have learned that having acquired the budget to distribute by effort/merit decreases the amount transferred (both at the internal and external margin). The sense of entitlement conferred by the meritocratic mechanism in G_m should thus reduce the amount G transferred with respect to the amount transferred in the r treatment where the allocation of the budget was random. Furthermore, we can refine H_1 as

$$H_1 : G_e > G_r > G_m$$

To sum up, in phase 2 we should observe more generous announcements G in e than in r and m respectively. These larger promises should correlate to larger actual transfers in phase 4.

Hypotheses concerning the allocation of G among Citizens (pork Barrel hp).

In our design, the DM can decide to distribute the amount G among 1, 2, and 3 citizens. There is ample literature that shows that people are generally inequity averse

However, in treatment e, the PBR allocation rule presents some relevant properties/implications over FR. Indeed, Public Choice theory not only predicts that Candidates will make generous announcements concerning the allocation of budget to Citizens if they get elected, but also that these promises will not necessarily concern all of the citizens because Candidates need only to convince a majority of citizens (2 out of 3 in our experiment) to get elected. In phase 2 of treatment e, Candidates will realize that the marginal cost of convincing a majority of Citizens to win the election is lower under the PBR than under the FR and therefore for any given amount G, DMs decide to transfer, they will prefer to allocate G according to a PBR than to a FR. We can thus formulate the following hypothesis:

$$H_1 : N_{FR_e} < N_{FR_r}, N_{FR_m}$$

4 Experimental design

Groups of five subjects are formed and these constitute our unit of analysis (our constituency). For each group, there are three citizens, who benefit from the policy and two *candidate* policymakers.

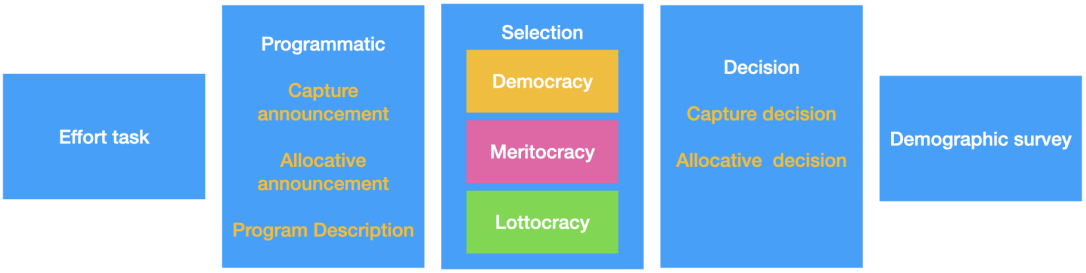

Figure 1: Experimental phases

Eventually only one of the two becomes the *selected* policymaker who takes the policy decision concerning the allocation of a budget. The experiment manipulates the way the policymaker is selected. Both the matching of subjects to the group and to the role of candidate policymakers or citizens is random.

The experiment is divided in five distinct phases:

1. **Effort Task phase**. In this initial phase all participants -both citizens and policymakers undertake an effort task that measures individuals' ability at counting the correct number of 0s on a table of 50 randomly ordered 0s and 1s. Each table for which the number of 0s is correctly counted gives a score of 1. This effort task has been devised by (Abeler et al., 2011)[1] in order to provide an activity which requires low levels of any particular skill and little learning effect. The choice of this task has been driven by the need to measure the relative performances of subjects on a scale orthogonal to the skills needed to carry out policy making and or to the intensity of social preferences that might affect the allocative decisions implied by our policy.

   Notice that this phase is paramount for the meritocratic treatment because here the policymaker is selected according to the performance in the effort task but the effort task is

[1] See (Charness et al., 2018b) for a discussion of alternative effort tasks.

submitted to all subjects across treatments in order to keep comparability. The relative performances of the candidate policymakers are revealed to the citizens in the meritocratic treatment in phase 3 but not in the other treatments.

2. **Programmatic phase**. All candidate policymakers formulate their policy programs to be shared with citizens prior to the next phase. The candidate policymaker has a budget of 100 tokens and the policy proposal concerns how he intends to spend this budget. The proposal is built in three steps.

   (a) **Capture announcement.** The candidate decides how much of the budget to capture for himself[2] (the *captured* budget) and how much to distribute to citizens (the *policy* budget) in case he/she becomes the selected policymaker. Every captured token is discounted by a 0.8 factor[3].

   (b) **Allocative announcement.** The policy budget can be allocated among the three citizens in different ways, following a pork-barrel logic. Here are the options available:

   - Only one citizen gets the whole policy budget (Citizen 1 or 2 or 3).
   - Two citizens share half of the policy budget (Citizen 1&2 or 2&3 or 1&3).
   - Three citizens share one-third of the policy budget (citizen 1 &2 &3).

   (c) **Program announcement.** The candidate policymakers write in words a description and motivation for his/her allocative program. Messages are non-binding, providing post-facto freedomand policymakers cannot observe each other's messages. This part clearly mimics an electoral campaign which fits well in the election treatment, however, for comparability, candidate policymakers will be required to write their allocative programs in all treatments.

   At this point, the programs and the performance of policymakers in the effort task is revealed to all citizens in all treatments.

3. **Policymaker selection phase**. The experimental manipulation happens at this stage where we can have the following three selection mechanisms

   (a) **Election**.The citizens vote for the policymaker among the two candidate policymakers. Voting is mandatory and secret. a simple majority assigns the role.

   (b) **Sortition**. The policymaker is chosen randomly among the two policymakers.

   (c) **Meritocracy**. The policymaker who best performed in the *counting zero* task is selected as policymaker. However, the outcome of the selection process is communicated to the candidate only after phase 4.

[2]On top of the flat fee for participation that is paid to both candidates.
[3]capture implies a loss of efficiency.

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4. **Allocation phase**. All policymakers proceed to allocate the available tokens among citizens under a standard strategy method (Brandts and Charness, 2011). Remember that the program that has been announced is non-binding so now he/she must repeat the decisions as in phase 2.

5. **Demographic questionnaire phase**. In the end a standard survey eliciting relevant demographic data is submitted.

5 Procedures

We conduct the experiment with subjects recruited on Prolific (Palan and Schitter, 2018). Subjects are randomly recruited [insert some demographics of the subject pool such as age distribution, gender balance, and country of residence]. 100 subjects (20 groups) for each treatment are recruited for a total of 300 subjects. Each group comprises five participants randomly assigned to either the role of the two candidate policymakers or the three citizen. The experiment is programmed on Classex (Giamattei and Lambsdorff, 2019). Initial instructions, both written and verbal, were provided to all subjects, followed by control questions to confirm comprehension. Earnings were computed in tokens and converted to euros with an exchange rate of... and paid privately and anonymously via the Prolific platform. Final payments average.... The entire experiment duration was approximately ... minutes. Procedures, research hypothesis and empirical strategies have been pre-registered The experiment has been approved by the LUMSA IRB (CERS) on April 8, 2024

6 Results

To be added

7 Conclusions

To be added

8 Bibliography

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A Mathematical Appendix