Chapter 4

Three Social Choice Rules: An Experimental Approach

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ABSTRACT

The authors analyze three social choice rules (plurality voting, approval voting and Borda count) from a behavioral economics perspective aiming three objectives: 1) if it is a viable solution to use these procedures during mass elections; 2) why individuals prefer a specific social choice rule and not another; 3) how status quo bias and framing effect influence the preference of individuals for a certain social choice rule. The research is conducted with 87 participants to a lab experiment and data suggest that for using approval voting and Borda count during mass elections is necessary to increase the people level of information about their benefits. When making a decision in a political or economic context seem that people tend to prefer simple plurality rule do to its availability and maybe because of its strong reliance with status quo bias.

INTRODUCTION

Individuals are often confronted with different choices, whether it is the choice between candidates at the next presidential elections, the choice of a future job or the university their children will attend. Each of us has a set of preferences regarding the alternatives we face. From this set, more often than not, we choose one alternative using various strategies to reach our desired goals. When our societies are confronted with situations where a decision involving interaction between multiple individuals is needed, (such as political elections, referendums) they use practical mechanisms to transform individual preferences into collective decisions. This type of mechanisms are generally known as social choice rules (Balinski, Michel; Laraki, Rida;, 2010). There is an entire list of social choice rules that are used or can be used, such as single non-transferable vote (used to choose the legislature in Japan), single transferable vote (known as Hare Rule or Cincinnati Rule), Borda count, Combs Rule, Copeland Rule, Condorcet winner, Simson-Kramer Rule, Kemeny-Young method, Kendall-Wei method, Jech method or majority voting (Levin, Jonathan; Nalebuff, Barry;, 1995). Some of them, like the majority vote, are
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used more frequently than others, being known as usual procedures in human decision-making. How we build and apply these social choice rules can have a direct effect on individuals’ behavior and the outcome we obtain. Duverger, 1963 [1951] argues that different voting rules produce different results in terms of the proportion in which votes are transformed into seats in the legislative. This phenomenon is most commonly known as the mechanical effect of voting rules. One direct implication of this effect is that voters who understand the mechanical implications of voting procedures could change their voting behavior, acting like strategic voters. Moreover, political agents can build their decisions – whether to enter the political competition or not – depending on how they anticipate the mechanical effect will influence voter’s behavior.

Also, a particular social choice rule used in a specific context can produce political crisis and institutional blockages that could be avoided by using other rules that prove more efficient. In this sense, the history of US democracy provides a good example, known as the Burr Dilemma. During the first four US presidential elections (from 1788, 1792, 1796 and 1800) the official voting procedure used to elect the president was similar to approval voting. During the 1800s presidential elections this procedure produced a draw between Thomas Jefferson and Aaron Burr. Under the US Constitution, in this case, the decision for electing the new president was transferred to the House of Representatives who needed 36 rounds to declare a president from one of the two candidates (who eventually turned out to be Thomas Jefferson). This situation led to an institutional deadlock threatening to escalate into a major political crisis and a possible civil war. Immediately after (in 1804), in order to avoid similar situations, approval voting was eliminated and replaced, under Amendment 12, with another voting procedure (majority voting) which granted each elector the right to choose one, and only one candidate from the list (Nagel, 2007, p. 43).

Nowadays we can select from many types of social choice rules when facing a decision. A good question is on what arguments we rely when we decide to use a specific social choice rule and not another? This question is important for at least two reasons. Firstly, it is possible that different social choice rules applied to the same decision making situation, could produce different outcomes. When speaking about political elections, there are consistent examples (different winners and ranking changes according to the procedure we use) who prove this finding (Brams, 1980), (Laslier & Van der Straten, 2008), (Balinski, Michel; Laraki, Rida; 2010), (Văducu & Guțu, 2011, 2013), (Igersheim, Baujard, Gavrel, Laslier, & Lebon, 2015). Secondly, authors (Brams, 1980), (Felsenthal, Maoz, & Rapoport, 1993) consider that some of them are superior to others in terms of certain criteria. For example, if there are cyclical results, some voting procedures are better than others to surpass them. In this regard, approval voting is considered a procedure that gives voters the proper incentives to express their sincere preferences, eliminating strategic voting (Brams, Steven J; Fishburn, Peter C; 2005), (Laslier & Van der Straten, 2008). Given these examples, the authors raise a number of questions in this chapter: how do we determine the social choice rule that best aggregates individual preferences into collective decisions? What are the reasons that lead individuals to prefer a social choice rule over another? Is the preference for a specific social choice rule influenced by the context in which decisions are made? If we prefer a social choice rule only by pure habit, degree of familiarity or because it simply represents the status quo, should we question the entire process of voting? Eventually, when referring to decision-making we need to eliminate various negative effects, such as strategic voting that are the result of some social choice rules.

There is consistent literature which uses an individualistic approach in analyzing social choice rules, primary dealing with their properties and axiomatic characteristics (May, 1952), (Fishburn, 1973, 1978), (Young, 1974) (Miroiu, 2004), (Xu, Yongsheng; Zhong, Zhen; 2009). On the other hand, there are not so many research endeavors which examine how individuals understand voting procedures, the reasons