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# The determinants and electoral consequences of asymmetric preferences

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ABSTRACT

This paper studies two widely used models of political competition – citizen-candidate and probabilistic voting – to investigate the impact that asymmetries in single-peaked preferences have on two-party electoral competition. In a two-candidate equilibrium of the citizen–candidate model, asymmetries determine which candidate proposes a more moderate platform. In the probabilistic voting model, they induce both parties to move their platforms in the direction of the asymmetry, and affect the probabilities of victory of the contenders, sometimes in unexpected ways: under a restriction on party preferences, more *overprovision avoidance* increases the probability of victory of the party proposing a larger public sector and vice versa. The final part of the analysis shows that consumers' risk aversion, prudence and a decreasingly effective government induce overprovision avoidance asymmetries, whereas consumers' risk neutrality, a constant-effective government and a property we call decreasing satiation induce *shortfall avoidance* asymmetries.



## 1. Introduction

The classical downsian model of two-candidate elections predicts that competition between two purely office-seeking parties leads electoral platforms to converge to the median voter's bliss point (Black, 1948; Downs, 1957). An important implication is that, under some restrictions, only the distribution of voters' ideal points and, in particular, the location of the median voter's preferred policy are relevant to predict the electoral outcome. In two-candidate models of elections where platforms do not converge, the ideal policy of the median voter is no longer the predicted outcome, except in very specific circumstances.[1] Even so, the median voter may still be the representative voter in the sense that the alternative she prefers is also preferred by a majority of voters. Indeed, if preferences satisfy single-crossing or a similar restriction, the outcome of two-candidate elections depends on how the median voter values two proposals typically located at each side of her ideal policy, one offering too much, the other too little.[2] The shape of the median voter's single-peaked preferences, the main object of our study, thus becomes crucial.

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[1] See for example Aragonés and Palfrey (2002).

[2] Rothstein (1991) proposed a condition named *order restriction* which guarantees that the median of a particular ordering of voters is the representative voter. Gans and Smart (1996) studied the *single-crossing condition*. More recently, Martínez-Mora and Puy (2012) propose the condition of *non-decreasing shortfall avoidance*.

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Although the downsian model has had a profound influence in political economics, there is now a large and solid body of theoretical[3] and empirical results[4] that clash with the prediction of platforms convergence in two-candidate elections. This is evident nowadays. Consider for example the case of many European countries: the financial crisis and the ensuing economic recession have polarized the positions of political parties and citizens alike. Conservative parties favor significant reductions in the size of government and drastic austerity plans aimed at quickly reducing public deficit and the rate at which national debt is growing. Traditional social-democratic parties, in turn, denounce those policies as "suicidal" and propose Keynesian fiscal policies to stimulate the economy and increase its capacity to return the growing debt. Social unrest and large demonstrations against austerity plans have followed in countries such as Greece, Portugal, Spain, Italy, France, Belgium or the UK. Clearly, in that context, models that predict the equilibrium separation of platforms are more suitable to study electoral competition than the downsian model.

While, as we have argued, the shape of single-peaked preferences is crucial for the outcome of two-candidate elections, models that study the strategic location of candidates typically assume that preferences are symmetric about the peak. In other words, they assume that voters have an ideal policy and that pairs of policies located symmetrically about the peak result in identical utility losses.[5] That assumption is innocuous when the metric of the policy variable is not relevant but there are important policy dimensions (such as the size of government) where the policy space has a meaningful metric. In those contexts, analytical convenience is the only merit of the symmetry assumption.

The symmetry assumption is the point of departure of our work from the previous literature. Our contribution is double-fold. First, we explore the impact of endowing citizens with asymmetric single-peaked preferences over candidates positioning, probabilities of victory and expected outcomes. Second, we study the determinants of the shape of single-peaked preferences over government size. Our objective is to contribute to a better understanding of electoral competition by carrying out comparative statics exercises that yield testable predictions.

Let us explain our contribution in more detail. We define two types of asymmetric single-peaked preferences. If a voter prefers a shortfall in spending over a symmetric excess with respect to her ideal policy, we say that her preferences satisfy *overprovision avoidance*. If instead she prefers overprovision over a symmetric shortfall in spending, we say that her preferences display *shortfall avoidance*.[6] The analysis begins with the citizen-candidate model (Osborne and Slivinski, 1996; Besley and Coate, 1997). In that model, the location of equilibrium platforms is determined by the strategic entry decision of candidates. Our first result shows that the shape of the median voter's single-peaked preferences determines the location of candidates in any two-candidate equilibrium. If her preferences satisfy shortfall avoidance, the right-wing proposal will be more moderate; if on the contrary they satisfy overprovision avoidance, the left-wing candidate will propose a more moderate platform. Therefore, the model predicts that the public sector will be smaller where the median voter is an overprovision avoider than where she is a shortfall avoider. Furthermore, changes in the shape of her single-peaked preferences will trigger changes in expected spending, even if her ideal policy does not change.

We then study a probabilistic voting model inspired by Groseclose (2001) and Roemer (2001) which naturally results in equilibria with separation of platforms. Ours is a model of two-party political competition. Parties are composed of an ideological and an opportunistic (or office-seeking) faction and thus follow a convex combination of the objectives of the two factions. Moreover, they are uncertain about the location of the median voter's ideal policy. We first show that, in such setting, both parties propose a larger public sector for higher degrees of shortfall avoidance and a smaller one for higher degrees of overprovision avoidance. One would also expect that shortfall avoidance improved the electoral prospects of the left-wing candidate, and vice versa, that overprovision avoidance improved those of the right-wing party. However, we find that this is only true either when parties' ideological positions are sufficiently different from each other, or when their ideological factions are strong enough. Otherwise, an increase in overprovision avoidance will have the unexpected effect of decreasing the size of government proposed by the two parties while increasing the chances of the left-wing contender winning the election.

We conclude the analysis with an inquiry about the determinants of the shape of single-peaked preferences in the context of a standard problem of government size. Our goal is to identify economic factors that make single-peaked preferences display overprovision avoidance or shortfall avoidance. We show that risk aversion, prudence and any source of decreasing returns to scale in government spending generate preferences that exhibit overprovision avoidance. There are other circumstances where preferences may instead satisfy shortfall avoidance: for example, that will be the case if preferences over the publicly provided good satisfy a property we call decreasing satiation, preferences over private consumption display risk neutrality, and the government is capable of increasing its size with constant returns to scale.

[3] The theoretical literature offers several explanations of the observed separation of electoral platforms. Calvert (1985) and Wittman (1983) derive it from policy-motivated candidates with uncertainty on the distribution of voters' preferences. Palfrey (1984) and the citizen–candidate model due to Osborne and Slivinski (1996) and Besley and Coate (1997) derive it from the strategic entry decision of candidates. Groseclose (2001), Ansolabehere and Snyder (2000) and Aragonés and Palfrey (2002) obtain that policy proposals will diverge if one of the candidates has a valence advantage over the other. In particular, candidates with a valence advantage choose more moderate platforms and have a greater probability of victory. See Bernhardt et al. (2009, p.570), for a more detailed description of models that induce separation of platforms.

[4] There is a large empirical literature documenting the existence of differences in candidates' electoral positions. Recent contributions include the work of Ansolabehere et al. (2001) and Klingemann et al. (2006).

[5] Among the models that consider symmetric preferences are Enelow and Hinich (1982), Ansolabehere and Snyder (2000), Groseclose (2001), Aragonés and Palfrey (2002), Palfrey (1984), Osborne and Slivinsky (1996), Calvert (1985), and Bernhardt et al. (2009). An exception is the directional voting model due to Rabinowitz and Macdonald (1989), in which preferences are asymmetric.

[6] Suppose a voter whose preferred government size is 40% of GDP is offered two alternatives: 30% or 50%. According to our definitions, an *overprovision avoider* will strictly prefer the former option, while a *shortfall avoider* will strictly prefer the latter one.