The mechanical and psychological effects of legal thresholds[☆]

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ABSTRACT

In this paper, we estimate the effect of the legal threshold on the number of parties and decompose it into a mechanical and a psychological effect. We study the case of Morocco, whose local elections afford a rare opportunity to uncover the causal effect of the legal threshold, using a differences-in-differences approach. Our results show a large effect of the legal threshold on the number of parties. We find a large psychological effect in absolute terms: a 3% increase in the legal threshold leaves almost one effective party out of the council for purely strategic reasons. We conjecture that this large effect is due to the lack of institutionalization and programmaticness of most Moroccan parties.

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1. Introduction

Ever since Duverger (1954) formulated his famous propositions about the effect of electoral systems on the shape of party systems, there has been considerable scholarly effort to ascertain how electoral rules affect the number of parties in a legislature (see, among many others, Benoit, 2001; Cox, 1997; Rae, 1967; Lijphart, 1990; Taagepera and Shugart, 1989, 1993). Lower district magnitudes generate a smaller number of parties via a mechanical and a psychological effect. The mechanical effect refers to the way in which votes are converted into seats: in low district magnitudes this conversion is to the benefit of larger parties. The psychological effect refers to how – in anticipation of the mechanical effect – politicians will build parties large enough to win seats, and voters will vote strategically for parties having a chance to win a seat,

thereby further decreasing the number of parties (see Benoit, 2006). In the last decades, much work has been invested to quantify the effect of district magnitude on the number of parties.[2] Using ever more sophisticated methods, a robust increasing (and concave) association has been identified. In a recent contribution, Blais et al. (2011) use quasi-experimental methods to estimate the causal effect of electoral systems on the effective number of parties and decompose this effect into its mechanical and psychological components.

Given the considerable scholarly effort invested into assessing the relationship between district magnitude and the number of parties, it is surprising that almost no attention has been devoted to the role of legal thresholds. Legal thresholds have a clear mechanical effect on the number of parties and, precisely because of this, and in the same way as district magnitude, can give rise to a psychological effect as well. The combination of the two effects could be large, potentially as important as that of district magnitude. However, to the best of our knowledge, the only study that compares the effect of legal thresholds and district magnitude is Moser's (1999) article on elections in

[2] Examples include Blais et al. (2011), Clark and Golder (2006), Lijphart (1990), Pappalardo (2007), Reed (2001), Singer and Stephenson (2009), Taagepera and Shugart (1989, 1993).

post-communist states. His findings suggest that the effect of legal thresholds can be stronger than that of low district magnitudes. However, because he uses observational data, it is not clear if his results can be interpreted causally.

Indeed, obtaining causal estimates of the effect of the legal threshold on the number of parties is not straightforward. Cross country studies are likely to yield biased estimates, because thresholds are imposed for political reasons related to party systems. Therefore, countries that impose higher legal thresholds are likely to differ from countries that do not impose them in relevant ways, some of which are probably difficult to control for. One could alternatively focus on one or a small subset of countries that might have changed their legal threshold between two elections and compare the number of parties in the two elections. However, again, other factors relevant for the party distribution might have changed between the two elections and it will generally not be possible to disentangle between the effect of the threshold and these other factors.

In this paper, we estimate the effect of the legal threshold on the number of parties and decompose it into its psychological and mechanical components, using a quasi-experimental approach. We study the case of Morocco, whose 2003 and 2009 local elections afford a rare opportunity to uncover the causal effect of the legal threshold. We exploit two features of the Moroccan case. First, municipalities below a certain population cut-off have a majoritarian system, whereas those above that level have a proportional system. Second, the legal threshold changed in the municipalities with the proportional system from 3% in the 2003 elections to 6% in the 2009 elections. Because the increase in legal threshold applies only to municipalities with a proportional system, a differences-in-differences approach can be used to control for other relevant factors by using the municipalities with a majoritarian system. The validity of the approach is strengthened by focusing on municipalities close to the population cut-off that determines the electoral system. These municipalities provide valid treatment and control groups because they are likely to be, on average, very similar.

We use municipal level data merging electoral results from the 2003 and 2009 elections and population data from the 1994 and 2004 censuses. An important limitation of our electoral data is that it does not include information on votes, but only on seats.

We find a large effect of the increase in legal threshold on the number of parties, implying that a one percentage point increase in the threshold leaves one effective party out of the council. Our results suggest that for councils of around 25 seats, a proportional system with a 6% legal threshold is equivalent to a majoritarian system in terms of number of parties. These results are consistent with the effective threshold models by Lijphart (1994) and Taagepera (1998, 2002).

The total effect of the legal threshold has only limited interest, as it conflates the mechanical and psychological effects. The mechanical effect is, in some sense, trivial, and likely to be very context-specific. If our results were purely driven by the mechanical effect, all they would be telling is that there are many small parties in Morocco, something that is already well known. What is interesting is to obtain insights on the psychological effect. Is the behavior of parties and voters affected by the legal threshold? And if so, by how much? These questions are of particular interest in the context of developing and semi-democratic countries. There, it is by no means clear if there are sufficient incentives to behave strategically when it comes to elections that might matter little after all. In this respect, the case of Morocco is of considerable interest as it exemplifies precisely such countries.

We thus decompose the total effect of the legal threshold into its mechanical and psychological components. We perform this decomposition simulating a counterfactual distribution: applying a 6% threshold to the 2003 distribution of seats. When compared to the actual 2003 distribution, this counterfactual captures the purely mechanical effect. The difference between the actual 2009 distribution and the counterfactual then captures the psychological effect (the difference emerging from strategic calculations of voters and parties). Our approach is valid to the extent that the 2003 distribution can be used as a basis for the 2009 counterfactual; i.e. if the difference between the 2003 and 2009 distributions indeed comes mainly from the increase in legal threshold. We check this by comparing the seat distributions in 2003 and 2009 for the *majoritarian* municipalities finding that indeed the distribution of seats has barely changed.

Using this decomposition, we compute the relative importance of the mechanical and psychological effects for the (effective) number of parties. We find that the mechanical effect accounts for around 75% of the total effect while the psychological effect accounts for around 25%. Still, the absolute value of the psychological effect is large: it implies that an increase in the legal threshold of 3 pp leaves out of the council almost one effective party, for purely strategic reasons. Put in the Moroccan context where it is unclear how meaningful elections are and where moreover the higher threshold was newly introduced, this appears like a considerable amount of strategic behavior from voters and politicians. We discuss as plausible drivers of the effect's large size the uncertainty about party support and the lack of programmatic parties in Morocco. Lack of information about a specific party's support may lead to an over-reaction to the threshold. In turn, the lack of programmatic ambitions implies that parties (and candidates) are pure short-term seat maximizers who will desert parties threatened by the threshold. In this way, it would be precisely the semi-authoritarian, clientelistic character of Moroccan elections that would prompt high levels of strategic behavior. Consequently, we would expect the psychological effect to be smaller in systems where parties are more programmatic and institutionalized.

The paper is organized as follows. Section 2 gives a brief background on Moroccan parties and electoral rules. Section 3 estimates the effect of the legal threshold on the number of parties, contrasting it to the effect of district magnitude. Section 4 decomposes the total effect into its mechanical and psychological components. Section 5 concludes.

2. Party system and electoral rules in Morocco

Morocco's political system is a monarchy that combines authoritarian with representative institutions. The King