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Research note

## Comparisons among electoral systems: Distinguishing between localism and candidate-centered politics<sup>☆</sup>

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### Abstract

Carey and Shugart [1995. Incentives to cultivate a personal vote: a rank ordering of electoral formulas. *Electoral Studies* 14 (4), 417–440] offer a four component composite index of “incentives to cultivate a personal vote.” We argue that this index, while tapping important aspects of electoral system choice, is best regarded as encompassing two distinct dimensions: degree of party-centeredness of the electoral system, on the one hand, and incentives for “parochial” behavior on the part of legislators, on the other. Also, while we have no problem with the three indicators used by Carey and Shugart to measure party-centeredness; to measure parochial incentives we prefer to use a new measure,  $E$  [Grofman, B., 1999a. *SNTV, STV, and single-member district systems: theoretical comparisons and contrasts*. In: Grofman, B., Lee, S.-C., Winckler, E., Woodall, B. (Eds.), *Elections in Japan, Korea and Taiwan under the Single Non-Transferable Vote: The Comparative Study of an Embedded Institution*. University of Michigan Press, Ann Arbor, MI] of the size of a legislator’s *electoral* constituency, rather than using district magnitude,  $m$ , as a proxy for a the size of a legislator’s *geographic* constituency, as Carey and Shugart do. In the conclusion to the paper we argue that the degree of similarity between any two electoral systems will depend upon the research

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question at issue, and that the expected degree of proportionality of election results is only one of the many political consequences of electoral laws to which we ought to be paying attention.  
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A number of authors have developed classifications of electoral rules (see e.g., Rae, 1967; Grofman, 1975; Blais and Massicotte, 1997; Reynolds and Reilly, 1997), but with only a handful of exceptions, such classificatory schemes have taken (expected) proportionality of electoral outcomes as the key discriminant among type of electoral systems. In proportionality-based classifications of electoral systems, list PR and the single transferable vote are commonly put together and regarded as polar opposites of plurality-based methods.<sup>1</sup> However, recently, some authors (see especially Reed, 1994; Carey and Shugart, 1995; Grofman, 1999a,b; cf. Bogdanor, 1985:11; Lancaster, 1986) have argued that too much emphasis has been placed on PR systems versus majoritarian/plurality systems as the principal cleavage line of electoral system choice, and asserted that there are other distinctions that are, arguably, at least as important.

One such continuum along which to distinguish electoral systems is in terms of the extent to which there are incentives for localistic/parochial behavior on the part of legislators elected under a particular method. Carey and Shugart (1995) offer an insightful discussion of how to classify electoral systems according to this criterion. They propose a continuum of electoral systems in terms of the incentives that each provides to “cultivate a personal vote.” They rank systems in terms of four variables: (a) lack of leadership control over access to ballot/ballot position; (b) degree to which candidates can be elected independent of the vote shares of co-partisans; and (c) whether the voters possess a single intra-party vote as opposed to multiple intra-party votes or a single party-level vote, and (d) district magnitude (commonly designated with the letter *m*). They treat the first three of these variables as dichotomous and weigh the first three factors equally to arrive at a composite index.

While we believe the Carey and Shugart (1995) article is a seminal one, because their operationalization of their index of the incentives to cultivate a personal vote is

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<sup>1</sup> So-called semi-proportional methods (e.g., limited voting and cumulative voting) are usually treated as falling into an intermediate category. There is a dispute in the electoral studies literature as to the appropriateness of the use of the term “semi-proportional” to characterize systems such as SNTV or cumulative voting since they can be regarded as proportional in their intent and are often proportional in effect, as well. For example, as Lijphart (1999) notes, when we control for district magnitude, at least in Japan and Taiwan, SNTV operates essentially like a PR system in terms of seats-votes proportionality. Also, the threshold of exclusion (an indicator of the degree to which a group of a given voting strength can assure itself at least one seat: see e.g., Rae, 1971) is the same for SNTV as it is for the cumulative vote, as it is for STV and for d’Hondt list PR. Grofman (1999a), however, argues that the term “semi-proportional” in referring to SNTV or cumulative voting is appropriate, since their proportionality in seats-votes (or lack thereof) is contingent on the degree of optimality of strategic choices made by parties as to how many candidates to run in a way that is not true for list PR systems or STV.

essentially multi-dimensional in nature, we wish to distinguish what we regard as two theoretically separate (even if empirically inter-twined) features of electoral systems that their index combines: the degree to which candidacies are party-centered and the size of a legislator's (perceived) electoral constituency. Classifying systems in these two ways demonstrates that we can get different results about which systems are most similar depending upon exactly how we weight these two criteria.

The first of these two dimensions can be tapped by the first three of the four indicators in the Carey and Shugart composite measure, of the incentives to cultivate a personal vote. For party-centeredness, we may take the polar types as being, on the one hand, systems in which party labels are not even provided and voters cast their votes for individual candidates and, on the other, those in which voters' only choice is to vote for a party. While the second dimension, incentives for parochial/localistic behavior on the part of legislators can be tapped, as Carey and Shugart (1995) do, by district magnitude ( $m$ ), we prefer to use the measure,  $E$ , of electoral constituency size offered in Grofman (1999a) as a proxy measure for this dimension.

### 1. The Grofman (1999a) measure of electoral constituency size

Drawing on a well-known distinction in the American politics literature between electoral constituency and geographic constituency (Fenno, 1978), following Grofman (1999a) we will use the letter  $e$  to refer to the number of voters who voted for a given candidate or party, and  $E$  to the *mean* value of electoral constituency size in a legislature. In candidate-centered systems  $e$  is simply the vote received by the candidate; in closed party-list systems we take  $e$  to be the vote received by the party list in the district. Paralleling our treatment of list PR, we will take the expected  $e$  for STV to be the size of the quota needed to elect a legislator, i.e.  $1/(m+1)$ .<sup>2</sup>

What makes  $E$  of particular usefulness as a measure of electoral (as compared to geographic) constituency is that, for most electoral systems, it is not a simple monotonic function of  $m$ , although it does work that way for some systems.<sup>3</sup>

<sup>2</sup> However, as Grofman (1999a) observes, specifying  $e$  for STV systems is more problematic than for other electoral systems. While a quota of  $1/(m+1)$  elects a candidate, STV candidates who lack strong first-place support rely on second-place, third-place, etc. ballots transferred after other candidates have won/been dropped, and some candidates receive more than a quota of first place preferences (with the "excess" votes siphoned off to help candidates lower down on those voters preference orderings). In calculating  $e$ , for STV, ought we to give some weight to the excess first place votes a candidate receives, on the one hand, or to give a weight of less than one to the votes that elected a candidate that came from lower down in voter's preference orderings, on the other? These issues require further thought, but do not significantly affect the conclusions we reach in this paper.

<sup>3</sup> Carey and Shugart (1995) recognize that the effects of higher district magnitude can vary with electoral system, and that it actually increases incentives for clientalism in what they call "personal vote" seeking systems, even though it decrease such incentives in party-list systems or other systems with a great deal of centralized party control over the nomination process. However, in their index, they code  $m$  consistently, regardless of whatever other electoral system features may be present.

Let us assume that all seats are equally apportioned in per capita terms, and that legislative size ( $L$ ) is fixed. Consider plurality bloc voting. For plurality bloc voting  $E$  can be expected to be a monotonically increasing function of mean district magnitude; since, if we, say, cut the number of constituencies in half, thus doubling  $m$ ,  $E$  can also be expected to (roughly) double. However, for some other candidate-centered systems (e.g., STV),  $E$  is a near constant function of  $m$ ; since if we cut the number of constituencies in half, the population-weighted threshold of exclusion is  $1/2(m+1)$  as compared to  $1/(2m+1)$ , and the ratio of the two thresholds,  $(2m+2)/(2m+1)$ , stays reasonably close to one even though it increases slightly. Lastly,  $E$  can be an increasing function of  $m$  for some electoral systems (e.g., closed party list systems); since, for closed party list systems, increasing district size will increase  $E$ , albeit (for a given  $m$ ) the increase in size of  $E$  will generally be lower under closed party list systems than under plurality bloc voting because increasing district size will also permit some groupings whose size and/or lack of geographic concentration was not sufficient to permit them to win seats when  $m$  was low, to now do so.<sup>4</sup>

## 2. Similarities among electoral systems

As shown in Table 1, the three quite different approaches to specifying salient features of electoral systems in terms of their expected effects identified above lead to quite different notions of the degree to which particular electoral systems (e.g., plurality, SNTV, cumulative voting, STV, and closed-list PR) are similar to one another.

In one of these classificatory schemes (the standard PR versus plurality continuum, based on anticipated proportionality), plurality is at one end and list PR and STV are at the other, with SNTV and cumulative voting in the middle. In the second, based on the Grofman (1999a) measure,  $E$ , for a fixed legislative size and for a fixed  $m$ , plurality bloc voting is at one extreme (with a high  $E$  value) and other candidate-centered systems like SNTV and STV are at the other (with a low  $E$  value), while closed list PR is in the middle, with its exact location on the spectrum depending upon the distribution of voting strength across voting blocs. While

<sup>4</sup> The more even in voting strength are the groups the more closed list PR will look like SNTV and STV in terms of expected  $E$  value (i.e.,  $E = 1/(m+1)$ ); while if the distribution of voting strength is such that some groups are much larger than others, the  $E$  value for closed list PR will more closely resemble that for the plurality bloc voting case (i.e.,  $E = 1/2$ ). For example, consider three voting blocs, with bloc A having  $4/7$  of the vote, bloc B having  $2/7^+$  and bloc C having  $1/7^-$  of the population. Let  $L = 8$ . If we have two four seat districts then, in each, under closed list D'Hondt PR, if each bloc's voting strength is proportionally the same in each district as it is overall, then bloc A will win three seats (each with an  $e$  value of  $4/14$  of the national vote) and bloc B will win one seat (with an  $e$  value for that seat of  $2/14$  of the national vote); while bloc C will win no seats. Thus,  $E$  will be  $1/4$  ( $= (3 \times 4 + 1 \times 2) / (4 \times 14)$ ). If we have only one eight seat district, then bloc A will win five seats (each with an  $e$  value of  $4/7$  of the national vote), bloc B will win two seats (each with an  $e$  value of  $2/7$  of the national vote), and bloc C will win one seat (with an  $e$  value of  $1/7$  of the national vote). Now  $E$  will be  $25/56$  ( $= (5 \times 4 + 2 \times 2 + 1 \times 1) / (8 \times 7)$ ). The  $E$  ratio in the two cases is 1.78.

Table 1  
Three continua of electoral system classification

Continuum	Most	Intermediate	Least
PR versus plurality (proportionality)	list PR, STV	SNTV, cumulative voting, mixed systems	Plurality bloc voting
Candidate-centered politics versus party-centered politics (candidate focus)	SMD plurality, STV, SNTV, cumulative voting	Open list PR, mixed systems	Closed list PR
Large electoral constituencies systems versus small electoral constituencies (localism, $E$ )	MMD plurality	Closed list PR, mixed systems	STV <sup>a</sup> , SNTV, cumulative voting, SMD plurality

<sup>a</sup> The classification of STV vis-à-vis this criteria is somewhat more problematic (see footnote discussion in text).

according to the third classification method (candidate-centered politics versus party-centered politics), SMD plurality, STV, SNTV, and cumulative voting are all together, with closed party list PR at the other end, and open list PR as an intermediate category.

### 3. Discussion

We have proposed to split the Carey and Shugart (1995) index of “incentives to cultivate a personal vote” into two components: degree of party-centeredness of the electoral system and a measure of the size of a legislator’s electoral (as opposed to geographic) constituency, to be used as a proxy for the “parochial” tendencies of electoral systems. We have also argued that the degree of similarity between any two electoral systems will depend upon the research question at issue, and that an exclusive focus on proportionality of result can be extremely misleading if we wish to truly understand the political consequences of electoral laws. In particular, we believe that the two additional ways of classifying electoral systems provided here (combining the approaches in Carey and Shugart, 1995 and in Grofman, 1999a) may afford us at least as many insights into potential important political consequences of electoral laws as the standard PR versus plurality classification. But we would emphasize that measures such as  $E$  are intended as complements to, not substitutes for, other classificatory criteria.

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