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Measuring Party Fractionalization in Mixed Electoral Systems:

A Research Note

There is a growing consensus that mixed electoral system should be treated as distinct systems. (See Shugart and Wattenberg (2001) for a definition of mixed electoral systems.) Recent scholarship has demonstrated the presence of contamination effects across the two tiers even when they are not formally linked (Herron & Nishikawa, 2001; Clark & Prekevičius, 2001; Clark and Wittrock, 2005; Cox & Schoppa, 2002). Hence, the number of seats that small parties win in the SMD tier, as well as overall, is more than would be the case in a pure SMD electoral system. This raises the issue of how best to measure party fractionalization in these systems. If there are contamination effects, then we can not simply use independent measures of the SMD and party-list tiers (see Moser, 1997; 1999; 2001). We need a measure that reflects the effect of the two tiers together, one which reflects the distinct features of mixed systems.

Clark and Wittrock (2005) grappled with this issue in their most recent article. Calculating Nv, the effective number of electoral parties, a measure of the psychological effect on the party system, is somewhat controversial. Two options suggest themselves. Scholars have increasingly preferred to use district level data in calculating Nv in pure SMD systems. Moser (2001) employs this method in calculating scores for the SMD tier. Following this logic, Nv for mixed systems could be calculated on the basis of votes received by parties and party candidates at the district level in both the party-list and SMD races. We believe this to be an inferior method because it fails to account for the

fact that different parties may dominate across the districts. In essence, it assumes that the same parties are running and winning. This is particularly problematic when there are large numbers of independents. They are essentially treated as if they were members of the same (several) parties. The effect is that the number of parties is deflated. Neither the actual degree of party fragmentation nor the problems this creates for organizing the legislature is accurately depicted.

A second method would be to calculate the average of the Nv in the SMD tier at the district level and average that with the Nv in the party-list tier using nation-wide data. This method seems dubious since it calculates a score based on two different sets of data (district level for the SMD tier and aggregate data for the party-list tier). Further, it retains all of the problems of the first method.

These problems are corrected by calculating Nv using nation-wide data. Parties and their candidates' vote (aggregated across the SMD and party-list tiers) would be used to calculate Nv. Independents in this method are treated as individual parties. Given that parties are means for nominating candidates for office, this appears to be the most logical way to treat those who nominate themselves by choosing to run as independents. Of course, the result will be that the resulting calculation of Nv will be higher in systems in which large numbers of independents run for office and win. This is precisely what Clark and Wittrock (2005) wished to focus on in their study of the effect of strong presidents on party fragmentation. Their thesis was that strong presidents undermined the rationale for candidates to join themselves to parties. Hence, parties are weakened in their role of organizing the electoral vote as well as organizing the legislature. Calculating party

fragmentation scores in such a way as to purposely minimize the effect of independents and small regional parties misses this point altogether.

This is demonstrated at Table 1. The table juxtaposes measures of Nv calculated for Russian elections on the basis of 1) nation-wide data and 2) a mix of district (SMD) and nation-wide data (PR) with 3) a measure calculated by Moser (2001, p. 37). It is not clear from Moser's text exactly how he calculated Nv, but the fact that the Nv he calculated for the SMD tier as a separate election is quite close to that for the Nv for the total system suggests that he used constituency-level data. These scores are also quite close to those that we get when we performed the same calculations.

These data make the point that calculating Nv on the basis of district-level data in mixed systems such as Russia, in which parties perform their organizational and mobilization roles weakly, severely understates the number of effective electoral parties (Nv). Of course, if it is the case that national parties dominate electoral contests across districts as well as the party-list then differences in calculating Nv on the basis of district level data or nation-wide data will be minimized. This is clear in the juxtaposition of the results of the different approaches to calculating Nv in the Lithuanian and Hungarian political systems at Table 2.

The logic of the calculation of the effective number of parliamentary parties (Ns), a score that measures the mechanical effect of electoral systems on party fragmentation, is somewhat less controversial. Given that the SMD tier returns only one candidate per district, only nation-wide results can be meaningfully used in the calculations. The question, however, as before is how to treat independents. Moser (2001) calculated Ns based on the factions that independents joined following the elections. We do not believe

this to be the preferred manner to aggregate the data as doing so substantially overstates the mobilizational and organizational capacity of political parties such as those in Russia, in which large numbers of candidates run for election and win outside of political parties. We contend that independents must be treated as individual parties in calculating both Ns and Nv. Table 3 juxtaposes the results of using the different methods for calculating Ns in Russian, Lithuanian, and Hungarian elections. Again, the Moser method understates the number of parties for systems with large number of independents, but results in measures that differ very little from other systems.

Table 1 Effective Number of Electoral Party Scores (Nv) for Russia

	Russia 1993	Russia 1995	Russia 1999
Independents Elected			
	130	77	105
Effective Number of Parties			
Vote Share ($\mathbf{N_v}$)			
Calculated using nation-wide data for both tiers:			
	15.64	16.35	12.24
Calculated using constituency-level data for SMD and nation-wide data for PR:			
	7.47	8.94	6.24
Calculated by Moser (2001, p. 37)			
	7.14	10.68	----

Table 2 Effective Number of Electoral Party Scores (Nv) for Lithuania and Hungary

	Lithuania 1996	Hungary 1990	Hungary 1994
Effective Number of Parties			
Vote Share ($\mathbf{N_v}$)			
Calculated using nation-wide data for both tiers:	7.55	7.07	5.74
Calculated using constituency-level data for SMD and nation-wide data for PR:	7.59	7.07	5.74
Calculated by Moser (2001, p. 45)	7.87	7.00	5.75

Table 3 Effective Number of Parliamentary Party Scores (Ns) for Russia, Lithuania, and Hungary

	Russia 1993	Russia 1995	Lithuania 1996	Hungary 1990	Hungary 1994
Effective Number of Parties					
Vote Share ($\mathbf{N_s}$)					
Calculated using nation-wide data for both tiers:	16.42	6.14	3.33	3.77	2.88
Calculated by Moser (2001, pp. 37 and 45)	8.16	3.32	3.40	3.79	2.90

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