

ELECTORAL SYSTEM, VOTER PREFERENCES, AND THE FRAGMENTATION OF PARTY SYSTEM: THE EAST ASIAN CASES

Jih-wen Lin*

Abstract

It has been demonstrated that, as an indicator of the fragmentation of political system, the effective number of candidates running under the single nontransferable vote (SNTV) system converges to $M + 1$, where M is district magnitude. How these candidates are to be grouped into parties, however, remains unanswered. I propose that the effective number of parties under SNTV is determined by electoral system as well as the voters' preference profiles. When the voters are idealistic and select the candidates according to their issue positions, the centrifugal tendency of SNTV fosters $M + 1$ effective parties. When the voters care only about absolute gains, the need to maintain a stable distributive coalition encourages one-party dominance, unless regionalism hinders the formation of a grand national party. Using the percentage of agricultural population to approximate the proportion of realist voters, I show that this formula explains well the evolution of party systems in Japan, South Korea, and Taiwan.

Keywords: electoral system, SNTV, Duverger's laws, social cleavage, party system

* Associate Research Fellow, Sun Yat-Sen Institute for Social Sciences and Philosophy, Academia Sinica, Taiwan.

THE PUZZLE: HOW MANY PARTIES COULD SURVIVE UNDER SNTV?

The number of political parties that effectively compete under a democratic system manifests not only the representativeness of the system, but also the limit of political realignment. A biparty system, for example, may promote the collaboration among divergent social interests, and a multiparty system their further differentiation. A theory of party system is thus of crucial importance to the understanding of the birth and development of democracies.

Cleavage structure and electoral system are the most commonly considered variables in the theories of party system. The theory of social cleavage is best exemplified by the seminal work of Lipset and Rokken (1967) that links a nation's party system with its path of nation building and industrialization. Nations with both processes unfolding simultaneously are likely to witness multiple parties representing various quadrants of the issue dimensions. Lijphart (1984) even proposes that the number of political parties equals to one plus issue dimensions, assuming that a new issue usually split only one party.²

An obvious problem with the social cleavage theory is that the number of parties that should exist-given the structural condition-can be different from the one that could exist. The vitality of a party depends not only on its ability to take distinctive issue positions, but also on its vote-gathering capacity. Concerning the latter condition, the famous Duverger hypothesis says that the plurality rule employed in single-member districts tends to produce a two-party system, and that a multiparty system usually follows proportional representation (PR) or plurality-runoff systems (Duverger, 1954: 113). An extended Duverger hypothesis is that the greater the number of seats to be elected in a district, the lower the threshold of representation and hence the greater the number of political parties. To be more exact, a system with district magnitude M is most likely to foster $M + 1$ effective political parties (Cox, 1997: 272).³

The Duverger hypothesis works well for the single-member simple plurality (SMSP) system and PR because both require political party to play the major electoral role. With SMSP, each party nominates only one candidate, leaving little room for intraparty conflict to surface during the campaign. With PR, the voters vote for parties instead of can-

didates and the seats are allocated by the vote shares of the parties. In either system, the voters do not waste their votes on the unpromising parties and therefore only $M + 1$ of them could survive.

The same argument can be easily modified to fit the single nontransferable vote (SNTV) of various district magnitudes. Under SNTV, each voter casts one vote for a specific candidate, votes received by a candidate cannot be transferred to the others, and seats are allocated by the plurality rule. With district magnitude M , seats in each electoral district are given to the top- M vote-getters. SNTV is thus identical to SMSP except that M equals one under SMSP and M is usually larger than one under SNTV.⁴ Reed (1991) extends the Duverger's law and suggests that there is a tendency for an M -seat SNTV to produce $M + 1$ viable candidates. Cox (1994) verifies this hypothesis with game theory and the Japanese data. Grofman (1999: 378) conjectures that, under SNTV, the number of parties is closely linked to the average number of seats per constituency. But none of these studies answer a fundamental question: how many parties will the $M + 1$ candidate be grouped into?

Reed and Bolland (1999: 211-226) demonstrate the trend for Japan's opposition parties to nominate one candidate per district, and the Liberal Democratic Party (LDP) to reduce factional duplication. Against the authors' implication that (under SNTV) we should expect the $M + 1$ serious candidates to represent $M + 1$ political parties, an obvious counterevidence is that the LDP has been a multi-candidate party for four decades and thereby achieving one-party dominance. The author's suggestion that perhaps we should treat the LDP factions as the equivalent of parties' (219) does not really solve the problem. As we shall see in the next section, the hypothesis also fails to explain the patterns in Taiwan and South Korea.

As for why the LDP could have maintained its dominance, a popular account is that, exactly because of SNTV, a dominant party is needed to solve the coordination problems among the competing factions (Ramseyer & Rosenbluth, 1993; Cox, 1997). However, this theory explains why the LDP is needed by its factions, but not why the factions are not parties or why the opposition parties cannot coalesce into larger parties to compete with the LDP. Any theory which claims that intraparty factionalism characterizes SNTV (Grofman, 1999: 377) must also explain why some candidates can group themselves into a party, while others cannot.

Explaining the number of parties under SNTV is not only indispensable to the theories of electoral systems in general, but also important to the understanding of East Asian politics. Japan, Taiwan, and South Korea are the only three countries that use SNTV-MMD to select their national delegates in democratically contested elections, and the three cases provide rich data to delineate the relationship between SNTV and party system. The analysis can also shed light on the impact of electoral system on democratization in general, and the future of East Asian democracies in particular.

In this article, I first model the conditions under which candidates competing under SNTV have the incentive to unite into a party, and argue that the conditions are constrained by the voters' preference profiles. Approximating voter composition by the percentage of rural population, I test the major hypotheses at the macro level. I then depict the evolution of party system at the micro level through case studies. In conclusion, I argue that SNTV indeed converges toward an $M + 1$ party system if the number of issue-minded voters grows continuously, but the same process will also lead to the demise of the system.

A THEORY OF THE NUMBER OF PARTIES UNDER SNTV

A straightforward way to see whether the $M + 1$ parties hypothesis holds for SNTV is to examine what actually happens.⁵ To do this, I define party as a political group that has a formal organization and aims at obtaining political power. To measure the effectiveness of a party is thus to compare its relative office-seeking capacity with the others. I therefore adopt the famous Laakso-Taagepera index of the effective number of legislative parties.⁶ It is defined as $P_s = 1/\sum s_i^2$, where s_i is the proportion of party i 's legislative seat. For instance, P_s equals 5 when five parties equally divide the legislative seats because $1/(5(0.2^2)) = 5$. Needless to say, the effective number of parties, being just a number, is just one of the many ways to measure a party system. Depending on research interests, one may be interested in other features of a party system, such as ideology, organization, or leadership. However, because of its simplicity, this index makes cross-national study on large data set easier.

Most important, this index also has some interesting theoretical properties. Denote F as Rae's (1967: 54) index of fractionalization, and C the probability for two randomly se-

lected legislators to be from the same party, we have $P_s = 1/(1-F) = 1/C$. Thus, the effective of number of political parties is conversely correlated to political fragmentation. As a result, even if the index appears an artificial way to represent a party system, it can be used as an operational definition for the fragmentation of a political system. The larger P_s is, the less likely for a pair of randomly selected legislators to be from the same party.

Table 1 displays the average district magnitudes and effective number of parties in Japan, Taiwan, and South Korea. It shows that only in South Korea does the effective number of parties roughly match expectation, whereas in Japan and Taiwan the effective numbers of legislative parties are actually smaller than district magnitude. It should be emphasized that this observation holds even when the adjustment of district magnitude and the changing number of parties are taken into account. The district magnitudes in Japan and Taiwan during the listed periods do not change much, but the numbers of effective legislative parties fluctuate between 1.88 and 3.47 in Taiwan and between 2.05 and 4.2 in Japan. For South Korea, SNTV was used under double-member districts between 1973 and 1985 in four National Assembly elections, but even these elections result in quite variant numbers of effective parties, let alone the large number of parties accompanying some SMSP elections.

Table 1. District Magnitude and the Number of Parties in Three East Asian Democracies

	Average district magnitude	Effective number of electoral parties	Effective number of legislative parties
Japan (1958-2000)	3.56	3.41	2.71
Taiwan (1989-2001)	4.71	3.06	2.76
S. Korea (1963-2000)	1.36	3.98	2.77

Sources: Calculated from electoral outcomes reported by electoral commissions in each nation. For two-ballot elections held in South Korea and Japan, only results at the district level are counted.

It is evident that the $M + 1$ parties hypothesis does not hold, and we need a new theory to give an account of the number of parties that can exist under SNTV. If correct, the theory could also explain some interesting features common to the three nations: the uninterrupted dominance of a conservative party, the fragmentation of the oppositions,

and the political turmoil following the conservative parties' losing powers. Authoritarian rule was ended in South Korea in 1988 but the new regime had not been able to govern effectively; the LDP's stepping down in 1993 occasioned a decade-long governing crisis in Japan; Taiwan's Kuomintang (KMT) handed the presidency to the Democratic Progressive Party (DPP) in 2000 but the new president was only supported by a legislative minority. In all three cases, the end of conservative dominance suddenly gave way to the abrupt multiplication of political parties.

My theory begins with the $M + 1$ candidate hypothesis and studies how they group themselves into parties. To give a quick view of the logic of party formation, I construct a model of electoral competition and assume that two candidates are in the same party if and only if they adopt the same platform.⁷ With this definition, we can also gauge the fragmentation tendency of a system. A platform is any proposal that a candidate signals to the constituents, and it can appear as a position on a public issue or a proposal of resource allocation. Voters in different districts can have different preference profiles, which gives the candidates different coalition-formation incentives. I distinguish two ideal types of voters: (1) the idealist voters who calculate the benefit of policy outcomes according to their ideal points and (2) the realist voters who care only about their absolute gain of goods.⁸ To facilitate discussion, I shall call an electoral district composed mainly of the ideal voters the idealist-type district, and one dominated by the realist voters the realist-type district. The two types are not always mutually exclusive, but they require the candidates to adopt different campaign strategies.

To attract the idealist voters, a candidate must exhibit an issue position that is popular enough to give him the support to win a seat, but not so popular that other candidates may want to take the same position and share the vote. To the candidates running under these constituencies, a political party provides funding and image, both crucial to the reduction of campaign cost. But candidates from the same party face the dilemma of how to divide their vote bases without defecting the party's platform.

In contrast, the realist voters are easier to woo. The vote a candidate can garner from them is positively related to the budgetary resources his party allocates to him. But there is also a dilemma: the candidate may want his party to be large enough to dominate resource distribution in the legislature, but small enough to maximize his individual share.

Both types of candidates calculate the conditions under which he should stay in his party and support the party's platform or resource allocation program, or when he should defect. Appendix 1 portrays two games that capture the above dynamics formally, and renders two propositions that can be translated into plain language: Proposition 1. When the constituents are predominantly idealists, a party nominates at most two candidates in a district, though it is more likely for all parties to nominate only one candidate per district.

Proposition 2. When the constituents are predominantly realists, at least one party nominates multiple candidates, all of whom accept the party's resource allocation scheme.

It is easy to see the intuition behind these propositions. The first proposition, which says that only one candidate represents a party in a district of idealist voters irrespective of district magnitude and the party's strength, seems counterintuitive. It is of course common for large parties to endorse multiple candidates, even when facing the idealist voters. But a centrifugal tendency takes place as soon as too many candidates represent the same party, which forces the party to split. A party endorsing multiple candidates in the same district also runs the risk of over-nominating: the party could have won more seats by nominating fewer candidates. What this proposition envisions is therefore the tendency for large parties campaigning under SNTV to disband when the voters are idealists. By the same token, this constituency type generates a tendency of vote-equalization among political parties: the larger a party becomes, the more likely for its candidate to defect and form new groups. We can also deduce from proposition 1 that large-party dominance under SNTV happens only with realist-type districts. This is what proposition 2 intends to capture. With voters caring only about individual gains, the candidates have no incentive to defect a stable distributive coalition that guarantees them more than what a randomly formed coalition can do.

The two propositions are distinguished by the candidates' vote-maximizing strategies. The idealist voters identify the candidates who best match their issue positions, compelling the latter to adjust their campaign strategy accordingly. Candidates approaching the realist voters have a simpler task of securing the promised resources for their followers. These two strategies can also be compared by the credibility of defecting a large coalition. A candidate deserting a distributive coalition can at best rejoin a random

coalition, which reduces his payoff, and will in the worst case leave him nothing if the original coalition remains dominant. It is futile for a defecting legislator to propose a better deal to his constituents, who by definition select their candidates not by an offer promised but by one realized. In contrast, a politician abandoning an idealist coalition has a different fate. Even if the deserted coalition remains dominant, the defector can choose a new position adjacent to the original one and freeride the dominant party—he can just steal many votes from the dominant party while attracting some new supporters by a slightly different platform.

It is therefore crucial to recognize the preference profiles of the constituents to predict the effective number of parties under SNTV. A country dominated by idealist constituents is most likely to nurture $M + 1$ parties because candidates from the same party have the incentive to break up, and according to the Duverger's law the number of effective candidates is district magnitude plus one. The same number of candidates will compete in a district of realist voters, but some of them will be joining the same party. We can thus calculate the effective number of parties in a country by knowing the composition of voter types.

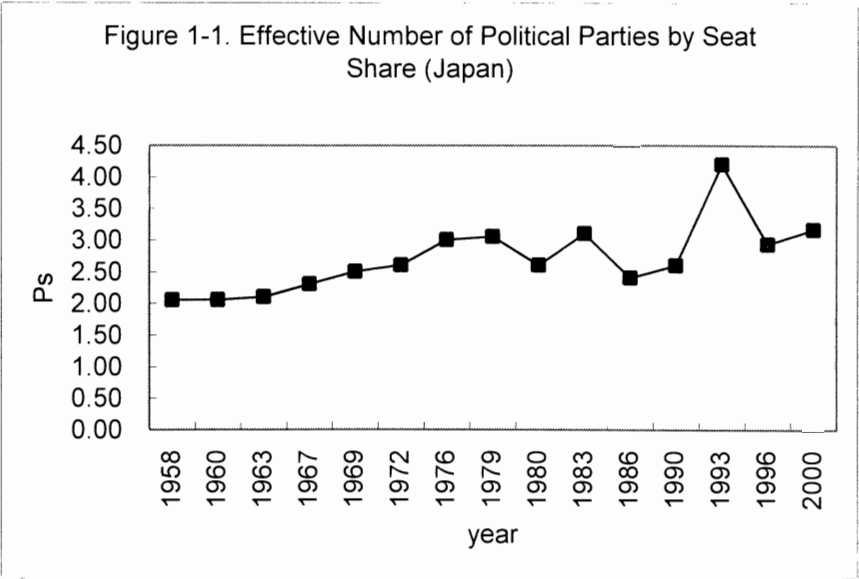
Evidently, the effective number of parties increases with district magnitude and the percentage of idealist voters. The number can be as large as the total number of legislators, when all voters are idealist and all voters care about different issues. The number reduces to $M + 1$ when all voters are idealist but electoral districts are replicas of each other. On the other extreme, the effective number of parties can be as small as one, when all legislators come from the same distributive coalition. We can also derive two corollaries: First, under SNTV, the effective number of political parties increases most conspicuously when district magnitude and the percentage of idealist voters both increase; second, the number declines with the growth of idealist voters only if district magnitude is reduced drastically in the meantime.

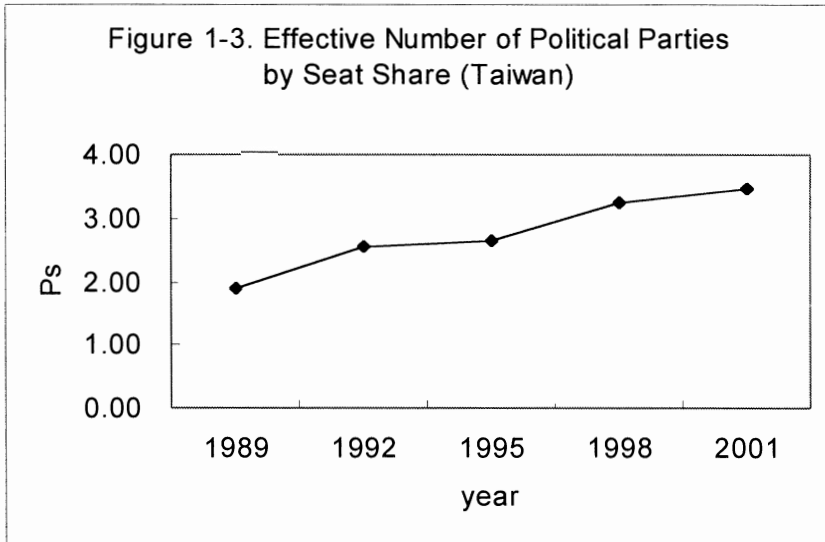
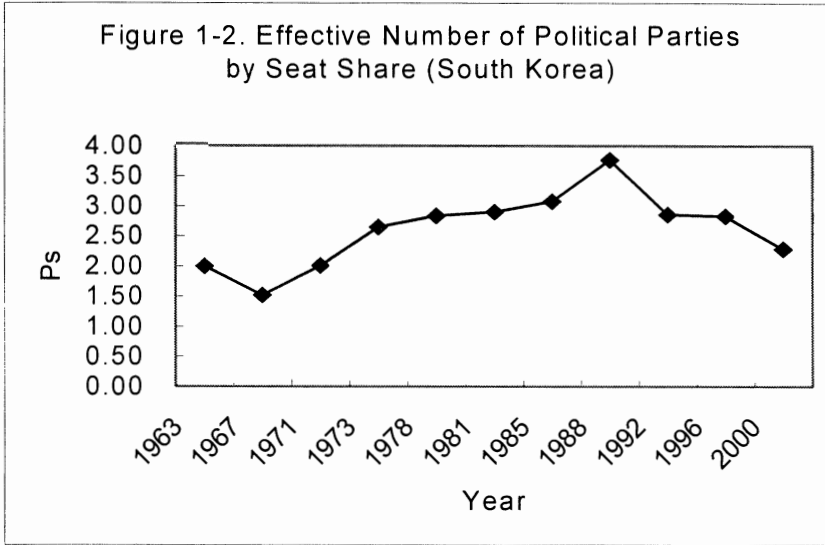
The question is how these propositions can be operationalized to explain the actual evolutions of party systems. In particular, what does an idealist or a realist voter mean? How do we measure the variables depicted in the model? This is the topic for the subsequent sections.

THE EVOLUTION OF PARTY SYSTEMS UNDER SNTV:
EMPIRICAL TESTS AT THE AGGREGATE LEVEL

To render an exact prediction for the number of political parties, many variables in addition to district magnitude need to be specified, such as the profile of voter preferences, the division of vote in and among parties, and the disparity between regional and national cleavages. A country is characterized by regionalism if the discrepancy among electoral districts is itself an issue, and the result can be the flourishing of regionally based parties. As will be shown later, the voters' preferences profile turns out to be the most critical variable. But it is also the most difficult to measure, especially when scores of elections across different countries are to be studied.

Figure 1 presents the actual patterns to be explained. It displays the effective number of legislative parties resulted from fifteen elections in Japan between 1958 and 2000, eleven elections in South Korea between 1963 and 2000, and five elections in Taiwan between 1989 and 2001.⁹ The beginning years marked in Japan the first House of Representatives election after the LDP was formed, in South Korea the first National Assembly election under the Park Chun Hee regime, and in Taiwan a milestone election toward the complete reelection of the delegates in the national legislatures. These elections are competed mostly under SNTV (single and multi-member districts), with elements of mixed system introduced to all three cases in the later phase. As indicated by Table 2, there are in total 31 elections to observe, and they cover most of the democratically contested elections in these three countries.¹⁰





The picture reveals patterns that cannot be easily explained by the shift of electoral systems. For Japan, the effective number of parties fluctuated even before electoral reform was introduced in 1994. South Korea had four SNTV elections under two-member districts (SNTV-TMD) between 1973 and 1985, and that appears to be the only period when the number of parties does not change much. Taiwan experienced five SNTV-MMD elections after the national legislatures were completely opened for reelection, and the effective number of parties grew in tandem. In both Japan and South Korea, the re-

placement of SNTV with a mixed system took place when the effective number of parties reached the height; in Taiwan the call for electoral reform burst out after the election of 2001, when no party dominates the legislature. There is thus an intriguing relationship between the reform of SNTV and the breakdown of one-party dominance, a point to be discussed later.

It is interesting to test how well the model constructed in the previous section explains these patterns. So far no compatible data has been compiled to illustrate voter profiles in the three countries across the listed time spans.¹¹ Based on three reasons, I select the percentage of agricultural labor force to approximate the proportion of realist constituents.¹² First, to attract votes through distributive promises, a candidate must be able to deliver the particularistic goods to specific voters. It is easier for the campaigners to fulfill this task in the rural districts, where the voters are more identifiable but less issue-minded. Second, idealist voting requires media exposure and issue recognition, both related to education and urbanization. Third, the data is demographic, and thus insusceptible to national idiosyncrasies.

To uncover the overall pattern, I plot the effective number of political parties to the percentage of agricultural labor force in Figure 2, and group the data by electoral systems. The latter step is necessary because electoral system determines not only the threshold of representation, but also campaign strategy. With a mixed system that assigns some seats through party-list PR, for instance, political parties may find it easier to focus on public issues than if they are running under SNTV with the same district magnitude. We thus expect to observe qualitative difference among electoral systems.

The figure depicts an apparent negative relationship between the effective number of parties and agricultural dominance. There are also, as expected, differences among electoral systems. But the differences result not so much from the relative impact of the independent variable as in the constant, indicating that what matters is indeed electoral system. Most noteworthy is the curvilinear relationship between rural dominance, as indicated by the percentage of agricultural labor force, and the effective number of legislative parties. It is an understandable result, for the calculation of the effective number of parties involves the square of seat shares. In Appendix 2, I simplified the factors needed to predict this index, and focus on the impact of rural dominance. The model generates a picture very similar to the one illustrated in Figure 2, and can be used to render a quick

prediction for the number of legislative parties as soon as some basic parameters are known.

Table 2. The Change of Electoral Systems in Japan, South Korea, and Taiwan

Election year	Country	Electoral Systems	Average district magnitude
1958	Japan	SNTV-MMD	3.96
1960	Japan	SNTV-MMD	3.96
1963	Japan	SNTV-MMD	3.96
1967	Japan	SNTV-MMD	3.95
1969	Japan	SNTV-MMD	3.95
1972	Japan	SNTV-MMD	4.06
1976	Japan	SNTV-MMD	3.93
1979	Japan	SNTV-MMD	3.93
1980	Japan	SNTV-MMD	3.93
1983	Japan	SNTV-MMD	3.93
1986	Japan	SNTV-MMD	3.94
1990	Japan	SNTV-MMD	3.94
1993	Japan	SNTV-MMD	3.94
1996	Japan	SMSP + PR	1.00
2000	Japan	SMSP + PR	1.00
1963	S. Korea	SMSP + national-PR	1.00
1967	S. Korea	SMSP + national-PR	1.00
1971	S. Korea	SMSP + national-PR	1.00
1973	S. Korea	SNTV-TMD + presidential appointees	2.00
1978	S. Korea	SNTV-TMD + presidential appointees	2.00
1981	S. Korea	SNTV-TMD + national-PR	2.00
1985	S. Korea	SNTV-TMD + national-PR	2.00
1988	S. Korea	SMSP + national-PR	1.00
1992	S. Korea	SMSP + national-PR	1.00
1996	S. Korea	SMSP + national-PR	1.00
2000	S. Korea	SMSP + national-PR	1.00
1989	Taiwan	SNTV-MMD	3.04
1992	Taiwan	SNTV-MMD + national PR	4.41

1995	Taiwan	SNTV-MMD + national PR	4.52
1998	Taiwan	SNTV-MMD + national PR	5.80
2001	Taiwan	SNTV-MMD + national PR	5.80

Sources: For Japan, calculated from Miyakawa Ichiro, *Seiji hando bukku* (political handbook) (Tokyo: Seiji kōhō senta, various years). For South Korea, calculated from official reports of the Central Election Management Committee. Taiwan, calculated from official reports of the Central Electoral Commission.

Note: These systems are used for elections of Japan's House of Representatives, South Korea's National Assembly, and Taiwan's Legislative Yuan. The count for average district magnitude does not include national PR seats.

Figure 2. Rural dominance and party systems

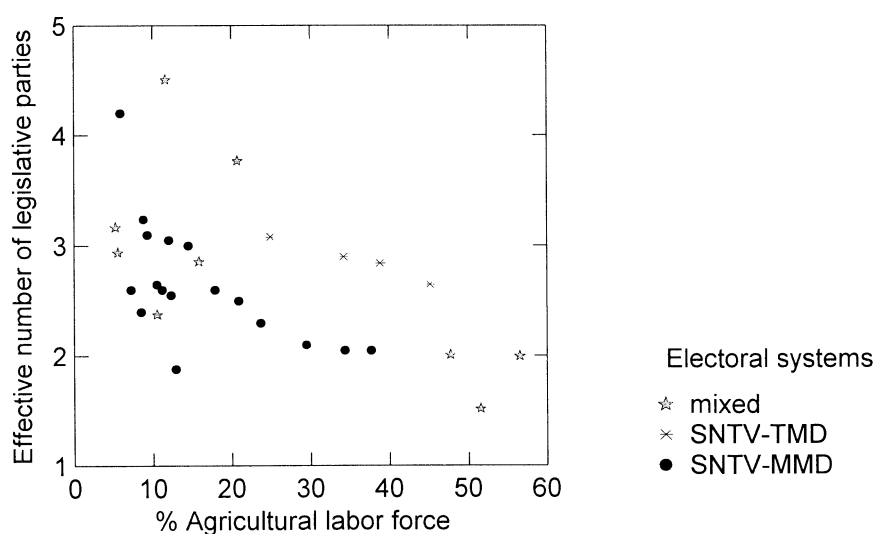


Table 3. District magnitude, agricultural dominance, and the logarithmic of the effective number of legislative parties

Independent variables	Coefficient	Standard error	t
Constant	0.307	0.110	2.792
Average district magnitude	0.048	0.024	2.008
% Agricultural labor force	-0.005	0.002	-3.319

Unit of analysis: election. Dependent variable: logarithmic of the effective number of legislative parties. N = 18. Adjusted R-square = 0.51.

To see more exactly the pattern under SNTV-MMD, I select 18 such elections held in Japan and Taiwan, transform the effective number of legislative parties into logarithmic, and study its correlation with the average district magnitude and the percentage of agricultural labor force in the election year.¹³ The advantages of the logarithmic transformation are that the curvilinear relations can now be studied under a linear regression model, and that the dependent variable can be interpreted in percentage terms.¹⁴

Since the data covers almost all SNTV-MMD elections ever existed, the key information to be noted is the coefficient of the independent variable rather than the significance test. The result in Table 2 says that the effective number of legislatures parties decreases (increases) by 0.5% as the agricultural labor force grows (declines) by 1%. The impact of district magnitude appears weaker, but is still positive as expected. Overall, the statistical evidence confirms conjectures of the previous section. The coefficients can also be used to predict the degree of political fragmentation given a certain district magnitude and demographic structure. For instance, suppose the district magnitude is 4, the percentage of agricultural labor force is 10%, then the effective number of legislative parties should be 3. This is very close to what actually happened in Japan (see next section).

These results are based on national variables, but the real elections take place at the district level. The more variant the district magnitudes are, the more likely an ecological fallacy will happen. To alleviate this worry, I study Taiwan's two recent Legislative Yuan elections, where district magnitudes range between 2 to 17. Single member districts are excluded from the analysis because the effective number of legislative parties in these districts must be one even though the vote share of the winning party can be quite low.

Table 4. District magnitude, agricultural dominance, and the logarithmic of the effective number of legislative parties: the case of Taiwan (1995, 1998)

Independent variables	Coefficient	Standard error	t
Constant	0.336	0.025	13.384
District magnitude	0.006	0.002	3.077
% Agricultural population	-0.004	0.111	-3.783

Unit of analysis: electoral district. Dependent variable: logarithmic of the effective number of legislative parties. N=40. Adjusted R-square = 0.47.

The result is reported in Table 3, and it is quite close to the findings based on national data. Agricultural population is again consequential, whereas district magnitude also exhibits the expected property. From both tables, we obtain a quite robust estimation that the effective number of legislative parties grows by about 0.4~0.5% as the agricultural population declines by 1%. Most important, the unit of analysis in the latter test is electoral district, suggesting that the fragmentation of political parties is not just a temporal trend, but also a spatial pattern that is related to socio-economic structures. The next section examines what this figure mean in reality, and what micro dynamics is responsible for this macro outcome.

THE EVOLUTION OF PARTY SYSTEMS: A MICRO PERSPECTIVE

Beneath the changing numbers of political parties, individual parties persist, break up, extinct, or merge. Macro variables, such as electoral system and constituency structure, must come down as constraints of decision-making at the micro level. We can then probe into the actual process of party system reformation and examine how the macro dynamics corresponds with the micro choices. In particular, we expect to find the growth of urban voters tearing the dominant party apart, and the reduction of district magnitude jeopardizing the small parties. For each case, I examine first the change of electoral systems, and then its impact on party systems.

The Japanese Case

The electoral systems used in modern Japan underwent several changes, but SNTV-MMD-including the so-called large district system-has been used most of the time since the nation began to hold elections in 1890.¹⁵ The earliest attempt to abandon SNTV-MMD in Japan was initiated in 1956 by Prime Minister Hatoyama Ichiro, who aimed at securing the ruling status of the newly established LDP, but his proposal to replace SNTV-MMD with SMSP was rejected by the Diet. Facing the LDP's deteriorating electoral strength, Prime Minister Tanaka Kakuei proposed in 1973 to change the existing system into a mixture of SMSP and PR, but this plan was turned down again. In January 1994, the Japanese Diet finally approved to replace SNTV with a double-ballot mixed sys-

tem, where each voter can cast two ballots and 300 seats will be elected by SMSP, in addition to 200 seats elected in 11 PR districts.¹⁶

SNTV is thus crucial to the understanding of Japan's modern party politics. As regards the evolution of party systems, several periods can be identified. The post-WWII flourishing of political parties ended in 1955, when the LDP and the Japan Socialist Party (JSP) were formed.²⁸ In the election of 1960, the Democratic Socialist Party splintered from the JSP and in the subsequent election of 1962 the Clean Government Party (Kōmeitō) was born. The LDP remained dominant in the meantime, and the last wave of party fragmentation took place in the early 1990s when electoral reform became the focus of political debate. Hosokawa Morihiro, who defected from the LDP and formed the Japan New Party in May 1993, launched the first strike. The following years saw rapid birth of new parties. In June 1993, when the Miyazawa cabinet collapsed in a vote of no confidence, some LDP Diet members left the party and established the New Party Harbinger (Sakigake) and the Japan Renewal Party.¹⁸ The New Frontier Party was formed in December 1994 by a merger of the Japan Renewal Party, the Clean Government Party, the Japan New Party, the Democratic Socialist Party, and other parties (excluding the Japanese Communist Party) outside the three-party coalition government. On the eve of an election, the Democratic Party of Japan was assembled on September 28, 1996, uniting 57 dissenters from other parties into Japan's third-largest political party. On December 26, 1996, former Prime Minister Tsutomu Hata and 12 Diet members resigned from the New Frontier Party and announced the formation of the Taiyotō (the Sun Party). Subsequent to the 1996 legislative elections, the New Frontier Party and the Sun Party were dissolved, and some JSP members organized the New Socialist Party. In late 1997, the Liberal Party was formed by former members of the New Frontier Party; the Democratic Party of Japan was joined by members of the Social Democratic Party and the New Party Harbinger.¹⁹ Most recently, the Clean Government Party incorporated the New Peace Party in November 1998 and was renamed the New CGP (Shin Kōmeitō), and a group of Liberal Party splinters launched the Conservative Party (Hoshutō) in early 2000. Both are now joining the LDP-led coalition government.

The burgeoning of new parties is just a phenomenon in appearance, and can be easily explained by electoral system and social change. Urbanization encourages party fragmentation even under SNTV-MMD: the new parties are in general urban-based, and the

number grows as urbanization continues (Kohno, 1997: 116-134). Meanwhile, the LDP safely maintains its legislative dominance by over-representing the rural interests. One-party dominance and party fragmentation are therefore two sides of the same coin, and the 1993 reform marked a threshold when the LDP's conservative bases were no longer sufficient to support its dominance. The LDP was able to mitigate the unfavorable effects of the electoral reform by insisting that three-fifth of the seats are to be elected under SM-SP. The new parties, living on the discontents toward the LDP, find the PR seats crucial for their survival. That is why, in both theory and reality, the effective number of parties does not match the actual number of parties. The LDP, though no longer upholding a legislative majority, is still Japan's most powerful party in contrast to the fragmented new parties.

The South Korean Case

In comparison with Japan, South Korea has a shorter electoral history but more frequent alterations of electoral system, all accompanying the transition of political leaderships. Members of the National Assembly were first elected under SMSP between 1948 and 1961 under the Rhee Syngman government. When Park Chun Hee founded his military regime in 1963, some national seats were added and allocated to the major parties under the PR formula. The system was replaced in 1972 with SNTV double-member district to increase the ruling party's urban representation (Lee, 1999:56; Mo & Brady, 1999:249) and ease party competition (Fukui & Lee, 1998:54). In addition, the President could appoint 73 national delegates to the National Assembly. These appointed seats were substituted with national proportional representation in 1980 when Chun Doo Hwan took power. Also, national seats accounted for one-thirds of the seats in the National Assembly, and two-thirds of these national seats were rewarded to the plurality party in each constituency, a formula obviously disadvantageous to the minor parties.²⁰ Additionally, the partition of constituencies over-represented the rural votes and favored the government party (Brady & Mo, 1992: 407). After the electoral reform of 1988, the national PR seats, now reduced to a quarter, are in half allocated according to party vote share in local districts, and in half allocated to the plurality party in the constituencies. Some scholars therefore see the Korean system as a plurality system (LeDuc et al., 1996: 80).

Intricacies of the national PR seats aside, the Korean system is characterized by SNTV used in single or double member districts, and this exerts significant impacts on the country's party systems. The low district magnitudes create a disproportional allocation of seats, which forces the political parties to carefully choose their nomination strategy. This in turn enlarges the variance of the effective number of parties. In general, the authoritarian party nominates candidates with local basis in the rural districts and the oppositions endorse prominent figures to collect the urban vote. But it is to the advantage of all parties to select candidates who have strong local connections. With $M = 2$, the authoritarian party can take both rural seats if they can find the proper candidates, who according to the previous theory have the incentive to stay in the conservative coalition. The same theory suggests that the opposition camp necessarily suffers from internal schism as it grows (Mo & Brady, 1999: 235).²¹ There was even an implicit collaboration between the authoritarian party and one of the two main opposition parties to monopolize the two seats by both nominating local people (Lee, 1999). The urban-based opposition party is left with no room in the rural constituencies.

As shown in Figure 1-2, the period between 1963 and 1985 saw a gradual augmentation of the effective number of parties, reflecting both the growth of urban voter and the introduction of double-member district SNTV. The actual numbers, however, are in average higher than the statistical model predicts. The greatest deviance occurs in 1988, after which the actual number of parties remains higher than expected. The major reason is the intertwining of electoral politics with democratic movement in the context of the country's regionalism.

Park Chung Hee terminated civilian rule in 1961 in a coup but was forced to restore constitutional rule in 1963 to strengthen his legitimacy. Electoral opening became indispensable, and only through political suppression and president-controlled allocation of national PR seats could Park's New Republic Party (NRP) maintain legislative dominance. The use of SNTV double-member district between 1973 and 1985 did encourage the opposition camp to disintegrate, but it did not grant the NRP a stable majority. These elections therefore created a tri-party system, corroborating the $M + 1$ hypothesis. Park was assassinated in 1979 and succeeded by Chun Doo Hwan in 1980, but the new regime also suffered from a lack of legitimacy. To ease popular discontent, the ruling Democratic Justice Party (DJP) adopted a new constitution in 1987 that required the president to be pop-

ularly elected. In the meantime, a new electoral law reformed the allocation of PR seats and reduced district magnitude to one. One would expect these changes to produce a two-party system, for the legislative and presidential elections both opened only one seat for competition.

The problem is which two of the three major forces will coalesce, if a two party system is to emerge. Kim Dae Jung and Kim Young Sam, the two leading opposition figures, were supposedly the most natural allies, and they actually negotiated to unite under the banner of the Reunification Democratic Party (RDP) on the eve of the 1987 presidential election. The plan did not realize, because Kim Dae Jung decided to create his own Peace and Democracy Party (PDP). The two leading dissidents both joined the presidential race with the DJP's Roh Tae Woo, who took advantage of the opposition split and won the election by a slight margin. This setback did not reconcile the two opposition leaders, but instead prepared the formation of a grand conservative coalition. In early 1990, Roh's DJP merged with Kim Jong Pil's New Democratic Republican Party and Kim Young Sam's RDP to form the Democratic Liberal Party (DLP). The merger, initiated by Roh's poor legitimacy, suggests an attempt to follow the LDP model of one-party dominance.²² The RDP members who declined to join the DLP founded the Democratic Party (DP) by incorporating Kim Dae Jung's New Democratic Party, which was established in April 1991 to boost the PDP's strength.

According to the model introduced earlier, the DLP could be a stable coalition if its goal is purely resource distribution. But the DLP was not exactly founded to serve that purpose. It is regionalism, which has long alienated Kim Dae Jung's southwest constituencies from the national center, that plays the crucial role. This cleavage is historically rooted, and is reinforced by the accomplishment of democratization and the reduction of district magnitude. Regional interest mobilizes popular support easily when democratization is no longer an overriding issue, and the support naturally goes to the parochially based candidates because only one winner is to be selected. The same centrifugal tendency can be found at the opposition's side.

South Korean politics in the post-democratization period is thus characterized by a mixture of intense partisan fights and chaotic coalition reformations. Although Kim Young Sam was elected president in 1992, the victory did not prevent the breaking up of the DLP. Kim Jong Pil first fled from the DLP and created the United Liberal Democrats

(ULD) in 1995. In the same year, Kim Dae Jung built the National Congress for New Politics (NCNP) and headed an NCNP-ULD coalition to win the presidential election of 1997.²³ On the other side, the DLP was renamed into the New Korea Party in April 1996, and coalesced with the Democratic Party to give birth to the Grand National Party (Han-nara Dang). A system of biparty competition seems to be emerging, yet there is no sign that either side will be able to maintain a stable majority in the National Assembly, even with the help of single-member districts.

The Taiwanese Case

Like in Japan, SNTV-MMD has a long history in Taiwan. It can be traced back to 1935 when the island was under Japanese occupation.²⁴ The KMT inherited the same system after Japan surrendered in 1945, and since then made it the principal electoral system for Taiwan's legislative body elections, both at the national and the local levels.²⁵ Partial reelection of Taiwan's national legislatures did not begin until 1969 and it took another 20 years for the permanent delegates to be completely replaced.²⁶ Serious discussion of the consequences of SNTV-MMD therefore did not rise until the early 1990s.

Due to the late electoral opening of Taiwan's national legislatures, we have only five elections to observe. Cleave structure in Taiwan differs from both Japan and South Korea: Taiwan has a much milder regional clash than in South Korea, but a more salient ideological dispute than in Japan. As a result, the voter's preference profile becomes the major determinant of the effective number of parties. According to the previous theory, the number should increase with the idealist voters, in which case the parties will occupy different ideological positions. The larger a party becomes, the more likely for it to split along the ideological line. The Duverger's law would envision six viable parties, because the average district magnitude is about five.

The KMT has been dominating Taiwan's political scene since it retreated to Taiwan in 1949 after losing the Chinese civil war. Not surprisingly, its survival hinges on an extensive patron-client network built mostly in the rural districts. With no access to the political and economic resources essential to maintaining a distributive coalition, the opposition could only resort to the idealist voters who are disgruntled of the KMT's authoritarian rule and ideological agenda. By criticizing the KMT's claim that the Taiwanese government represents the whole China and therefore cannot be opened for fair competition,

some non-KMT activists soon gained popular support and founded the Democratic Progressive Party (DPP) on September 28, 1986. But the KMT faced an ideological attack from the other flank as well. In August 1993, a group of mavericks broke away from the KMT and established the New Party (NP), blaming the party's undemocratic practices and ideological degeneration. As can be expected, the NP found its stronghold in the urban areas. All three parties have won seats in various legislative bodies, though only the KMT and the DPP have been able to secure administrative offices. Yet the average district magnitude in Taiwan's legislative elections is still large enough for more minor parties to survive. In the National Assembly election of 1996, the Green Party won one seat. At roughly the same period, the Taiwan Independence Party (TAIP) was formed, attracting many former DPP supporters who were dissatisfied with the DPP's toning down of the pro-independence slogans. The party has captured one seat in the Legislative Yuan election of 1998. In the same election, the newly formed New Nation Association, Democratic Alliance, and Non-Party Alliance each won one, four, and three seats.

It turns out that the vote bases of these minor parties are too narrow to support long-term survivals, and Taiwan's political map remains divided by three major parties that have different ideological nuances. In the presidential election of 2000, James Soong, a prominent KMT elite, broke with the party and joined the race as an independent candidate. He was almost elected, and after the setback immediately assembled the People First Party (PFP). Boosted by Soong's popularity, the PFP very quickly developed into an influential legislative party. But the change it will bring to Taiwan's party system remains to be investigated. The effective number of parties will increase if the PFP chooses to reclaim its frontier in the KMT's strongholds, most possibly by posing its leader as a promising presidential candidate in the future. Most recently, some politicians close to former president Lee Tenghui established the Taiwan Solidarity Union (TSU), attempting to join the DPP and form a majority coalition after the 2001 legislative election. Overall, the probability for the Taiwanese parties to split is strongly correlated with their sizes, and this corroborates the vote-equalization thesis proposed earlier.

CONCLUSION

Japan, South Korea, and Taiwan are three East Asian democracies that share in-

triguing common features, such as the speedy economic growth under the guidance of a conservative regime, the overrepresentation of rural interests, the predominance of personalism in political life, and the sudden outburst of governing crisis after multipartism replaces one-party dominance. In this article, I propose two variables that, when combined, render a more dynamic account of the evolution of party systems: demographic change and electoral reform. The three societies all went through rapid industrialization and urbanization, and all adopted the peculiar system of SNTV to elect their legislators. I demonstrate that the growth of idealist voters contributed to the fragmentation of party system, and that electoral system imposes a constraint on party realignment. As a candidate-based electoral system, SNTV makes it natural for some parties to grab votes by a patron-client network, which works more efficiently in rural constituencies where interpersonal relations are prevailing and interests in public policies are low. For this reason, conservative parties in all three cases do not exhibit salient ideological labels, and could steer a developmental state through all-inclusive political agendas. For the same reason, the clientelist parties are doomed to decline as the voters become less accessible and are more concerned with public policies.²⁷ In all three cases, single-member district was regarded by many as a remedy for the unwanted consequences of SNTV-MMD — corruption in particular. But this reform does not necessarily reduce the number of parties. In South Korea, a mixture of single-member district and PR actually encourages regionalism, which in turn fragments the political system even further.

As regards the theories of electoral system in general, this article suggests that some research questions must treat the size of party as an endogenous variable. Many works correlate party size with seat bonuses without actually explaining why some parties are larger (Cox & Niou, 1994; Cox & Rosenbluth, 1994). Whether SNTV is super-proportional or sub-proportional (Kawato, 1997) cannot be answered without specifying the party system one is studying: the increase of the effective number of parties certainly enhances proportionality. The distribution of strengths among existing parties also plays a vital role in directing the choice of electoral systems (Boix, 1999), but this means that we cannot know the latter without first having a theory of the former. Since party system is itself affected by electoral system, we can illustrate a dynamic relationship between the two. Under SNTV, the end of one-party dominance becomes a critical moment for electoral reform, because the old regime has the incentive to prolong its life by instituting a

new system. As a semi-proportional system, the fate of SNTV can go either way: the status quo regime will hope to install a less proportional system if the emerging challengers are weak, and the other way around.

In conclusion, SNTV does contribute to one-party dominance, but it happens under particular historical conditions. Insofar as urbanization is inevitable, the authoritarian party living on traditional networks will sooner or later wither, and so will SNTV be abandoned. It is unlikely, however, for it to be substituted with pure PR or SMSP, for all electoral reforms have to be approved by a legislature where some members benefit from SNTV. As long as voters cast their ballots for specific candidates, clientelism and personalism will not disappear in the East Asian democracies.

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Appendix 1. Models of Party Formation under SNTV

The following models consider two ideal types of electoral districts. In the idealist-type district, a voter votes for the candidate who reveals the closest issue position, and the candidates adjust their issue position to maximize votes. A set of candidates are in the same party if and only if they take the same issue positions.

MODEL 1 (Idealist-type district). The voters in an electoral district have Euclidean preferences in an N -dimensional issue space S . Let S be a compact set. A party nominates $K(1$ candidates in the district, and proposes $X \in S$ as its platform. Assume that candidates on the same issue position divide the vote share equally. A voter votes for the candidate who best matches his ideal point, and the candidates have to decide whether to accept X or not in order to maximize their vote share. **THEOREM 1.** X is acceptable to no more than two vote-maximizing candidates.

Proof. Suppose q candidates are on position X , and these candidates constitute set $C = \{c_1, c_2, \dots, c_q\}$. We can find $T_C \subset S$ as the set of voters who find C best matches their ideal point, and that T_C generates a vote share V , which is divided equally among members in C . Note that there is always an hyperplane that equally divides S and passes through X . Therefore, some $c_i \in C$ can always move to X^* which is infinitesimally close to X , such that his new vote share becomes $V/2 - \epsilon$. Suppose $V/2 - \epsilon < V/q$, it must be that $q < sV/(V - 2\epsilon) < 3$. QED.

In the realist-type district, a voter votes for the candidate from whom he can obtain the maximum amount of material gains. The ability for a candidate to get access to the material goods to be distributed to his constituents depends on the party he joins. The larger the party the more certain for the candidate to secure the goods, but his relative share of the goods also becomes smaller.

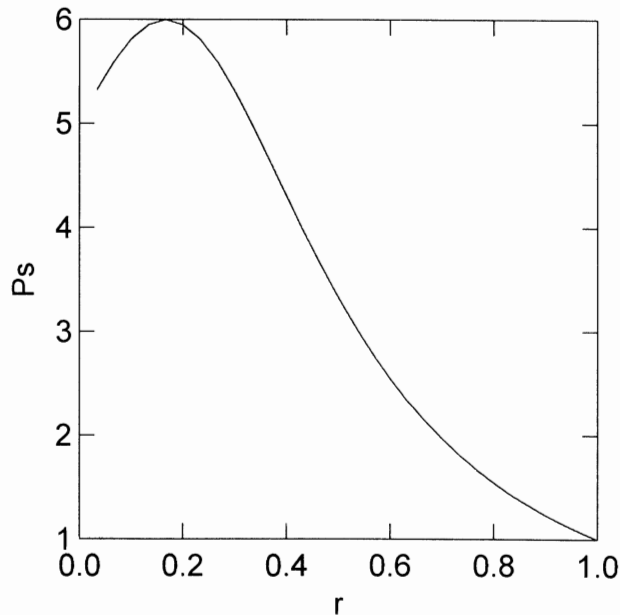
MODEL 2 (Realist-type district). Consider a legislature that is to divide a dollar through majority rule, and members in a winning coalition divide the spoils equally. The amount of resources a candidate in party W can credibly promise his potential supporters is thus $\Pr(W \text{ is a winning coalition}) \times (1/|W|)$.

THEOREM 2. Let there be N member in the legislature. No candidate defects a party of size $|W| > N/2$.

Proof. With this size, the average resource to be gained is $1/W$. In a randomly formed coalition of size $C \geq N/2$, the chance for a randomly picked legislator to be in any of these coalitions is $1/2$, and the best he can get is in a coalition of size $N/2$. The best expected payoff by defecting the original coalition and join a randomly formed one is thus $1/(N/2) \times 1/2 = 1/N$, which is less than $1/W$ as long as $W < N$. There is therefore no incentive for the members of the party to defect, creating a Nash Equilibrium. QED.

Appendix 2. A Quick Prediction for the Effective Number of Political Parties

Consider an electoral district where a distributive party gains r proportion of the total seats and the other x parties equally the remaining $1-r$ proportion, and that $r > (1-r)/x$. Inputting these seat shares into the Laakso-Taagepera index of the effective number of legislative parties, we have $P_s = 1/\sum s_i^2 = 1/[r^2 + x((1-r)/x)^2] = x/[xr^2 + (1-r)^2]$. The relationship between P_s and r can be simulated by assuming x to be a particular function of district magnitude. The picture below assumes $x = 5$, and indeed generates the expected pattern as soon as $r > 1/6$. For $r < 1/6$, the distributive party gains even less than its competitors, so the number of parties declines until $P_s = 5$.



To extend the formula to the whole nation, we can assume a distribution of r among districts. It can also be applied to double ballot systems where some seats are allocated by

PR. The electoral districts can be distinguished into two types, one under typical SNTV-MMD and the other under PR. The effective number of parties under PR is simply x , and the one under SNTV can be calculated as above.

註 釋

- 註 一：The author appreciates financial support from the National Science Council (NSC-90-2414-H-001-013) and helpful comments from professors Chu-cheng Ming, John Fuh-sheng Hsieh, Chi Huang, Huo-Yan Shyu, and Emerson M. S. Niou.
- 註 二：When the new issue splits more than one party, some party will decline because it cannot arouse attention on an issue; when the number of issues is greater than the number of parties, some issues have to disappear or find representation in the package of a party. For detailed explanation, see Taagepara & Shugart (1989: 92-103).
- 註 三：There is a crucial difference between the hypotheses of $M + 1$ parties and $M + 1$ candidates, a point to be elaborated later.
- 註 四：For this reason, SMSP should be treated as a special case of SNTV. In this article, SNTV includes SMSP, and SNTV under multimember districts will be abbreviated as SNTV-MMD.
- 註 五：I focus on the Duverger hypothesis because the number of parties in these three cases does not fit the theory of issue dimension. In Taiwan, the emergence of a dominant issue (unification-independence) actually increased the number of parties. Miyake (1989: 160-168) suggests that in Japan the major parties and voters can be located on a progressiveness spectrum, but Japan never has a two-party system. South Korea did not have a two-party system even when democratization was a dominant issue (Mo & Brady, 1999: 237) and $M = 1$.
- 註 六：I use this index to describe seat allocation under SNTV. It is highly correlated with the effective number of electoral parties, measured by the parties' vote shares, and the gap between the two indexes indicates the disproportionality of the electoral system. This index captures the key dimension of Sartori's (1976) classification of party systems, namely, the effectiveness to govern or compete. With N parties but only one dominant, the effective number of parties will most likely be greater than one but less than two.
- 註 七：Apparently, not all candidates in the same party share exactly the same issue po-

sition. This assumption is meant to gauge a party's centrifugal tendency, which is positively correlated with the fragmentation of the party system. Thus, in empirical test, factors contributing to a party's internal division should also explain the increase of the number of parties.

- 註 八：An idealist voter tends to vote by issue, whereas a realist voter by his personal connection with the candidates. In reality, many factors affect a voter's voting decision, such as education, age, gender, ethnicity, or party identification, and they could be treated as background variables.
- 註 九：For Taiwan's party system between 1949 and 1992, see Ming 1992.²¹ Excluded are Japanese elections before the LDP was born (in 1955), South Korean elections under the Rhee Syngman government, and Taiwan's partial elections before the national legislatures were completely reelected.
- 註 十：The only data that explicitly aims at a cross-national comparison of voting behavior among the East Asian nations is being collected by a research team at the National Taiwan University, but even that project concentrates only on the contemporary elections.
- 註十一：The percentages of agricultural labor force in Japan and South Korea are obtained from the World Tables compiled by the World Bank in various years; Taiwan's data is from Taiwan Statistical Data Book released by the Council for Economic Planning and Development.
- 註十二：In theory, the effective number of parties can range between 1 and the number of voters. The latter happens if all voters participate in the election and vote for themselves. In reality, however, the number tends to be normally distributed and is positively correlated with district magnitude. The statistical tests therefore do not violate the assumptions of linear regression.
- 註十三：For $\ln Y = a + bX$, $d\ln Y/dX = b = (dY/dX)/Y$. This amount indicates the ratio of the change of Y (produced by X) to Y .
- 註十四：Basically the change alternated between the single-member district system and multi-member district systems. The so-called large-district system, used between 1902 and 1920, was actually the same as SNTV-MMD in definition.
- 註十五：The size of the House of Representatives was later reduced to 480, leaving only 180 seats to be elected by PR.

- 註十六：The Japan Socialist Party was renamed into the Social Democratic Party of Japan in 1991.
- 註十七：Core members of the Renewal Party were the mavericks of the LDP's Takeshita faction. It was believed that the vote of no confidence passed because these members were already prepared to defect. Sakigake was a small party led by former LDP Diet member Takemura Masayoshi.
- 註十八：And three additional parties were established after the New Frontier Party collapsed.
- 註十九：For example, in the 1985 election the ruling party won 46% of the district seats with 35.4% of the popular vote, but national seats raised the party's seat share in the National Assembly to 54%.
- 註二十：Brady and Mo (1993) argued that South Korea had a two-party system before 1973 and attributed it to the dominance of the issue of democratization. But district magnitude is an obvious alternative explanation.
- 註廿一：According to Mo & Brady (1999: 249), this strategy did not work because the necessity for political parties to form a majority coalition is not as strong as in Japan, where a parliamentary system is used.
- 註廿二：In this election, Kim Dae Jung's major rival Lee Hoi Chang represented the Grand National Party, where many members came from the DLP.
- 註廿三：Most likely, the colonial government introduced this system because it was used in Japan at the same time.
- 註廿四：It still remains to be investigated why the KMT decided to keep this system. Possible reasons are two. First, as demonstrated by the colonial experience, SNTV-MMD suited the needs of an immigrant regime. Second, the same system was used in China for the election of national legislatures after 1945.
- 註廿五：The national legislatures include the National Assembly and the Legislative Yuan, but only the latter is given a substantial power over legislation. For this reason, the effective number of legislative parties counts only the seat share of the Legislative Yuan (reelected every three years).
- 註廿六：Many studies have highlighted the urban-rural cleavage in the East Asian countries. Most works, however, attribute one-party dominance in Japan and South Korea to the overrepresentation of rural votes, rather than why the dominant party has rural bases.

選舉制度、選民偏好與 政黨體系的分化：東亞三國的比較

林繼文*

《 本文摘要 》

關於「單記非讓渡投票」選制之下的有效政黨數目，曾有學者延伸杜弗傑定律，主張在應選名額為 M 的選區中，有效參選人數目應趨近於 $M+1$ 。然而，這 $M+1$ 位參選人究竟來自幾個政黨，卻仍沒有定論。本文主張，單記非讓渡投票制之下的有效政黨數目取決於選區應選名額與選民的偏好結構。當選民重視政策理念時，此一選舉制度的「離心效應」將使有效政黨數趨近 $M+1$ 。當選民僅重視分配性的利益時，政黨數目會因為部份候選人必須組成穩定的分配聯盟而少於 $M+1$ ；但政黨若有地域色彩則數目又會增加。本文假設理念型選民的比重和都市化程度成正比，並以農業人口比例和選區應選名額為自變數，解釋了台灣、日本與南韓在過去數十年間有效政黨數目的變化。

關鍵字：選舉制度、單記非讓渡投票、杜弗傑定律、社會分歧、政黨體系

* 中央研究院中山人文社會科學研究所副研究員。

審查意見答覆

審委意見(一)

本文試圖將選民的偏好納入選舉體系的理論，用以解釋 SNTV 選舉制度下， $M+1$ 個候選人屬於幾個政黨。就學理而言，這無疑是個有趣而且重要的課題，可以填補目前理論上的一個盲點。作者以選民之偏好為「選區應選人數」之外的重要因素，也很合乎 Duverger 之機械因素、心理因素交互作用的思考模式。

不過本人覺得在接受刊登前，必須請作者澄清並修正下列幾點：

- 一、本文的分析單位，從附錄之模型看來，應是選區（district），因此實證檢定部分，應該也是以選區為單位。果若如此，則以全國歷次議會選舉後之 effective number of legislative parties（即本文實證分析之依變數）似乎並非形式模型所要解釋的對象？
- 二、農業人口比例測量 realistic-type voters，顯然需要更強的理論基礎。否則實證分析充其量只是指出人口結構對政黨競爭程度之影響。
- 三、統計分析的資料，顯然是 pooled cross-sectional time series，但分析方法上，卻為考量此一特性。
- 四、其他較次要的地方，如 Figure 1 三個國家應繪於同一圖中，便於參照；文中有兩個 Table 2；台灣1989年立委選舉尚未全面改選，似不應納入分析……等，亟需更正。

試圖解答之問題，十分重要，形式理論部分，也對文獻有新的貢獻。不過在實證檢定上嫌薄弱些，應再加強，才有說服力。

審委意見(二)

- 一、本文對政黨數量計算的相關理論，尤其是在 SNTV 制度之下的文獻探討提供有用的參考。
- 二、政黨政綱與選民偏好的關係，在 SNTV 強調候選人個人特性的情形下，選民偏好並不必然意味選民認同該政黨的政綱。
- 三、利用鄉村人口（農業）比例說明該類型地區較屬於 realist 選區，其理由雖然有理，但這些理由卻可以有兩面的陳述：作者所言提出政黨或候選人較易對這些選區的選民提供特定的服務與承諾，但在實際上，如果選民可以相信政黨的確可以提供此種

服務或承諾，則政黨對於提名人選就不必然侷限在 realistic 候選人。

四、即使在 idealist 選區中，政黨仍然可以規劃提名多餘兩名的候選人，只要政黨有能力將這些具有形象能力的候選人在選區中進行各種形式的配票作為時，並不必然會有過度提名的情形，而且此種作為與形成政黨內部的分裂沒有直接關聯性，甚至有可能會強化政黨紀律。從某種程度來講，政黨在此選區的實力將是決定這些情形發生與否的關鍵，如能將政黨實力問題先行確認，對於此種假設將更為堅強，此一論點作者在結論時有提及，可惜在文中沒有加以處理。

五、整體而言，本篇主題研究焦點相當集中，如能將前述疑點進一步加以闡述清楚，對於瞭解台灣、韓國、日本的選舉研究制度與政黨體系的關聯性有更大的貢獻。

論文評審意見的答覆

審委意見(一)

- 一、在理想上，本文的分析單位的確是選區，依變項則應是每一選區的有效政黨數目。但因本研究橫跨三個國家，時期又長達數十年，如果要完全以選區為單位，在資料取得上有所困難（其中南韓的部份尤其欠缺）。以選舉年為單位進行總體的分析，實在是不得不然。為了彌補這個缺憾，筆者也以台灣的選區資料進行了比對，結果發現預測值和以全國為單位的分析十分接近。相信如果能取得韓國的資料，應該會有類似的發現。
- 二、農業人口的確只是 realist-type voters 的一個替代變數。文中對於這個變數在理論上的意義已有說明。在研究操作上，使用這個替代變數是因為學界並未曾針對三個國家過去數十年的選民結構進行過可比較的測量，而農業人口則是比較沒有爭議的客觀指標。
- 三、在理論上，用 pooled cross-sectional time series 來處理本文的資料當然是比較妥當的。但因個案數目有限（且已是母體），而三個國家的資料所橫跨的時間並不一致，運用此一方法有實際上的困難。
- 四、Figure 1三個國家的選舉間隔和期間都不一致，置於一圖在視覺上會有些混亂。表的標號已更正。

審委意見(二)

- 一、本文並未假設理念型的選民認同的是政黨的政綱。事實上，本文的主旨正是要說明，由於 SNTV 乃是以候選人為中心，選民不可能只憑政黨的政綱來辨認候選

人。

- 二、如果政黨可以提供選民特定的服務或承諾，卻不必然提名 realistic 的候選人，就表示選區並不完全是 realistic 的。根據本文的假設，這時政黨會面臨離心的壓力（除非只提名一名 idealist 的候選人）。因此，此一政黨基本上的功能仍在於進行分配和提供服務，而 idealist 的傾向越強，就越有分裂的可能。
- 三、在 idealist 的選區中，政黨固然可以透過配票將選票分配給一名以上的候選人，但其成功需要選民有很高的政黨認同，並認為該黨候選人的政見或理念是無法區辨的。這異於本文假設 idealist 選民是完全依理念來投票。如依本文的模型，同黨候選人如果超過兩名，就不可能完全理念一致，並產生分裂的驅力。
- 四、總之，本文要探討的是政黨分裂的趨勢而不見得是實際政黨數目的增加，所以在標題上做了相應的修正。這也同時回應了審查人的前兩項問題。