How Does the Electoral System Affect Voting Behavior

in the 2004 Upper House Election in Japan ?

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Abstract

Japanese Lower House elections under Single Non-Transferable Vote (SNTV) rule were often said to be candidate-orientated rather than party-orientated. While some researchers pointed our Japanese political culture as the cause of candidate-orientation among voters, others argued that its electoral system, SNTV, caused electorates more candidate-orientated. Rochon (1981) tested both hypotheses, electoral system hypothesis and political culture hypothesis, by using survey data in 1967 Japanese Lower House election. His analysis confirmed the electoral system hypothesis while it rejected the political culture hypothesis. In this paper, the hypothesis that SNTV facilitates candidate-orientation is tested with 2004 Upper House election data in Japan. This analysis finds that SNTV causes electorates to be more candidate-orientated rather than party-orientated in the Upper House election as well. Also, on the contrary to the results of analysis conducted by Rochon (1981), this paper confirms that voters in rural districts where stronger traditional political culture seems to exist are more candidate-orientated than those in urban districts.

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1. Introduction

The impact of electoral systems has been examined from various perspectives. Some focus on the impact on party systems (Duverger, 1955; Lijphart 1994), and others pay attention to the impact on how electoral campaigns are conducted (Maeda, 2009; Carey and Shugart, 1995; Grofman, 2005). The question about the styles of an electoral campaign has been whether a campaign is party-centered or candidate-centered. Some electoral rules are known to give more incentives to candidates to cultivate personal votes, which are distinct from those of parties, than others (Carey and Shugart, 1995; Grofman 2005).

The question regarding whether a campaign is party-centered or candidate-centered has been argued from the view point of voting behavior as well. Voting behavior is roughly divided into three categories based on the reasons defining the direction of the vote: candidate-orientation, party-orientation and policy-orientation (For instance, Campbell, Gurin & Miller, 1954). That is, if one voter casted his or her vote considering qualities of candidates rather than his or her party identification, that would be candidate-orientated voting behavior. Electoral systems have been said to affect whether voters vote for a party or for a candidate (For example, Sartori, 1997). Most studies have not focused on the causal relations between electoral systems and

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policy-orientation and neither does this paper.

Party-centeredness (or candidate-centeredness) of electoral campaigns is largely affected by electoral laws. Some studies classified electoral systems according to candidate-centeredness (Carey and Shugart, 1995; Grofman, 2005). According to Grofman's rough classification of electoral rules in terms of candidate-centeredness, Single Non-Transferable Vote (SNTV), Single Transferable Vote (STV) and Single Member District (SMD) plurality are the most candidate-centered (the least party-centered), open list Proportional Representation (PR) and mixed systems are in the middle, and closed list PR is the least candidate-centered (the most party-centered) (Grofman, 2005). It is widely accepted that SNTV provides candidates with a greater incentive to cultivate personal votes.

A lot of evidence of the impact of SNTV was drawn from Japanese cases. Japanese Lower House elections under SNTV before Japan's electoral reform in 1994 have been claimed to be very candidate-centered in both theoretical and empirical studies (Reed, 1994; Reed and Theise, 2001; Ramseyer and Rosenbluth, 1993; McCubbins and Rosenbluth, 1995 etc). Although the Japanese Upper House has used a mixture of SNTV and PR until now, almost all of these previous studies do not use the upper house election data but use the lower house election data to test the theory that

SNTV boosts personal votes (Rochon 1981; Reed, 1994).

Therefore, this paper aims at testing the theory that SNTV boost personal votes with Japan's upper house election data in 2004 by dprobit regression analysis. This research tries to see whether SNTV causes voters to be more candidate-orientated or party-orientated. It is found that SNTV encourages voters to cast a ballot based more on candidate rather than on party in my analysis. I also found that candidate-orientated voting behavior can be seen more in rural areas than in urban areas. This paper adds further evidence to the theory that SNTV makes people more candidate-orientated.

The structure of the article is as follows. In section 2, I present a literature review on candidate-centered politics in Japan. In section 3, I propose a conceptual model and hypotheses. In section 4, I explain the data used in my regression analysis and provide reasons why I used that data. In section 5, I show the results of the regression analysis. In section 6, I present my conclusion.

2. Literature Review

The Lower House of the Japanese Diet used SNTV before it reformed its electoral

system in 1994. Under SNTV, it was said that an individual candidate was the most

important element when people decided the direction for their votes in Japan (See, for

example, Rochon, 1981; Ramseyer and Rosenbluth, 1993; Miyake, 1989). Many studies

have blamed its unique electoral system, SNTV, as the main reason of the heavy stress

upon the candidates among voters (See, for example, Rochon, 1981; Ramseyer and

Rosenbluth, 1993; Scheiner 2006). Also, it is said that candidate-centered elections

brought a lot of trouble, such as the excessive intra-party competition or pork barrel

politics especially in Liberal Democratic Party (for example, Ramseyer and Rosenbluth,

1993; Reed 1994).

Previous studies suggest that there be mainly two reasons why SNTV fostered

personal votes. First, under SNTV, people had to cast their votes for an individual

candidate, not for a party list. They wrote candidates' name on their ballots. More

importantly, voters could not distinguish candidates just by party labels because the

same party often nominated multiple candidates in the same district. Magnitude size, the

number of candidate who can be elected in each district, was usually 3 to 6 under the

SNTV in Japan. Therefore, in order to acquire a significant number of seats, parties

were forced to nominate more than one candidate in the same district. This gave greater

incentive to candidates to cultivate personal votes. Consequently, constituents were

more likely to be candidate-orientated rather than party-orientated (See for example,

Swindle 2002; Maeda, 2009; Reed, 1994).

Although the impact of SNTV has been established by prior studies, as explained

above, traditionally, some scholars explain the candidate-orientation in Japan by

Japanese political culture. For example, Richardson (1974) suggests that the

personalistic value which people traditionally have in Japan be stronger than in other

western democracies. Therefore, Japanese voters place a stronger emphasis on

candidates.

Tom Rochon (1981) conducted the hypotheses test about the strong

candidate-orientation in Japan. First, he tested the hypothesis that SNTV boosted

personal votes. He thought if multiple candidates from the same party in one district

was the true cause, the reactions of people should be different according to the situation

of districts, such as the number of the nominees from the same party. That is, he

expected to see that voters in districts where there were two or more nominees from the

same party were more candidate-orientated than voters in districts where there was one

nominee for each party because the former could not distinguish candidates just by

party labels. (His first hypothesis) On the other hand, in districts where there was one nominee for each party, he expected to see voters were more party-orientated than voters in districts where there were two or more nominees from the same party. (His second hypothesis) In order to see the reaction of the people, he used the survey data of the Lower House election in 1967. In that survey, the single most important reason for each voter in reaching a voting decision was asked. The subjects had three choices; party, candidate, or policy. By aggregating their answers, he expected to see the differences of voting behavior between districts. His result was that more people in districts with two or more nominees emphasized candidates than people in districts with one nominee. On the other hand, more people in districts with a single nominee from the same party regard party as the most important than those in the districts with multiple nominees.

Second, he tested the hypothesis that Japanese traditional culture, such as personalism brought heavy emphasis on candidates among voters. He used the urbanicity of districts as one of proxies for the strength of traditional value. He expected that electorates in more rural areas would be more candidate-orientated than those in more urban areas because people in rural area seemed to have stronger traditional value. However, he could not see the expected relationship between the urbanicity and

candidate-orientation. As a result, he provided evidence supporting that SNTV indeed

caused people to emphasize candidates when casting their votes, however, the view that

Japanese voters are more personalistic does not explain why this happens well (ibid.).

Studies about SNTV have used the Lower House elections exclusively. I use the

Upper House election data and replicate the hypothesis test conducted by Rochon. I

would like to propose further evidence supporting that people become more

candidate-orientated by SNTV.

3. Conceptual Model and Hypotheses

Rochon (1981) used two independent variables, the electoral system and cultural

value, to explain candidate-orientated voting behavior in Japan. The term a

"multiple-candidate district" is used to refer to a district where there are two or more

candidates from the same party. Also, the term a "single-candidate district" means a

district where every party has just one candidate.

Figure1 Conceptual Model
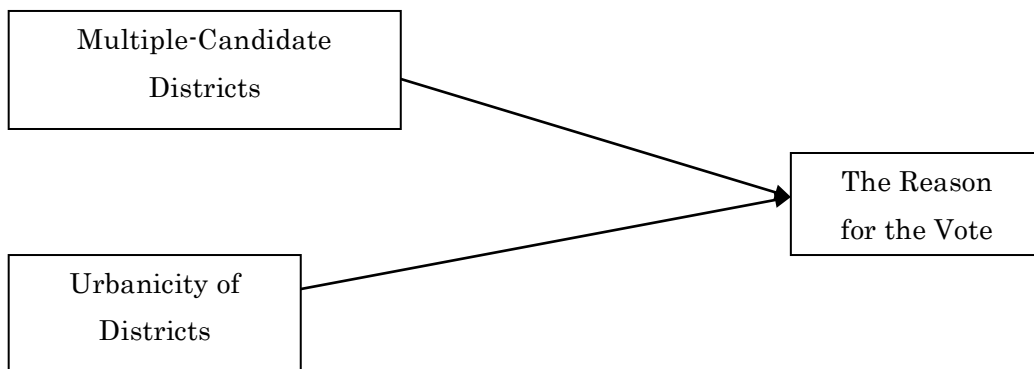
Source: Based on Rochon, 1981

Hypothesis

First hypothesis for this analysis is based on electoral system. Previous studies

(Rochon, 1981: Carey and Shugart, 1995) show if the multiple-candidate from the same

party is truly the reason why SNTV encourages candidate-orientation, we will see

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differences between multiple-candidate districts and single-candidate districts. In other words, electorates in multiple-candidate districts cannot choose a candidate just by the name of a party, so they will be more candidate-orientated than those in single-candidate districts. On the other hand, electorates in single-candidate districts can distinguish choices only by party labels, so they will be more party-orientated. My hypothesis is following;

In multiple-candidate districts, more voters will cast their ballots based on candidate than those in single-candidate districts. In single-candidate districts, more voters will cast their ballots based on party than those in multiple-candidate districts.

Alternative Hypothesis

Also, I would like to propose alternative hypotheses drawn from the Japanese political culture explanation. To operationalize the strength of Japanese cultural value, I follow the steps used in the prior study by Rochon and use the level of urbanization of districts as proxy for the strength of traditional cultural value. Traditional political culture is more likely to be seen in rural areas than in urban areas   (Rochon, 1981). If voters regard candidate as the most important element in casting a ballot, we will see voters in rural areas are more candidate-orientated. The Following is my alternative hypothesis;

In more rural districts, more voters will cast their ballots based on candidate

than those in more urban districts. In more urban districts, more voters will cast their ballots based on party than those in more rural districts.

In this paper, a probit regression analysis is conducted to test my hypothesis. Figure1 shows the model for the probit analysis. The dependent variable of the model is "The reason for the vote", whether the single most important reason for the vote is candidate or not. Two independent variables here are "The multiple-candidate district" and "Urbanicity" of districts. "Multiple-candidate districts" is whether voters' districts are multiple-candidate or not. "Urbanicity" of districts shows the level of urbanization of districts. This paper tries to see that the way in which the electoral system was designed affects how electorates decide which candidate to vote for. The unit of analysis is an individual voter.

4. Data Description

I use 2004 Upper House election data from The UTokyo-Asahi Survey (UTAS) conducted by Ikuo Kabashima and Masaki Taniguchi of the Graduate Schools for the Law and Politiics, the Univesity of Tokyo and the Asahi Shimbun. This data is the latest available data in the Upper House elections. The 2004 UTAS randomly picked up 3000 electorates and got 987 valid responses about various questions. It was conducted before and after the Upper House election on July 11th in 2004. In this survey, Q26[1] required people to pick the single most important reason for the vote from 9 choices (UTAS, 2006). I arranged 9 choices into three categories: "party", "policy", and "candidate".[2] Also, 695 answers out of 987 are analyzed here.[3] This data is used as the dependent variable, "The reason for the vote".

The data of the independent variable, "Multiple-candidate districts", comes from Asahi Shimbun HP. In the 2004 Upper House election, only Liberal Democratic Party (LDP) and Democratic Party of Japan (DPJ) nominated more than one candidate in the

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[1] Following is actual questions which are asked to people: Q25 What do you consider when you choose a candidate to vote for from your voting district? Please circle all which you usually consider when you decide a candidate to vote for. 1. Party 2. Policy 3. The personality of the candidate 4. The gender of the candidate 5. The age if the candidate 6. The appearance of the candidate 7. The personal connection with the candidate 8. The recommendation by others 9. The recommendation by the organization which you belong to; Q26 Of all which you circled above, which do you regard as the most important element? Please write the single most important element's number.

[2] The subjects who answered 8 and 9 were removed in this analysis. Answer 3,4,5,6, and 7 are combined as "candidate".

[3] 719 people out of 987 answered Question 26. Then, people who answered 8 or 9 were dropped, the number of people became 695.

same districts. There were eight multiple-candidate districts such as Hokkaido, Saitama,

Tokyo, Gunma, Kanagawa, Shizuoka, Aichi, Niigata, out of forty seven districts in

2004 ("The 2004 House of Councillors election", 2004).

Regarding the other independent variable, "Urbanicity", in order to measure the

level of urbanization of districts, I use DID (densely inhabited district) Index as a proxy

for the strength of traditional value. This measurement is defined by the government's

statistical bureau. Rochon (1981) confirmed that DID Index was negatively correlated

with the strength of traditional value by using survey data (Rochon, 1981). I followed

his procedure here. The range of DID Index is from 0 (the most rural areas) to 100 (the

most urban areas).

Though this paper analyzed the voting behavior of the 2004 Upper House election,

this research used DID Index by districts of the 2003 Lower House election (Sugawara,

2004). The reason why I used the data on the 2003 Lower House election is that it is

more accurate proxy for urbanicity than the 2004 Upper House election data because

districts of Lower House elections are smaller than those of Upper House elections. In

Lower House elections, Japan is divided into 300 SMDs, while in Upper House

elections Japan is divided into 47 multiple member districts (MMDs) based on 47

prefectures. MMDs used in Upper House elections are larger than SMDs used in Lower

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House elections. For example, Tokyo is one district in the Upper House election but it is

divided into 25 districts in Lower House elections. If people regard the whole Tokyo

prefecture as one area, it includes mountainous west area of Tokyo as well as the east

side of Tokyo where skyscrapers are standing. Thus, I used DID Index based on the

districts of the 2003 Lower House election.

5. Result

First, I aggregated data into the cross-tabulation table in order to see the

relationship between "The reason for the vote" and "Multiple-candidate district" (see

Table 1). As expected, in the multiple-candidate districts more people chose "candidate"

(26.42%) as the most important element in casting votes than in those in

single-candidate districts (24.42%). Also, in multiple-candidate district, fewer people

chose "party" (28.68%) than in single-candidate districts (33.02%). These results

suggest that multiple nominees from the same party in one district indeed make

electorates more candidate-orientated. It confirmed my first hypothesis that SNTV boost

candidate-orientated voting behavior among voters.

Table 1 The Reason for the Vote, Classified by the type of the districts

	Single-Candidate (a)	Multi-Candidate (b)	(a)-(b)
Party	33.02% (142)	28.68% (76)	+6.34%
Policy	42.56% (183)	44.91% (119)	
Candidate	24.42% (105)	26.42% (70)	-2.00%
	100% (430)	100% (265)	N=695

Source: Calculated by author by using UTAS, 2006

Table 2 is the cross-tabulation table showing the relationship between "The reason for the vote" and "Urbanicity" of districts. The categories, "Urban", "Middle", and "Rural" are according to DID Index.[4] As presumed, the percentage of people who answered "party" increases as districts become more rural. In urban districts, 34.32% regarded "party" as the most significant elements in voting, while in middle districts, the figure decreases to 30.32% and in rural districts, it is further down to 29.41%. On the other hand, in urban districts, only 22.88% of voters choose "candidate" as an answer, while the figure increases to 23.53% in middle districts and in the rural districts it is further up to 28.99%. Thus, these results show that people in rural districts are more candidate-orientated than those in urban areas and voters in urban districts are more party-orientated than those in rural districts. My alternative hypothesis that voters in rural districts are more candidate-orientated than those in urban districts was confirmed with these results.

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[4] There are 300 districts. The districts whose DID Index are from top 1 to 100 are put into the "Urban" category. Top 101 to 200 districts are regarded as "Middle" and top 201 to 300 are categorized as "Rural" (Sugawara, 2004)

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Table 2 The Reason for the Vote, Classified by DID Index of Districts

%	Urban	Middle	Rural	
Party	34.32% (81)	30.32% (67)	29.41% (70)	
Policy	42.80% (101)	46.15% (102)	41.60% (99)	
Candidate	22.88% (54)	23.53% (52)	28.99% (69)	
	100% (236)	100% (221)	100% (238)	N=695

Source: Calculated by author by using UTAS, 2006

As seen above, two independent variables (multiple-candidate district and urbanicity) seem to be associated to voting behavior. That is, both seem to have influence on whether people vote for a party or for a candidate. I will test this hypothesis using categorical analysis. Since this paper does not focus on policy-orientation, I drop data of 302 people who valued "policy" the most when they vote for the regression analysis. This analysis only contains the data on people who answered "candidate" or "party" as the single most important factor in casting a ballot.

Table 3 includes descriptive statistics of one dependent variable and two independent variables. Dependent variable "The reason for the vote" is coded 1 if the single most important element in casting vote is "candidate". It is coded 0 if the single

most important element in casting vote is "party". One of the dependent variables "Multiple-candidate ditrict" is coded 1 if a voter's district is a multiple-candidate district. If it is a single-candidate district, it takes 0. The other independent variable "DID Index" ranges from 0 to 100 and 100 means the most urban area.

Table 3 Descriptive Statistics

Variables	N	Mean	Std. Deviation	Min	Max
The Reason for the Vote	393	0.45	0.50	0	1
Multiple-Candidate District	393	0.37	0.48	0	1
DID Index	393	61.98	30.32	8	100

Source: Calculated by author using Stata 11 with data from UTAS, 2006

Figure 2 is the scatter plot for "The reason for the vote" and "multiple-candidate district". The vertical axis represents "candidate-orientation" and "party-orientation" and runs from zero, meaning party is valued as the most important factor, to one, meaning candidate is the most important factor. The horizontal scale runs from zero, meaning a voter's district is single-candidate, to one, meaning a voter's district is multiple-candidate. The fitted line shows slight positive relation between "The reason for the vote" and "Multi-candidate district". This means that the more voters in the

multiple-candidate districts regard candidate as the single most important element than

those in single-candidate districts.

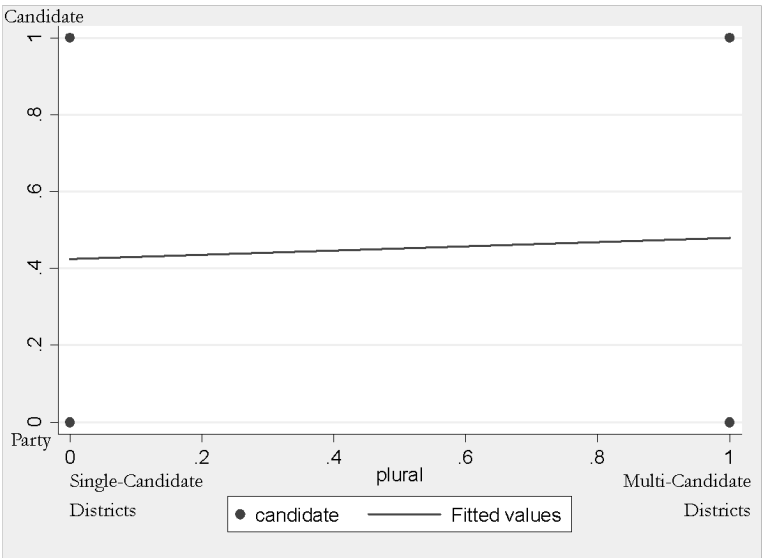Figure 2 "The reason for the Vote" plotted against "Multiple-Candidate Districts"

Figure 3 is the scatter plot of "The reason for the vote" and "DID Index". The

vertical axis represents "candidate-orientation" and "party-orientation" and runs from

zero, meaning party is valued as the most important factor, to one, meaning candidate is

the most important factor as in Figure 2. The horizontal axis runs from zero, meaning

the most rural voting district, to 100, meaning the most urban voting district. The

negative correlation between "The reason for the vote" and "DID Index" can be seen

here. This means that the more people vote for candidate rather than party, the lower

DID Index of their districts becomes.

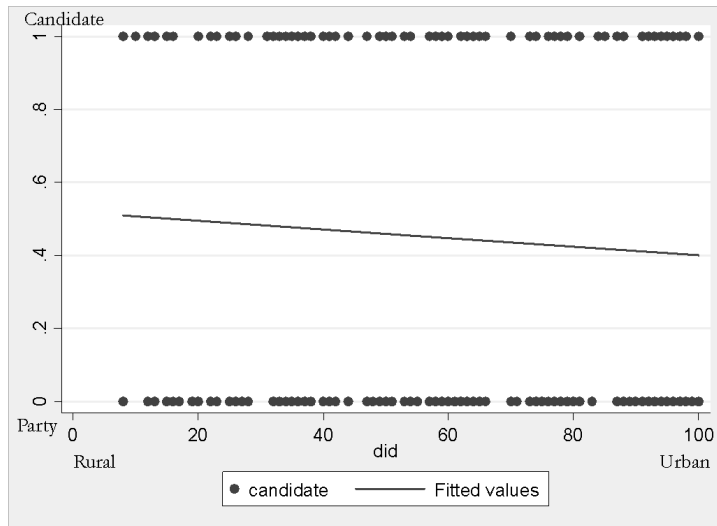Figure 3 "The reason for the vote" plotted against "DID Index"

Table 4 summarizes the results of the probit[5] analysis. First, my result suggests that there is a statistically significant positive correlation between "Multiple-Candidate Districts" and "The reason for the vote" (p<0.10). Voters in multiple-candidate districts are 9.6 percentage points more willing to vote for candidates compared to voters in a single-candidate district. Second, the negative association between "DID Index" and "The reason for the vote" is also statistically significant (p<0.10). Voters in less urban districts are 0.2 percentage points more willing to vote for the candidates than those in more urban districts. Overall, my hypotheses are confirmed with these results.

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[5] I used dprobit analysis by Stata. Dprobit reports the marginal effect rather than reporting the coefficients.

Table 4 Results of Dprobit Regression

Independent Variables	Expected Sign	dF/dx	P-value
Multi-Candidate Districts	+	0.096*	0.095
DID Index	-	-0.002*	0.053
Prob＞chi2	0.09		
N	393		

*p<.10 **p<.05 ***p< .01.

6. Discussions

In this paper, the hypothesis that SNTV encourages personal votes is tested. Also, as an alternative explanation, I tested the hypothesis that people with stronger traditional value are more candidate-orientated. Both hypotheses were confirmed by my statistical analysis and I get following two findings.

First, as expected, the characteristic of districts, such as whether districts are multiple-candidate or single-candidate, is associated with candidate-orientation among voters. SNTV is an electoral system which provides multiple-candidate districts. My analysis supports the theory that SNTV boosts personal votes.

Second, contrary to Rochon's conclusion that the level of urbanization could not explain candidate-orientation well, DID Index was negatively associated to candidate-orientation statistically. My result suggested that voters in less urban area are more candidate-orientated and less party-orientated. Since in this paper DID Index was used as a proxy for the strength of traditional value, it seems to mean that Japanese traditional personalism affects voting behavior. However, it is still unclear whether DID Index is an appropriate proxy for strength of traditional value or not. Therefore, it is reasonable to conclude that candidate-orientation is seen in rural area rather than in urban area instead of arguing that personalism in Japanese political culture causes

people to be more candidate-orientated.

For the further analysis regarding the question why this paper provides opposite result to Rochon's should be explored. This regression analysis suggests that "The reason for the vote" is correlated with "Urbanicity" of districts while Rochon's paper says the opposite (Rochon, 1981). One possible explanation is that the data used in two studies were limited; this paper used only 2004 election data and Rochon's study only used 1967's data. Therefore, the particular situation in each election is not controlled. Further analysis with multiple year data is necessary to have a more rigorous conclusion.

Finally, the change of voting behavior especially about the reason for the votes should be further examined. Voters who answered "candidate" were less than 30% in each table in this research. The percentage of people who answered "candidate" seemed much larger in the past (Miyake, 1989; Rochon, 1981). In this paper, the situation in the past is not mentioned as the only newer data is analyzed. The question regarding how electorates in Japan have changed seems very important research question though it is not the primary concern here. Further researches should be done.

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