Analyzing Voting Behaviors in Tokushima, Japan

YABE Takuya (University of Tokushima)\*
MATSUTANI Mitsuru (University of Tokushima)
TAKAKI Ryosuke (Japan Science Promotion Society)
MARUYAMA Masao (Hitotsubashi University)
MURASE Hiroshi (Hitotsubashi University)
KUBOTA Shigeru (Otsuma University)
HIGUCHI Naoto (University of Tokushima)

# Introduction: Revitalization of Local Politics after the Collapse of the 1955 Regime

From 1955 to 1993, Japan was ruled by the Liberal Democratic Party (LDP), which has been called the 1955 regime. Under this regime, local politics were also ruled by the LDP and grassroots conservatives. During the exceptional period between the late 60s and 70s, pollution-induced local protests resulted in reformist governors, who were backed up by the Social Democratic Party of Japan (SDP) and Japan Communist Party (CP).

However, a mix of political parties began supporting governors and mayors in the 1980s, which led to stagnation in local politics. At that time, most mayoral and

<sup>\*</sup>All direct correspondence to: YABE Takuya (Department of Social Science, University of Tokushima, 1 - 1 Minami Josanjima, Tokushima, 770-8502 Japan. E-mail: takuya@flamenco. plala. or. jp). This research was made possible by the Grant-in-Aid for Scientific Research, the Ministry of Education and Science, the Showa Shell Petroleum Foundation and the Kurita Foundation, whose support is gratefully acknowledged.

gubernatorial elections were fought between Communist candidates and candidates supported by all other parties, resulting in a decline in turnout. However, along with the collapse of the 1955 regime in 1993 came a variety of political changes. In the two greatest prefectures of Tokyo and Osaka, nonpartisan candidates beat strong partisans in gubernatorial elections, owing to an increasing number of nonpartisan voters and a decline of party organizations.

In addition, recent political changes have occurred in rural as well as urban areas. For example, a referendum movement in Maki town in Niigata prefecture succeeded in voting against the construction of a nuclear power plant, triggering local protests for environmental issues. Next, reform-minded governors were elected and supported in such peripheral prefectures as Iwate, Miyagi, Mie, Tottori, Saga, and Kochi. Even in such prefectures as Tochigi and Chiba, where the ruling LDP has a strong base, nonpartisan candidates were elected instead of conventional partisans. These situations may seem like a discrepancy at first glance, but they may actually foreshadow a new cleavage which embodies the rise of second modernity and the emergence of what the 1955 regime tried to prevent (Beck 1986; Beck, Bonss and Lau 2003).

Under these circumstances, the authors set up a four-year research project for the comparative study of voting behavior at gubernatorial elections. In the first year, 2004, we conducted a research survey about voting behavior in the 2003 Tokushima gubernatorial election. This paper presents the results of this questionnaire survey and a provisional analysis.

# 2. Background

# (1) Theoretical background

In Western Europe, the rise of new social movements and green parties triggered a variety of research into new politics. The point here is that old class politics cannot deal with new social conflicts involving the environment, human rights, gender, and so on, while the new politics has created a new cleavage structure around these issues. In retrospect, the former primary political cleavages were formed by the industrial revolution and national revolution (Lipset and Rokkan 1967).

If their argument is correct, the coming of post-industrial society will lead to the transformation of cleavage structures. Inglehart's (1977) influential hypothesis on value change revealed that the value cleavage between materialism and postmaterialism is the primary source of conflict, partially replacing the old cleavages based on class, industrial sectors, language, and religion (Inglehart 1977). Despite all criticisms, behind the rise of new social movements and new politics lie changing preferences in the electorate as suggested by Inglehart.

The value change from materialism to postmaterialism has added to the sociocultural, libertarian vs. authoritarian axis to form a new ideological dimension (Kitschelt 1995). Kitschelt (1995) explained the emergence of green and radical right parties in relation to the positions of existing parties in the ideological space. When authoritarian-libertarian issues are taken on the political agenda, the political cleavage along the horizontal axis (capitalist-socialist) begins to rotate toward leftlibertarian and right-authoritarian positions. However, established parties of social democrats and moderate conservatives are generally unresponsive to new issues, which produces ideological niches both for left-libertarians and right-authoritarians

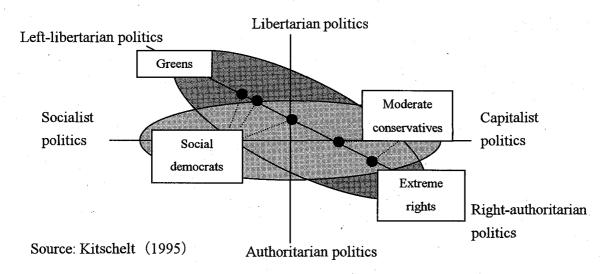


Figure 1 Realignment of cleavage structure and new politics

(see figure 1). Greens and radical right parties gain support from those outside the social democrats and moderate conservatives.

Though Kitschelt's hypothesis is persuasive, we can hypothesize that ideological axes are more plural and independent of each other. Here we emphasize the importance of the role of right libertarians, which Kitschelt ignored. The increasing number of right libertarians embodies a new political culture, according to Clark and Inglehart (1998), which results in ambivalent dispositions toward environmental issues. According to Clark and Inglehart (1998: 11-3), there are seven distinctive aspects of new political culture: (1) the transformation of the classic left-right dimension, (2) a distinction between social and fiscal/economic issues, (3) the salience of social issues relative to fiscal/economic issues, (4) the growth of market individualism and social individualism, (5) the questioning of the welfare state, (6) the rise of issue politics and broader citizen participation, and (7) the pervasiveness among younger, more educated and affluent individuals and societies.

In the context of post-1955-regime local politics in Japan, right libertarians have held the casting vote in elections and referendums. They vote for conservatives to sustain fiscal conservatism, but they also support environmental movements to realize their libertarian orientations. As a corollary, the ambivalent attitude of right authoritarians has produced two voter coalitions (see figure 2).

Socio-cultural
libertarian

Coalition 2

Economic/
right fiscal

Figure 2 Ideological mappings and coalitions in Toksuhima

The ruling LDP, as well as the centrist Democratic Party of Japan (DP) and other small parties, can no longer gain a majority vote without the support from independent libertarians. Coalition One can be formed when economic and fiscal stability becomes the focus of election campaigns. When environmental movements successfully raise the importance of environmental issues, right libertarians join Coalition Two.

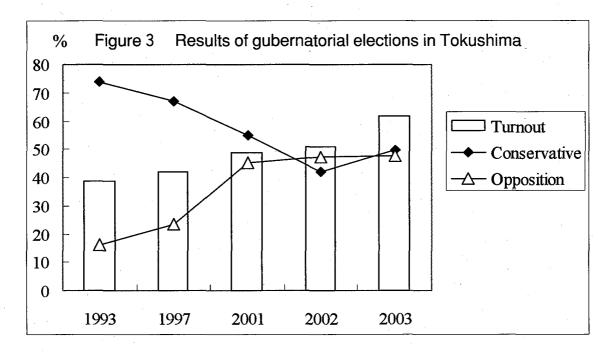
# (2) Political Change in Tokushima

Tokushima, with a population of 260, 000, is located in peripheral Shikoku Island. It was first developed as a feudal castle town in the sixteenth century. Though it was among Japan's ten biggest cities at the beginning of the Meiji era, its economy has stagnated, leading to it becoming a minor prefectural capital. As has always been the case in peripheral regions, the LDP has traditionally been dominant at all levels of elections in Tokushima.

Political turbulence in Tokushima began with a dam reconstruction plan on the Yoshino River. The Yoshino is the biggest river on Shikoku Island, with the 250-year-old Daiju dam located 14km up from its mouth to control its flow. When the Ministry of Construction presented a plan to replace the old stone dam with a new mobile dam, anti-dam-construction groups were launched. The main reasons for this opposition were suspicions about the flood-control capacity of the new dam, water pollution, waste of tax money, and so forth.

Tokushima, as mentioned earlier, had been governed by conservatives. The main source of political conflict there had been competition between different factions of the ruling LDP. In the 1990s, voter turnout declined, since intra-LDP conflict ended with the death of the former Prime Minister, Takeo Miki. Though the declining electoral participation seemed irreversible, figure 3 shows that voter turnout increased by more than 20 percent from 1993 to 2003. Moreover, Tadashi Ota, a former prefectural assembly member of the SDP, defeated the conservative candidate in 2002, the first such defeat in the past 50 years.

徳島大学社会科学研究第20号



The influence of environmental groups, which led anti-conservative electoral campaigns from 1999 to 2004, lies behind the resurgence of political interest and the weakening power of the LDP. First, these groups organized a mass petition campaign for a referendum on the dam's construction in 1998, collecting 101, 535 signatures, or nearly half of Tokushima city's electorate. Though it frightened the ruling conservatives and caused conservative harassment of environmental groups, the referendum's regulation passed the city assembly. Subsequently, a majority voted against the dam in a referendum in January 2000.

In addition to the humiliating result of the referendum, conservatives lost the Tokushima mayoral election and had a tough time in the 2001 gubernatorial election. In 2002, Tadashi Ota, the candidate backed by environmental groups, won the gubernatorial election following the resignation of the conservative governor as the result of a bribery scandal.

However, in 2003 Ota was ousted in a no-confidence vote at the prefectural assembly and lost the governorship to Kamon Iizumi, a former bureaucrat of the Ministry of Home Affairs, who was backed by the LDP. This cannot be seen as the simple resurgence of conservatives, however. Instead, we hypothesize that this series of elections changed the patterns of voter alliance and voting behavior, as shown on fig-

ure 2. In the following sections, we will examine the social consciousness and voting behavior of the gubernatorial elections.

## (3) Data and Method

We conducted a research survey in September 2004 for voters between the ages of 20 and 69. We selected 2, 128 people from the voters' list of Tokushima city (1%), using random systematic sampling. We sent them questionnaires to be returned by mail, followed by two reminders. The response rate was 38.5% (819 valid respondents). Thirty-four questionnaires were not delivered because the intended recipients had moved.

# 3. Political Trust and Preferences

First we examined the respondents' political alienation. The political efficacy scale indicates how much influence in politics the voters believe they have. The political trust scale indicates if and how voters rely on politics. In our research, we questioned for political efficacy and trust at both the national and local political levels in Japan (see table 1). We found that, in general, the percentage of voters who responded positively to political efficacy and trust was low, both "strongly agree" and "somewhat agree" together being only 20-30% of the responses at most.

Table 1 Political Efficacy and Political Trust

	(1)Influence in Central Politics	(2)Influence in Local Politics	(3)Trust in Central Politics	(4)Trust in Local Politics
Strongly Agree	2.9%	3.7%	1.5%	1.5%
Somewhat Agree	12.3%	17.0%	22.5%	29.8%
Somewhat Disagree	31.9%	33.3%	40.2%	40.7%
Strongly Disagree	52.9%	46.0%	35.8%	28.0%
total	100.0%	100.0%	100.0%	100.0%

Second, we examined the voters' preferences for 10 politicians, parties, and organizations, using the feeling thermometer method (see figure 4). Measured with metric values, its maximum is 100 and its minimum is 0. The center is 50 and represents a neutral position; results over 50 indicate positive attitudes and results less than 50 indicate negative attitudes. While most studies on political support focus on partisanship and voting behavior, the feeling thermometer indicates "support by preference" (Kabashima 1998).

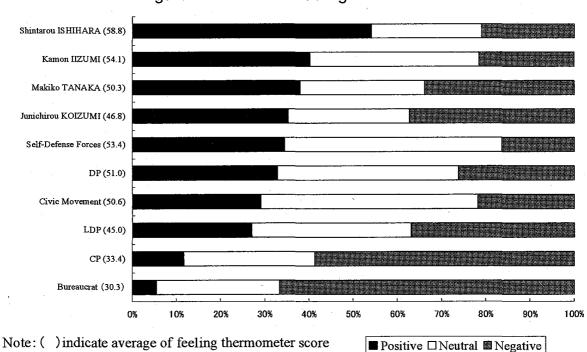


Figure 4 Results of feeling thermometer

In figure 4, a score of 0-40 points classifies responses as "negative", 50 points as "neutral", and 60-100 points as "positive". The most preferred identity was Shintaro Ishihara, Governor of Tokyo, with more than half of the respondents liking him. In contrast, many answered negatively for the Communist Party (CP) and "bureaucrats". Responses for Prime Minister Junichiro Koizumi were positive and negative at the same rate. The Civic Movement and the Self-Defense Force (SDF) received mostly neutral responses, with more than half providing marks of 50. Responses for the LDP, the DP, and Kamon Iizumi, governor of Tokushima, similarly tended to be neutral.

In table 2, we provide the results of a factor analysis for the ten political figures and institutions included in the survey. We could extract three factors from this analysis. The first displayed a high factor loading for the LDP, Koizumi, Iizumi, the SDF, and bureaucrats, which we identified as 'the conservative factor'. The second factor had a high factor loading for the DP, the CP and the Civic Movement, and we therefore identified it as 'the progressive factor'. The third showed a high factor loading for Makiko Tanaka (former Minister of Foreign Affairs) and Ishihara. It is difficult to classify this factor, but we have named it 'the populist factor', because Tanaka and Ishihara are commonly regarded as populists. Though we expected Koizumi to also be classified as populist, his loading to the populist factor was negligible.

Table 2 Factor analysis of feeling thermometer

	conservative factor	progressive factor	populism factor
LDP	0.83	-0.20	0.01
Juniciro Koizumi	0.78	-0.16	0.03
Bureaucrat	0.71	0.25	-0.22
Kamon Iizumi	0.70	-0.10	0.17
SDF	0.61	-0.01	0.21
Civic Movement	0.04	0.77	-0.01
СР	-0.16	0.70	0.00
DP	-0.06	0.61	0.39
Makiko Tanaka	-0.07	0.30	0.75
Shintaro Ishihara	0.39	-0.16	0.72
eigen value	2.86	1.69	1.35
contribution rate (%)	28.59	16.93	13.55
cumulative contribution rate (%)	28.59	45.52	59.07

principle component analysis (varimax rotation)

In table 3, we show the correlations between the above-mentioned variables and the sociological elements of gender, age, education, occupation, and party affiliation.

Table 3 Socioeconomic variables, political trust and feeling thermometer

Gender         Female n (0.04) (7.01) (7			Conservative	Progressive	Populism	Political Efficacy	Political Trust
Render		Male	-0.05	0.00	-0.01	1.79	1.93
Note	Gondon	Female	0.04	-0.01	0.01	1.17	1.95
Age   20-29	Genuei	n	778	778	778	799	801
Age         30-29         -0.06         0.08         0.11         1.35         1.79           Age         40-49         -0.04         -0.08         0.01         1.33         1.92           50-59         -0.01         -0.03         -0.05         1.30         1.93           60-         0.13         0.05         -0.02         1.80         2.24           n         774         774         774         795         797           significant level         n.s.         n.s.         n.s.         n.s.         n.s.         n.s.         n.s.         **         **         **           Education         Lower secondary         -0.06         -0.21         -0.03         1.34         2.02         \$         \$         ** <td></td> <td>significant level</td> <td>n.s.</td> <td>n.s.</td> <td>n.s.</td> <td>**</td> <td>n.s.</td>		significant level	n.s.	n.s.	n.s.	**	n.s.
Age         40-49         -0.04         -0.08         0.01         1.33         1.92           Age         50-59         -0.01         -0.03         -0.05         1.30         1.93           60-         0.13         0.05         -0.02         1.80         2.24           n         774         774         774         795         797           significant level         n.s.         n.s.         n.s.         **         **           eta square         0.01         0.00         0.00         0.02         0.02           Secondary         -0.06         -0.21         -0.03         1.34         2.02           Secondary         -0.07         0.05         0.07         1.24         1.98           Junior College         -0.09         -0.06         0.06         1.32         1.75           Education         University         -0.06         0.09         -0.17         1.90         1.92           Education         n         768         768         768         768         768         768         768         768         768         768         768         768         768         768         768         768         768		20 - 29	-0.14	0.02	0.02	1.13	1.45
Age         50-59         -0.01         -0.03         -0.05         1.30         1.93           60-         0.13         0.05         -0.02         1.80         2.24           n         774         774         774         795         797           significant level         n.s.         n.s.         n.s.         ***         ***           eta square         0.01         0.00         0.00         0.02         0.02           Secondary         -0.06         -0.21         -0.03         1.34         2.02           Secondary         0.07         0.05         0.07         1.24         1.98           Junior College         -0.09         -0.06         0.06         1.32         1.75           Education         University         -0.06         0.09         -0.17         1.90         1.92           n         768         768         768         768         790         792           significant level         n.s.         n.s.         n.s.         **         n.s.           eta square         0.00         0.01         0.01         1.03         0.00           Occupation         Manual         -0.14         0.15		30-29	-0.06	0.08	0.11	1.35	1.79
Age		40-49	-0.04	-0.08	0.01	1.33	1.92
Note	A ~~	50-59	-0.01	-0.03	-0.05	1.30	1.93
Significant level eta square   0.01   0.00   0.00   0.02   0.07   0.05   0.07   1.24   1.98   0.07   0.05   0.07   1.24   1.98   0.07   0.06   0.06   1.32   1.75   0.07   0.06   0.06   1.32   1.75   0.02   0.01   0.03   0.00   0.02   0.01   0.01   0.03   0.00   0.01   0.01   0.03   0.00   0.01   0.01   0.03   0.00   0.01   0.01   0.03   0.00   0.01   0.01   0.03   0.00   0.01   0.01   0.03   0.00   0.01   0.01   0.03   0.00   0.01   0.01   0.03   0.00   0.01   0.01   0.03   0.00   0.01   0.01   0.03   0.00   0.01   0.01   0.03   0.00   0.01   0.03   0.00   0.01   0.03   0.00   0.01   0.03   0.00   0.01   0.03   0.00   0.01   0.03   0.00   0.01   0.03   0.00   0.01   0.03   0.00   0.01   0.03   0.00   0.01   0.03   0.00   0.01   0.03   0.00   0.00	Age	60-	0.13	0.05	-0.02	1.80	2.24
Education   Educ		n	774	774	774	795	797
Lower secondary		significant level	n.s.	n.s.	n.s.	**	**
Secondary   0.07   0.05   0.07   1.24   1.98	-	eta square	0.01	$0.00^{\circ}$	0.00	0.02	0.02
Dunior College		Lower secondary	-0.06	-0.21	-0.03	1.34	2.02
Education         University         -0.06         0.09         -0.17         1.90         1.92           n         768         768         768         769         792           significant level         n.s.         n.s.         n.s.         **         n.s.           eta square         0.00         0.01         0.01         0.03         0.00           Self-employed         0.03         -0.12         0.01         1.66         1.87           Professionals         0.07         0.15         -0.16         1.73         1.97           Managers         0.02         -0.37         0.12         1.91         2.11           Clerical and sales         -0.14         0.15         -0.02         1.25         1.63           Housewives and part-timers         0.05         -0.03         0.09         1.26         1.83           Housewives and part-timers         0.05         -0.03         0.03         1.13         2.11           Unemployed         -0.08         0.14         -0.11         1.55         1.88           n         744         744         744         746         766         768           significant level         n.s.         *<		Secondary	0.07	0.05	0.07	1.24	1.98
None		Junior College	-0.09	-0.06	0.06	1.32	1.75
Significant level   n.s.   n.s.   n.s.   n.s.   n.s.   eta square   0.00   0.01   0.01   0.03   0.00	Education	University	-0.06	0.09	-0.17	1.90	1.92
eta square		n	768	768	768	790	792
Occupation         Self-employed Professionals         0.03 -0.12 0.01 1.66 1.87 1.97 1.97 1.91 1.91 1.91 1.91 1.91 1.9		significant level	n.s.	n.s.	n.s.	**	n.s.
Occupation         Professionals Managers         0.07 0.15 -0.16 1.73 1.97           Occupation         Managers 0.02 -0.37 0.12 1.91 2.11           Clerical and sales -0.14 0.15 -0.02 1.25 1.63           Manual -0.10 0.03 0.09 1.26 1.83           Housewives and part-timers 0.05 -0.03 0.03 1.13 2.11           Unemployed -0.08 0.14 -0.11 1.55 1.88           n° 744 744 744 744 766 768           significant level n.s. * n.s. * n.s. ** n.s. eta square 0.01 0.02 0.01 0.03 0.01           LDP 0.80 -0.44 -0.03 1.48 2.57           DP -0.48 0.56 0.38 1.58 1.59           Others -0.23 0.07 -0.47 1.84 2.19           Party Affiliation n 780 780 780 780 795 796		eta square	0.00	0.01	0.01	0.03	0.00
Managers         0.02         -0.37         0.12         1.91         2.11           Clerical and sales         -0.14         0.15         -0.02         1.25         1.63           Manual         -0.10         0.03         0.09         1.26         1.83           Housewives and part-timers         0.05         -0.03         0.03         1.13         2.11           Unemployed         -0.08         0.14         -0.11         1.55         1.88           n         744         744         744         766         768           significant level         n.s.         * n.s.         ** n.s.         ** n.s.           eta square         0.01         0.02         0.01         0.03         0.01           LDP         0.80         -0.44         -0.03         1.48         2.57           DP         -0.48         0.56         0.38         1.58         1.59           Party         Nonpartisan         -0.21         -0.05         -0.11         1.22         1.65           Affiliation         n         780         780         780         795         796		Self-employed	0.03	-0.12	0.01	1.66	1.87
Occupation         Clerical and sales         -0.14         0.15         -0.02         1.25         1.63           Manual         -0.10         0.03         0.09         1.26         1.83           Housewives and part-timers         0.05         -0.03         0.03         1.13         2.11           Unemployed         -0.08         0.14         -0.11         1.55         1.88           n°         744         744         744         766         768           significant level         n.s.         *         n.s.         **         n.s.           eta square         0.01         0.02         0.01         0.03         0.01           LDP         0.80         -0.44         -0.03         1.48         2.57           DP         -0.48         0.56         0.38         1.58         1.59           Party         Nonpartisan         -0.21         -0.05         -0.11         1.22         1.65           Affiliation         n         780         780         780         795         796		Professionals	0.07	0.15	-0.16	1.73	1.97
Occupation         Manual Housewives and part-timers         -0.10 0.05 0.05         0.03 0.03 0.03         1.26 1.83 2.11 1.55           Unemployed         -0.08 0.14         0.14 0.11         -0.11 1.55         1.88 1.88 1.88 1.88 1.88 1.88 1.88 1.88		Managers	0.02	-0.37	0.12	1.91	2.11
Occupation         Housewives and part-timers         0.05         -0.03         0.03         1.13         2.11           Unemployed         -0.08         0.14         -0.11         1.55         1.88           n°         744         744         744         766         768           significant level         n.s.         * n.s.         ** n.s.         ** n.s.           eta square         0.01         0.02         0.01         0.03         0.01           LDP         0.80         -0.44         -0.03         1.48         2.57           DP         -0.48         0.56         0.38         1.58         1.59           Party         Nonpartisan         -0.23         0.07         -0.47         1.84         2.19           Nonpartisan         -0.21         -0.05         -0.11         1.22         1.65           780         780         780         795         796		Clerical and sales	-0.14	0.15	-0.02	1.25	1.63
Housewives and part-timers 0.05 -0.03 0.03 1.13 2.11 Unemployed -0.08 0.14 -0.11 1.55 1.88  n 744 744 744 766 768 significant level n.s. * n.s. ** n.s. eta square 0.01 0.02 0.01 0.03 0.01  LDP 0.80 -0.44 -0.03 1.48 2.57 DP -0.48 0.56 0.38 1.58 1.59 Others -0.23 0.07 -0.47 1.84 2.19 Nonpartisan -0.21 -0.05 -0.11 1.22 1.65  n 780 780 780 795 796	0	Manual	-0.10	0.03	0.09	1.26	1.83
n         744         744         744         766         768           significant level         n.s.         * n.s.         ** n.s.	Occupation	Housewives and part-timers	0.05	-0.03	0.03	1.13	2.11
significant level eta square         n.s.         * n.s.         ** n.s.           LDP         0.01         0.02         0.01         0.03         0.01           LDP         0.80         -0.44         -0.03         1.48         2.57           DP         -0.48         0.56         0.38         1.58         1.59           Others         -0.23         0.07         -0.47         1.84         2.19           Party Affiliation         Nonpartisan         -0.21         -0.05         -0.11         1.22         1.65           n         780         780         780         795         796		Unemployed	-0.08	0.14	-0.11	1.55	1.88
eta square         0.01         0.02         0.01         0.03         0.01           LDP         0.80         -0.44         -0.03         1.48         2.57           DP         -0.48         0.56         0.38         1.58         1.59           Others         -0.23         0.07         -0.47         1.84         2.19           Affiliation         Nonpartisan         -0.21         -0.05         -0.11         1.22         1.65           n         780         780         780         795         796	,	n`	744	744	744	766	768
LDP         0.80         -0.44         -0.03         1.48         2.57           DP         -0.48         0.56         0.38         1.58         1.59           Others         -0.23         0.07         -0.47         1.84         2.19           Affiliation         Nonpartisan         -0.21         -0.05         -0.11         1.22         1.65           n         780         780         780         795         796		significant level	n.s.	*	n.s.	**	n.s.
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		eta square	0.01	0.02	0.01	$0.03^{\circ}$	0.01
Party Affiliation         Others         -0.23         0.07         -0.47         1.84         2.19           Nonpartisan         -0.21         -0.05         -0.11         1.22         1.65           n         780         780         780         795         796		LDP	0.80	-0.44	-0.03	1.48	2.57
Party Affiliation         Others         -0.23         0.07         -0.47         1.84         2.19           Nonpartisan         -0.21         -0.05         -0.11         1.22         1.65           n         780         780         780         795         796		DP	-0.48	0.56	0.38	1.58	1.59
Affiliation Nonpartisan -0.21 -0.05 -0.11 1.22 1.65 n 780 780 780 795 796	D .	Others	-0.23	0.07	-0.47	1.84	2.19
n 780 780 780 795 796	•	Nonpartisan	-0.21	-0.05	-0.11	1.22	1.65
significant level ** ** ** **	AHIIIaulon	n	780	780	780	795	796
DIGITITIONIC TO YOU		significant level	**	**	**	**	**
eta square 0.25 0.13 0.06 0.02 0.08		eta square	0.25	0.13	0.06	0.02	0.08

p < .05, \*\*p < .01, n.s.p > .05

Socioeconomic backgrounds by and large had no significant relationship to the three factors identified through the feeling thermometer. There were, however, significant associations between occupations and the progressive factor scores. Managers tended to mark low scores for the progressive factor, although the four other occupational groups included answered positively.

In terms of political efficacy, males, older voters, college graduates, managers, and professionals showed significantly higher political efficacy scores regardless of party affiliation. In relation to political trust, however, age and party affiliation are much more important. The older the respondents, the greater their trust in political figures and organizations was likely to be. Likewise, the LDP's and small parties' (classified as "other parties") supporters had higher political trust for the groups they supported.

## 4. Materialist vs. Post-Materialist Politics

Inglehart's thesis of value change has been repeatedly tested in Japan. The results have shown that the number of postmaterialists has been increasing, but this has not been due to the cohort effect, as Inglehart hypothesized (Watanuki 2001). Other studies have also revealed that his thesis should be modified in the Japanese context (Takeshige 1986; Otake 2003).

We also measured the proportions of materialists, mixed, and postmaterialists in our research sample. Table 4 shows that Inglehart's generational transition model does not hold in this case, as age had no significant relationship to the proportion of materialist and postmaterialist responses. However, the result also suggested that education is a factor in the increasing number of postmaterialists. In addition, party affiliation was not significantly correlated to postmaterialist values, although LDP supporters marked the lowest proportion of postmaterialist responses.

Finally we analyzed the relationship between our value cleavage results and the feeling thermometer. Table 5 shows that materialists preferred the LDP, Koizumi,

Table 4 Distribution of materialist and postmaterialist

		Materialist	Mixed	Postmaterialist	Total	Significant Level
C 1	Male	15.0%	45.9%	39.1%	307	*
Gender	Female	9.8%	55.4%	34.8%	397	
	20-29	14.3%	38.8%	46.9%	49	n.s.
	30-29	12.4%	52.6%	35.1%	97	
Age	40-49	10.8%	47.6%	41.6%	166	
	50-59	11.4%	51.4%	37.3%	185	
	60-	12.8%	56.7%	30.5%	203	
	Lower secondary	12.2%	53.3%	34.4%	90	**
T-1 (*	Secondary	12.5%	57.6%	29.8%	295	
Education	Junior College	9.9%	52.5%	37.6%	141	
	University	12.3%	39.8%	48.0%	171	
	LDP	16.3%	54.7%	28.9%	190	n.s.
Party	DP	8.8%	52.6%	38.6%	171	
Affiliation	Others	7.7%	46.2%	46.2%	65	
	Nonpartisan	12.0%	49.1%	38.9%	275	
Total		12.0%	51.4%	36.6%	710	

<sup>\*</sup>p < .05, \*\*p < .01, n.s.p > .05

Ishihara, Iizumi, and the SDF. Postmaterialists, on the other hand, showed a preference for the CP and civic movements. The SDF and civic movements showed the most significant correlations with value cleavage, according to the eta square scores. To summarize: (1) highly educated people tended to be post-materialists, (2) no correlation could be found between age and value change, and (3) postmaterialists preferred liberal and leftist political forces.

Table 5 Relation between value cleavage and average score of feeling thermometer

and the second s				_	
	Materialist	Mixed	Postmaterialist	Significant Level	Eta Square
LDP	52,0	46.2	41.1	**	0.024
DP	47.5	51.8	51.2	n.s.	0.005
CP	28, 5	31.3	37.4	**	0.020
Junichiro Koizumi	52.0	47.6	44.0	*	0.012
Shintaro Ishihara	63.1	60.5	53.7	**	0.023
Makiko Tanaka	49.5	51.5	47.3	n.s.	0.006
Kamon Iizumi	57.9	55.4	50.8	**	0.014
Civic movement	45, 2	49.4	55.1	**	0.033
SDF	61.9	54.0	48.8	**	0.047
Bureaucrat	32, 1	29.8	29.9	n.s.	0.001

<sup>\*</sup>p < .05, \*\*p < .01, n.s.p > .05

# 5. Measuring Traditional, Modern and Second Modern Values

In this section we will continue to examine social consciousness along a continuum ranging from authoritarianism to the cultural liberalism of second modernity. Table 6 shows the output of a factor analysis of the 14 questions referring to social consciousness, with five factors extracted. These are authoritarianism, cultural liberalism, security, populism, and left-right. Theodor Adorno's measurement of authoritarianism has been tested and shown to have analytical utility in the Japanese context by showing the division between traditional and modern attitudes. The left-right axis has also been used in political science. We can regard it as the primary cleavage in the modern age.

It is our intention to develop three indicators that can be used for analyzing the consciousness of second modernity. The idea of cultural liberalism comes not from traditional liberalism but from Giddens's notion of life politics (Giddens 1991: 197-8). He regarded it as a reflexive projection of self in the context of second modernity. Concretely, it refers to a consciousness that approves various ways of self-

Table 6 Output of factor analysis

	Authori- tarianism	Cultural liberalism	Security consciousness	Polulism	Left-right ideology
We always have to respect authority.	0.70	-0.03	0.09	0.02	0.04
Following precedent give the most favorable result.	0.70	-0.13	-0.04	0.15	0.08
People who goes against tradition and convention cause problems	0.64	-0.1	-0.11	0.27	0.09
The best way of making decisions in this complicated society is relying on leaders and professionals	0.72	-0.01	0.16	0.02	-0.03
When I am asked whether I am conservative or liberal, my position is liberal	-0.02	0.09	0.25	-0.25	-0.74
It doesn't matter if my life become inconvenienced a little for the sake crime prevention.	0.01	0.03	0.84	0.02	-0.02
Surveillance cameras should to be increased to maintain the public order, even if our privacy is restricted in some degree.	0.09	-0.04	0.78	0.22	0.03
People may divorce as soon as they are dissatisfy with their partner.	0.10	0,53	0.03	0.34	-0.19
Homosexuals should be permitted	-0.22	0.76	-0.04	0.02	0.01
Couples should be allowe to maintain their original surname	-0.06	0.67	-0.05	-0.15	-0.22
National flag and national anthem should be taught in schools	0.19	-0.15°	0.35	-0.07	0.62
Permanent resident foreigners should have voting rights.	-0.06	0.58	0.13	-0.43	0.33
The stagnation of current politics is caused by the inaction of the younger generation.	0.07	-0.09	0.11	0.72	0.15
For a successful Japan, its people should unite and support their society.	0.33	0.06	0.18	0.64	0.04
Loading eigenvalue	2.13	1.71	1.60	1.46	1.16
square contribution rate (%)	15.25	12.24	11.41	10.44	8.29
after the cumulative contribu- rotation tion rate (%)	15.25	27.49	38.90	49.34	57.63

Principle component analysis (varimax rotation)

# actualization.<sup>2</sup>

Security consciousness corresponds with attitudes giving surveillance priority over privacy. Because the notion of populism is not directly linked to any particular consciousness, in order to measure the consciousness of populist tendencies we measured the simplicity of attitudes instead.

In terms of relationships with socioeconomic backgrounds, table 7 deserves two comments. (1) Unlike the results involving postmaterialism, all consciousness indicators are significantly related to age. The younger the respondents were, the more anti-authoritarian and culturally liberal they became. Especially, cultural liberalism was greatly influenced by the respondents' ages, which suggests that Inglehart's thesis of generational change can be better applied to cultural liberalism than to postmaterialism in general. (2) Security consciousness is only related to cohort groups. Since other socioeconomic factors and party affiliation have no significant effect on it, we can tentatively conclude that security consciousness is not related to ascription.

We also prepared another set of attitudinal variables (table 8). The first concerns economic liberalism (attitudes toward income distribution, the welfare state, and competition). The second is about leadership, indicating the choice between preferences for technocracy and for grassroots democracy. The third concerns attitudes toward nuclear power plants, reflecting environmental consciousness.

What is especially interesting is the correlation between educational background and household income with economic liberalism. Those with lower educational backgrounds and household income are more egalitarian and likely to oppose competition. Though it has been said that class politics has not been salient in Japan, there is potential for class conflict in the area of economic liberalism. With regard to party affiliation, the range of scores was still significant, but the eta-square score became lower. We can say that economic liberalism may influence party preferences, but its effect is rather weakened.

In contrast to economic liberalism, preferences for leadership and attitudes toward nuclear power plants did not significantly correlate with socioeconomic vari-

Table 7 Socioeconomic variables and social consciousness

		Authori- tarianism	Cultural liberalism	Security Consciousness	Populism	Left-right ideology
	Male	0.003	-0.070	0.052	-0.081	-0.084
Gender	Female	-0.008	0.050	-0.030	0.053	0.070
	significant level	ns	ns	ns	ns	*
	20-29	-0.041	0.708	-0.402	0.066	0.112
	30-29	-0.051	0.501	-0.014	0.160	-0.053
	40-49	-0.212	0.227	0.077	-0.085	0.156
Age	50 - 59	0.046	-0.169	-0.088	-0.203	0.064
	60 —	0.166	-0.562	0.188	0.138	-0.184
	significant level	**	**	**	**	**
	eta square	0.019	0.188	0.028	0.022	0.017
	Lower secondary	0.390	-0.236	-0.119	0.144	-0.119
	Secondary	0.051	-0.138	0.087	0.055	0.069
17.4	Junior College	-0.141	0.214	-0.051	0.020	0.056
Education	University	-0.184	0.210	-0.042	-0.223	-0.099
	significant level	**	**	ns	**	ns
	eta square	0.032	0.035	0.006	0.016	0.007
	LDP	0.183	-0.262	0.021	0.216	0.321
	DP	-0.052	-0.072	0.042	-0.042	-0.173
Party	Others	-0.096	-0.077	0.024	-0.069	-0.255
Affiliation	Nonpartisan	-0.074	0.244	-0.043	-0.101	-0.066
	significant level	*	**	ns	**	**
	eta square	0.013	0.044	0.001	0.017	0.042
	Self-employed	-0.105	-0.107	0.043	-0.141	0.022
	Professionals and managers	-0.158	0.079	0.010	-0.108	0.012
	Clerical and sales	-0.065	0.289	0.002	0.029	0.078
0	Manual	0.164	-0.005	-0.007	0.125	-0.055
Occupation	Housewives and part-timers	-0.033	-0.080	0.025	-0.001	0.137
	Unemployed	0.252	0.033	-0.142	0.074	-0.274
	significant level	*	*	ns	ns	ns
	Male         0.003         -0.070         0.052           Female         -0.008         0.050         -0.030           significant level         ns         ns         ns           20-29         -0.041         0.708         -0.402           30-29         -0.051         0.501         -0.014           40-49         -0.212         0.227         0.077           50-59         0.046         -0.169         -0.088           60-         0.166         -0.562         0.188           significant level         **         **         **           eta square         0.019         0.188         0.028           Lower secondary         0.390         -0.236         -0.119           Secondary         0.051         -0.138         0.087           Junior College         -0.141         0.214         -0.051           University         -0.184         0.210         -0.042           significant level         **         **         ns           eta square         0.032         0.035         0.006           LDP         0.183         -0.262         0.021           DP         -0.052         -0.072         0.042<	0.008	0.015			

p < .05, \*\*p < .01, n.s.p > .05

Table 8 Economic ideologies and attitudes toward other issues

		Income distribution	Welfare state	Competition	Technocracy vs. grassroots democracy	Nuclear power plants
	Male	2.57	2.70	2.02	2.51	2.69
Gender	Female	2.41	2.71	2.22	2.54	2.77
	significant level	**	n.s.	**	n.s.	n.s.
	20-29	2.46	2.66	2.14	2.45	2.56
	20 - 29	2.58	2.60	2.03	2.46	2.76
	40-49	2.57	2.68	2.08	2.55	2.76
Age	50-59	2.37	2,72	2.17	2.52	2.77
_	60-	2.44	2.79	2.20	2.59	2.72
	significant level	n.s.	n.s.	n.s.	n.s.	n.s.
	eta square	0.011	0.005	0.006	0.003	0.004
	Lower secondary	2.26	2.73	2.29	2.45	2.72
	Secondary	2.41	2.76	2.18	2.52	2.74
T7.1	Junior College	2.47	2.68	2.20	2.50	2.71
Education	University	2.71	2.65	1.90	2.58	2.76
	significant level	**	n.s.	**	n.s.	n.s.
	eta square	0.034	0.003	0.029	0.002	0.001
	LDP	2.60	2.95	2.01	2.89	2.52
	DP	2.50	2.62	2.23	2.33	2.87
Party	Others	2.17	2.62	2.24	2.45	2.63
Affiliation	Nonpartisan	2.44	2.61	2.12	2.41	2.81
	significant level	**	**	*	**	**
	eta square	0.021	0.031	0.012	0.062	0.025
	2 million yen or below	2.21	2.66	2.40	2.44	2.79
	2-5 million yen	2.37	2.72	2.25	2.46	2.69
	5-7 million yen	2.41	2.65	2.04	2.54	2.75
Household Income	7-10million yen	2.66	2.70	2.07	2.60	2.71
income	more than 10 million yen	2.77	2.77	1.85	2.63	2.78
	significant level	**	n.s.	**	n.s.	n.s.
	eta square	0.053	0.002	0.046	0.007	0.002
	Self-employed	2.55	2.89	2.14	2.58	2.72
	Professionals and managers	2.59	2.63	1.91	2.59	2.67
	Clerical and sales	2.54	2.61	2.15	2.61	2.73
0	Manual	2.51	2.78	2.17	2.38	2.73
Occupation	Housewives and part-timers	2.39	2.69	2.17	2.50	2.75
	Unemployed	2.31	2.62	2.20	2.37	2.70
ei	significant level	*	n.s.	*	n.s.	n.s.
ř	eta square	0.015	0.015	0.015	0.009	0.001

p < .05, \*\*p < .01, n.s.p > .05

ables. However, there was a strong correlation between party and leader preferences. LDP supporters were saliently oriented to technocracy and supportive of nuclear power plants.

# 6. Party Affiliation and Voting Behavior at the 2003 Gubernatorial Election

# (1) Partisanship

Table 9 shows the relationship between party affiliation and socioeconomic background. Nonpartisans were 39.4% of the respondents.<sup>3</sup> LDP supporters represented 26.9% of those surveyed, while DP supporters made up 24%. In the reality of Japan's two-party system, these parties are the main competitors. In terms of other parties, the Komeito, the CP, the SDP and other parties' supporters represent a very small portion of registered voters, as the total vote received by all these groups was less than 10%.

In regard to gender, although the LDP was supported by a larger percentage of female respondents than male, this difference was rather small. A clear difference can be seen in regard to DP support, with a more than 10% difference in the number of male DP supporters over female supporters. Although the percentage of voters who supported smaller parties was about the same for both sexes, there were more females who claimed no party affiliations, with almost 43% of all female respondents claiming to be nonpartisan.

Party affiliation varied greatly throughout the age groups. Respondents in their twenties supported the DP by more than 11.3% over the LDP, but the balance changed in proportion to age, with LDP support being greater than DP support for all respondents over the age of 30. The differences in respect to other parties were not significant throughout the age groups. As has been often said about voters, aging can facilitate particular party affiliations.

In terms of socioeconomic background, the more educated respondents were,

the more likely they were to be nonpartisan. This, however, was a pseudo-correlation with age, and there was a low correlation between education and party affiliation. Instead, occupation still mattered greatly in regard to party affiliation. The largest group of LDP supporters was the managerial class (40.7%), the self-employed coming next at 33.8%. On the contrary, clerical and sales workers marked the least support for the LDP with 18%. Nonpartisans were salient among clerical and sales workers, housewives, and professionals.

Table 9 Party Affiliation by Attributions

			e,	Party Affi	liation		
		LDP	DP	Others	Nonpartisan	Total	
Candan	Male	24.3%	31.3%	9.6%	34.8%	342	**
Gender	Female	28.5%	18.7%	9.8%	42.9%	459	
	20-29	7.0%	18.3%	9.9%	64.8%	71	**
	30-29	21.3%	15.6%	7.4%	55.7%	122	
Age	40-49	27.8%	23.3%	6.7%	42.2%	180	
	50-59	27.9%	26.4%	10.4%	35.3%	201	
	60-	34.1%	29.6%	13.0%	23.3%	223	
	Lower secondary	26.7%	25.7%	17.8%	29.7%	101	*
TO 1	Secondary	27.7%	26.8%	9.3%	36.1%	332	
Education	Junior College	27.4%	20.8%	6.5%	45.2%	168	
	University	24.6%	23.0%	6.8%	45.5%	191	
	Self-employed	33.8%	20.5%	8.6%	37.1%	151	*
	Professionals	31.6%	21.1%	5.3%	42.1%	77	
	Managers	40.7%	25.9%	1.9%	31.5%	54	
Occupation	Clerical and sales	18.0%	27.0%	9.0%	45.9%	. 111	
	Manual	20.0%	30.0%	13.3%	36.7%	90	
	Housewives and part-timers	25.8%	19.6%	11.3%	43.3%	195	
	Unemployed	21.5%	30.1%	14.0%	34.4%	93	,
	2 million yen or below	18.1%	25.5%	24.5%	31.9%	94	**
	2-5 million yen	28.0%	21.2%	7.6%	43.2%	264	
Household Income	5-7 million yen	27.6%	22.4%	8.6%	41.4%	152	
nicome	7-10million yen	25.4%	29.2%	7.7%	37.7%	130	
	more than 10 million yen	31.7%	25.4%	2.4%	40.5%	126	

p < .05, \*\*p < .01, n.s.p > .05

It is interesting to note that support for the LDP varied so greatly between the top and bottom tiers of household income. Only 18% of those with annual incomes of less than two million yen supported the LDP, while 30% of those with annual incomes of more than ten million yen preferred the LDP. However, this division can partly be explained by the correlation between household income and age. This result should be no surprise, since the young tend to have lower incomes and LDP supporters are mostly older people.

# (2) Voting Behavior at the 2003 Gubernatorial Election

The gubernatorial election in 2003 followed Ota's resignation after the noconfidence vote at the prefectural assembly. When Ota again stood for the governorship, the LDP supported Iizumi, a director of the prefecture's Environment Department. The LDP framed the conflict as a problem of governability, in which Iizumi, presented as a young, high-ranked bureaucrat, gained supremacy in comparison with Ota. Since Iizumi declared himself to be against the dam construction, the primary issues of the electoral campaign were governing ability and the legitimacy of noconfidence.

The result of our logistic regression analysis is shown on table 10. The overall fit of model 1 is better than that of the previous two elections and the referendum (Yabe et al. 2006). The increased turnout at this election can be largely explained by heightened interest, which strengthened the old cleavage structures through block voting. Still, it should be noted that occupation was insignificant, while older generations tended to vote for Ota. Indeed, the old cleavage structure was activated, but it no longer reflected the cleavage between different occupation groups.

Also impressive is the finding that value cleavage had little effect on voting behavior. Though environmentalism was significant, the fit of the model hardly increased, with the Nagelkerke R square rising from 370 to 382.

Among the issue variables, anti-clientalism remained insignificant. On the other hand, a technocratic orientation had a strong effect on voting behavior. This

suggests that the LDP succeeded in its campaign over governability and leadership, which legitimized the no-confidence vote against Ota. This also meant that environmental groups lost the initiative in setting the agenda for the election.

Table10 Voting Behavior at 2003 election
Dependent Variable: 0 = Vote for lizumi / 1 = Vote for Ota

	Ol	d Clevage	(n=58)	1)	Val	ue Clevage	e (n=55	(n=558) Issue Coaltion $(n=553)$				
	В	Wald	Sig.	Exp (B)	В	Wald	Sig.	Exp (B)	В	Wald	Sig.	Exp (B)
Age (Reference Category : 20-29)		11.7	*			11.9	*			11.72	*	
30-39	1.500	8.42	**	4.48	1.514	8.23	**	4.54	1.536	7.93	**	4.65
40-49	0.848	2.91	,	2.34	0.768	2.33		2.16	0.833	2.54		2.30
50-59	1.347	7.62	*	3.85	1.306	6.93	**	3.69	1.411	7.49	**	4.10
60-	1.184	5.82	**	3.27	1.183	5.51	*	3.26	1.309	6.22	**	3.70
Occupation (Reference Category : Primary sector)	<u> </u>	10.18				8.33				6.82		
Manual	-0.120	0.05		0.89	-0.377	0.48		0.69	-0.400	0.46		0.67
Sales and service	-0.811	2.51		0.44	-0.994	3.48	*	0.37	-1.012	3.10	*	0.36
Clerical	-0.375	0.50		0.69	-0.682	1.54		0.51	-0.553	0.87		0.58
Managers	-1.007	2.75		0.37	-1.186	3.60	*	0.31	-1.169	3.07	*	0.31
Professionals	-0.066	0.02		0.94	-0.415	0.57		0.66	-0.494	0.68		0.61
Unemployed	-0.095	0.04		0.91	-0.357	0.50		0.70	-0.396	0.53		0.67
Party Affiliation (Reference Category: LDP)		111.57	**			100.81	**			81	**	
DP	3.428	111.29	**	30.81	3.388	100.79	**	29.60	3.195	80.92	**	24.40
Others	2.369	42.52	**	10.68	2.261	34.62	**	9.59	2.127	27.66	**	8.39
Nonpartisan	2.277	56.11	**	9.75	2.285	51.57	**	9.82	2.050	37.38	**	7.77
Authoritarianism					0.015	0.01		1.02	0.044	0.10		1.04
Environmentalism					0.359	5.88	*	1.43	0.296	3.58	*	1.34
Anti-Clientalism							· · · · · · · · · · · · · · · · · · ·	·	0.175	0.42		1.19
Technocracy vs. grassroots democracy	٠								-0.555	44.26	**	0.57
Constant	-3.125	21.07	**	0.04	-2.894	17.28	**	0.06	-2.862	14.99	**	0.06
- 2 Log Likehood	609.349				578. 185				525.878			
Cox & Snell R Square	0.276				0.285			**	0.343		4	
Nagelkerke R Square	0.370				0.382				0.460			

<sup>\*</sup>p < .05, \*\*p < .01

### 7. Conclusion

We have described social consciousness and voting behavior at the 2003 Tokushima gubernatorial election. The significance of the election's results, the defeat of Ota and the success of Iizumi, can be summarized as follows. (1) Conservative supporters no longer constitute the majority of voters in Tokushima, which will necessitate coalitions for winning future elections. The increasing number of non-partisans will have the casting vote and they are more likely to respond to issues at each election. (2) Environmental consciousness may have some effect on the support for nonconservative candidates, although that is not always the crucial factor in voting behavior. (3) As shown in the voting behavior of the 2003 election, the conflict between technocracy and grassroots democracy will be important in some future elections.

#### **Notes**

- 1 For populism in Japan, see Otake (2003).
- What is important in this context is that cultural liberalism was analytically separated from authoritarianism. Though anti-authoritarian attitudes are a necessary component of anti-totalitarianism, they are not always generous to so-called deviant elements, such as homosexuality and divorce. Therefore, it is necessary to separate cultural liberalism for analyzing new politics and new social movements, which often defend the rights of so-called deviant minorities.
- 3 The proportion of nonpartisans rapidly increased after the collapse of the 1955 regime.

#### References

Beck, U., 1986, Risikogesellschaft: Auf dem Weg in eine andere Moderne, Frankfurt: Suhrkamp Verlag.

———, W. Bonss and C. Lau, 2003, "The Theory of Reflexive Modernization: Prob-

- lematic, Hypotheses and Research Programme," *Theory, Culture and Society*, 20(2): 1 33.
- Clark, T. N. and R. Inglehart, 1998, "The New Political Culture: Changing Dynamics of Support for the Welfare State and other Policies in Postindustrial Societies," T. N. Clark and V. Hoffman-Martinot eds., *The New Political Culture*, Boulder: Westview Press.
- Flanagan, S. C., 1979, "Value Change and Partisan Change in Japan," *Comparative Politics*, 11(3): 253-78.
- ———, 1982, "Changing Values in Advanced Industrial Societies," *Comparative Political Studies*, 14(4): 403-44.
- Giddens, A., 1992, The Transformation of Intimacy, Cambridge: Polity Press.
- Inglehart, R., 1977, The Silent Revolution: Changing Values and Political Styles among Western Publics, Princeton, NJ: Princeton University Press.
- , 1982, "Changing Values in Japan and West," *Comparative Political Studies*, 14 (4): 445-79.
- ————, 1990, Culture Shift in Advanced Industrial Society, Princeton, NJ: Princeton University Press.
- Kabashima, I., 1998, Seiken Kotai to Yukensha no Taido Henyo, Tokyo: Bokutakusha.
- Kitschelt, H., 1995, *The Radical Right in Western Europe : A Comparative Analysis*, Ann Arbor : University of Michigan Press.
- Lipset, S. M. and S. Rokkan, 1967, "Cleavage Structures, Party Systems, and Voter Alignments: An Introduction," S. M. Lipset and S. Rokkan eds., *Party Systems and Voter Alignments: A Cross-National Perspective*, New York: Free Press.
- Otake H., 2003, Nihon gata Populism, Tokyo: Chuo Koron.
- Takeshige, M., 1986, "Datsu Busshitsu Shugi teki Kachi to Seiji Hendo," T. Nishikawa ed., Hikaku Seiji no Bunseki Wakugumi, Kyoto: Minerva Shobo.
- Yabe, T., N. Higuchi, T. Takaki and H. Murase, 2006, "Environmental Movements and the Rise of New Coalition Politics in Japan: The Dynamics of Voting Behavior in Tokushima, 1999-2004," paper presented at the 20th World Congress of International Political Science Association.