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Party switching and policy disagreement: scaling analysis of experts' judgment

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Abstract

Under what conditions do policy disagreements cause parties to split? Before the general elections in 2017 in Japan, the *Minshin*, the largest opposition party, split, and the major opposition camp collapsed into three parties. Disagreement about defense policy was rapidly politicized by the founding leader of a new party, Hope. Some members were motivated to switch to Hope and split the *Minshin*. Why did the disagreement about defense policy, which had long existed but was inactive, become an issue that led to a major split? To answer these questions, we used Aldrich–Mckelvey and Blackbox transpose scalings to analyze the data from an expert survey about issue positions and the salience of party policies. The variance in experts' responses was also examined to consider whether parties consistently and clearly distinguish their policy positions. Party positions on defense policy were clearly distinguished and revealed a split among splinter parties. However, the party positions clearly converged on the environment, decentralization, and other policies in a two-dimensional space, which indicated the unity of the major opposition camp. Moreover, different item functioning (DIF) analysis revealed a high variance (i.e., negative weight) on the issue salience of defense policy, which indicated its politicization immediately before the split. Overall results indicated that the politicization of defense policy contributed to weakening party cohesion and the party was split over disagreement about it. This implies that party switching is caused by policy disagreement but also hinges critically on which policy is politicized as an issue for party unity.

Key words: Expert survey; party switching; scaling method

1. Introduction

In parliamentary democracies, parties are critical units of competition (Aldrich, 2008, 2011) and are conventionally considered to reinforce party cohesion (Cox, 1987; Bowler *et al.*, 1999; Carey, 2007). Party switching is rare but important to challenge party unity. Party switches, if done collectively on a large scale, result in party splits and party mergers, and thus potentially change the structure of party competition and party systems (Laver and Benoit, 2003; Heller and Mershon, 2009).

The frequency and intensity of party switching varies across countries and over time. Continuous and large-scale party switching in a country-based parliament is rare among advanced democracies,[1] but Japan is an exception. Extensive legislative switching was triggered in 1993 by defection from the incumbent Liberal Democratic Party (LDP) during the politicization of electoral reform (Cox and

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[1]Although party switching in a country-based parliament is rare except in Japan and Italy (Giannetti and Laver, 2001; Heller and Mershon, 2005), recent studies reveal that party switching is widely observed in the European Parliament (Hix and Noury, 2018; Martin, 2021).

Rosenbluth, 1995; Kato 1998; Reed and Scheiner, 2003). Intraparty policy disagreements also motivated switchers, and policy-seeking was found to be an important motivation that contributed to party switching (Kato and Yamamoto, 2009; Hamzawi, 2021). Party switching brought about a change in the dynamics of party systems in Japan (Laver and Kato, 2001; Desposato and Scheiner, 2008).

In Japan, the switching in 2017 split the largest opposition party. It led to the fragmentation of the major opposition camp, which had been formed and reorganized in the mid-1990s to contest the predominant LDP. Immediately before the general elections, the *Minshin*, then the largest opposition party, was split by its members' switching to a newly formed party, Hope, because of disagreement over defense policy. The disagreement had been latent within in the *Minshin* but had not become an explicit issue for intraparty dispute. However, it was activated by the formation of a new party; a founding leader of the new party, Hope, cited it as a reason to refuse an electoral alliance, especially a full merger with the *Minshin*.

The above observation of a political process raises both empirical and theoretical questions. Did the defense policy motivate switching and split the party because it was more important than (dis)agreements about other policies? Were there other important (dis)agreements, which could have influenced the party cohesion (or split)? To address the question of the motivation for policy-switching, what policy differences caused switching or party splitting? To answer these questions, we examined the policy (dis)agreements that were the basis of the fragmentation of the major opposition parties. We used an expert survey that was conducted immediately after the 2017 general elections. For a closer examination, we applied the different item functioning (DIF) analysis of Aldrich–McKelvey scaling to the responses of experts about the importance of a policy and the position of each party. We further analyzed the multi-dimensionality of the position data by using Blackbox transpose scaling. Unlike the previous approach, the present analysis does not regard the variance in the experts' responses as a measurement of the errors resulting from limitations in their perceptions and scaling capacities. Rather, it assumes that the variance indicates that parties fail to distinguish and reveal clearly their places in scales of issue positions and issue salience.

As expected, a clear cleavage was found among the splinter parties in the major opposition camp regarding the defense policy that was an issue for party switching and splitting. The positions of the splinter parties also clearly converged on the environment, decentralization, and other policies in a two-dimensional space. This indicated the unity rather than fragmentation of the major opposition camp. Moreover, DIF analysis found high variance, i.e., high negative weight in the experts' responses to the issue salience of the defense policy. This points to the saliency of defense policy as an issue that had plausibly resulted from the rapid politicization of the defense policy before the party split. Taken together, the results indicated that politicization contributed to the party split as did disagreement over defense policy that had previously been latent inside the party. Alternatively, other issues and agreements may have been latent as factors to prevent the party split.

The recent Japanese case thus allowed us to draw two related implications for policy-seeking switching. Policy-seeking switching occurs when parties observe a clear disagreement over policies. However, decisions to switch or not to switch were also different according to which policy was an issue for party affiliation. Party cohesion, therefore, depends on which policy is (and is not) made an issue for switching in political process.

2. Policy-seeking motivation and party switching

Parties compete for offices, votes, and policies. Offices, votes, and policies are reasons for the formation, breakup, merger (Heller and Mershon, 2009, chapters 1 and 9), and also the coalition of parties (Laver, 1998).[2] Policy-seeking is an important motivation for legislative party switching (Mershon, 2014), but is rarely observed on a large scale. Parties often have policy disagreements among members. But if a disagreement is found over a policy, it does not necessarily lead to a party split and often

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[2]Office-seeking and policy-seeking are motivations for models of party coalitions. If one abandons the assumption that a party is a unitary actor, however, the same theorization is extended to party switching.

remains latent behind overall agreements on other policies. In a multi-dimensional policy space, a cleavage that represents members' (dis)agreements differs from one policy dimension to another.[3] In such a multidimensional policy space, parties are not necessarily divided by a cleavage in common across different policies – typically, the one of the left–right ideological orientation. The first hypothesis is thus about the multi-dimensionality of policy space, i.e., policy 'dimensions' that represent similarities and differences in policy positions (Laver, 2014).

Hypothesis 1: Policy positions are represented in a multi-dimensional issue space.

In a multi-dimensional space, although a policy disagreement has the potential to split parties, it is unlikely to motivate switching when it is outweighed by agreement on other policies. Here, the analysis has to distinguish the *issue position* from the *issue salience* of a policy (Rohrschneider and Whitefield, 2009). The issue position represents the similarities and differences in the policy position. The issue position informs the level of disagreement and agreement on the policy and represents the cleavage and convergence of policy dimensions, respectively. The issue salience of a policy represents the importance of a policy as an issue for parties. We reasonably expect that both the issue position and the issue salience of policies influence party coherence. Clear disagreement (agreement) on policies results in cleavage (convergence) among policy positions and makes a party split more (less) likely. In this regard, policy disagreement and agreement cancel each other out in their effect on party splits.

Hypothesis 2: Parties are more (less) likely to split because of clearer disagreement (agreement) on policies.

This effect of the issue position on a party split interacts with the issue salience. If policies are more important for parties, the same level of (dis)agreements about them has a higher issue salience than otherwise. When the policy disagreement is salient and dominates agreement about other policies, parties are more likely to divide along the cleavage. Empirical literature reports that the issue salience of policies is often changed by strategic intervention (Bélanger and Meguid, 2008; Wagner and Meyer, 2014; Costello *et al.*, 2021).[4] Parties and politicians often shift the emphasis about issues to gain advantage in political competition and/or to concentrate on the same issues for political commitment.

Hypothesis 3: Parties are more (less) likely to be split by a policy disagreement (agreement) when political intervention increases the issue salience of the policy.

The analysis of party switching, as discussed above, requires investigating the party's positions in all policies to discover revealed and latent (dis)agreements. It also requires the examination of the politicization process in which an intraparty disagreement has developed into party switching. Before explaining the expert survey that provided the data about the issue salience and issue position of party policies, the next section will introduce the process before the 2017 general elections, when the split of the largest opposition party fragmented the opposition camp.

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[3]This implication draws from a mathematical formulation of decision equilibrium and agenda control in multidimensional spatial models (McKelvey, 1976; McKelvey and Wendell, 1976). In a more than two-dimensional space, the decision equilibrium is not defined, which implies the possibility of agenda control. A large number of empirical scaling analyses on party positions find two-dimensional spaces. For example, see the review by Laver (2014).

[4]The previous literature on switching also reports the influence of other factors, such as political ambitions, strategies of both parties and legislators, and heightened uncertainty, which are contingent upon legislative processes and party competition (Heller and Mershon, 2005; Desposato, 2006).

3. Case and data

3.1 Party switching before the 2017 general elections

Party switching in Japan began with the breakup of the LDP that had held onto one-party government for 38 years from 1955 to 1993.[5] When the electoral system of the House of Representatives became politicized in 1993, the LDP broke up, new parties were formed, and the party system underwent a transformation. In 1994, the non-LDP coalition government changed the electoral system from a single non-transferable vote to a mixed system of single-member districts and proportional representation but allowed the LDP's return to power.

To compete with the largest LDP under the new electoral system, the non-LDP parties continued to attempt a merger into a unified party. In 1994, they merged into the New Frontier Party (NFP), but the NFP was broken up in 1997 and then replaced by the Democratic Party of Japan (DPJ).

The DPJ increased its size after its formation and won the general elections in 2009. The DPJ, however, failed to overhaul the policies that it inherited from the LDP, i.e., 'it painfully moved along the learning curve from opposition politics to the realities of governance' (Sneider, 2011). In foreign and defense policies, for example, the DPJ government initially advanced a new idea for an East Asian community but shifted back to the US-centered security relationship that it had inherited from the LDP (also see Green, 2011; Hughes, 2012). After the DPJ was defeated in the general election at the end of 2012 by the LDP-centered coalition, the DPJ was succeeded by the Minshin. Third parties grew and eventually merged into the Minshin, but support for the party did not turn around.

3.2 Disbandment of the major opposition before the 2017 general election

Immediately before the 2017 general election, the Minshin searched for a way to strengthen the opposition camp. The Tokyo governor, Yuriko Koike, formed a new party, the Hope Party (Hope). The Hope was formed suddenly but rapidly increased its presence because Koike retained influence over national politics as a retired MP of the LDP. She enjoyed great popularity and media exposure resulting from her sweeping victory in the 2016 gubernatorial election. Hoping to fight in the general elections as a unified non-LDP coalition with the Hope, the Minshin executives approached and even suggested that Koike merge the Minshin and the Hope. Koike decided to accept only those Minshin MPs who had agreed to strengthen the national defense based on a security relationship with the USA. This politicized the defense policy as an issue for party realignment and resulted in the breakup of the Minshin immediately before the 2017 general elections. Although 52 MPs of the Minshin joined the Hope, 15 remaining members formed the Constitutional Democratic Party (CDP); 20 members, most of whom were leaders and executives, remained in the Minshin and ran in the 2017 general elections as independents. Party switching triggered by the formation of Hope thus fragmented the opposition camp into three parties and weakened its position against the LDP.[6]

Because of the timing, electoral consideration inevitably affected legislators' decisions on switching. Controlling for the electoral factor, however, policy disagreement still played a role in switching[7] (Asano and Patterson, 2022). Before the formation of the Hope, diverse opinions about the national security issue were found inside the Minshin, but those views failed to develop into a major intraparty dispute.[8]

Although some leaders supported a shift away from the defense policy based on the security relationship with the USA, as shown by the DPJ government's proposal of a new Asianism, other

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[5]From 1983 to 1986, there was a period when the LDP formed a coalition government with the New Liberty Club (NLC), but the majority of the NLC members were LDP defectors, and the LDP also maintained its one-party dominance.

[6]Koike believed that a 'conservative' orientation in defense and security policies was essential to counter the long-term rule of the Shinzo Abe cabinet (2012–2020), which emphasized the right of collective self-defense and deepened the security relationship with the USA. However, the resulting fragmentation weakened the opposition and advantaged the LDP.

[7]Whether to join the Hope depended on the MPs' positions on defense policy. Whether to form the CDP and remain in the Minshin was influenced by their electoral consideration.

[8]In April 2017, Akihisa Nagashima, who had taken the most 'conservative' position on national security, left the Minshin. He later joined the LDP.

members took a more conservative stance that was closer to the incumbent LDP's. The switching was motivated by the disagreements that the opposition camp had originally had, and thus was policy-seeking.

At the same time, however, the process indicates that switching had not originated directly from increasing disputes within the party but from a political process outside the party. Switching may not have been triggered without Koike's initiative to focus on the national security policy among other policies and to use it as an issue for party formation and merger. Building on this insight, we used the data from an expert survey conducted in 2017 and closely examined party positions on policy dimensions that underlined the fragmentation of the opposition camp. We focused specifically on three splinter parties from Minshin: CDP, Hope, and the remnants of Minshin and found a cleavage that fragmented the opposition camp. This allowed us to identify the existence of policy diversity in the opposition camp and the importance of issue salience that had motivated party switching.

3.3 Expert survey in 2017

The 2017 expert survey was conducted online.[9] Of the 489 specialists in Japanese politics who received an electronic mail request to complete the screen survey, 145 experts accessed the screen survey, and 117 of them completed it. The format of this survey questionnaire was originally developed by Laver and Hunt (1992) and extended by Benoit and Laver (2006). The survey covered 10 policy dimensions: increasing spending vs reducing taxes (financial policy), deregulation, deficit bonds, social, environment, decentralization, immigration, US affairs (foreign policy), defense, and national identity.[10] The survey asked the experts to locate (a) each party's position on substantive policy dimensions, and (b) the importance for each party of the policy dimension. Each policy dimension was anchored at each end by two short phrases that set out substantive policy positions (see Table 1). The respondents were asked to answer on a scale of 1–20 for each party. The list of parties consisted of the following eight parties that had seats in the upper and/or lower houses as of the 2017 general election: LDP, CDP, the Hope, Komeito (KOMEI), Japan Communist Party (JCP), Japanese Innovation Party (JIP), Social Democratic Party (SDP), and the DPJ successor, Democratic Party (Minshin). Note that the LDP and its junior partner, KOMEI, formed a coalition government at the time of the survey. Finally, we asked the respondents to estimate on a scale of 1–20 their feelings about each party.

3.4 Data (1): positions

Before the scaling analyses, we summarized the survey results, i.e., the averages of the scaling results among the experts (Table 2). Each column shows a party name, and each row represents a policy area. Higher (lower) values represent positions closer to the right (left) end.

3.5 Data (2): importance

Table 3 indicates the importance of each party policy issue. High (lower) values represent policies that are ranked as more (less) important.

3.6 Response aggregation and variance among experts

The expert survey data have been used to aggregate responses from a large enough number of experts, typically taking the means. This method involves a problem, because experts often disagree on scaling positions and the importance of policies for parties. The simple statistics of response aggregation, such as means, have high variances in the experts' responses. In addition to the anchoring vignettes method (Bakker *et al.*, 2014a, 2014b), to cope with this problem, a recent study proposed an alternative way of

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[9]It was conducted between 10 and 28 December 2017, approximately one and one-half months after the general elections.

[10]In the Japanese survey, one more financial policy dimension (deficit bond) was added to a common set of policies across countries (Kato and Laver 2003; Kato and Kannon 2008).

Table 1. Ten substantive policy issues and their end points in the 2017 general election

Policy – issues	'Left' end point (score = 1)	'Right' end point (score = 20)
Spending vs taxes	Promote raising taxes to increase public services	Promote cutting public services to cut taxes
Deregulation	Favor high levels of state regulation and control of the market	Favor deregulation of markets at every opportunity
Deficit bonds	Support the issue of deficit bonds rather than increasing taxes	Support increasing taxes rather than the issue of deficit bonds
Social policy	Favor liberal policies on matters such as abortion, homosexuality, and euthanasia	Oppose liberal policies on matters such as abortion, homosexuality, and euthanasia
Environment	Support protection of the environment, even at the cost of economic growth	Support economic growth, even at the cost of damage to the environment
Decentralization	Promote decentralization of all administration and decision-making	Oppose any decentralization of administration and decision-making
Immigration	Favor policies designed to help immigrants integrate into Japanese society	Favor policies designed to help immigrants return to their country of origin
US affairs	Oppose an expanded US military and political role in world affairs	Support an expanded US military and political role in world affairs
Defense policy	Promote reduced spending on defense	Promote increased spending on defense
National identity	Do not encourage increased respect for the emperor	Encourage increased respect for the emperor
Sympathetic close to respondent	Same as respondent	Farthest from respondent

aggregation. It used the median or modal response, instead of the mean, based on the assessment of the ability of experts (Lindstadt *et al.*, 2018). These methods are devised for 'correction,' assuming that experts are biased and not equally knowledgeable or well-informed. However, one can also consider that the high variance in the experts' responses derived from 'targets,' i.e., parties, rather than the

Table 2. Party positions on policy scales in Japan, 2017 (I) positions

Policy	LDP	CDP	Minshin	KOMEI	JCP	JIP	SDP	Hope	Mean
Spending vs taxes	8.27	7.96	9.13	8.30	8.68	14.04	8.91	11.78	9.63
	3.87	*3.10*	*3.09*	*3.18*	*4.50*	*4.85*	*4.24*	*4.13*	*3.87*
Deregulation	12.08	7.58	9.21	9.05	3.72	15.65	4.53	13.45	9.41
	3.61	*2.62*	*2.88*	*2.86*	*3.28*	*3.89*	*3.05*	*3.09*	*3.16*
Deficit bonds	8.52	9.37	9.26	8.41	7.28	9.75	7.25	9.34	8.65
	4.50	*3.53*	*3.41*	*4.05*	*4.48*	*4.57*	*4.44*	*3.91*	*4.11*
Social policy	15.78	5.72	7.81	10.88	7.15	13.18	6.05	10.54	9.64
	3.45	*2.83*	*2.93*	*3.75*	*3.94*	*4.53*	*3.69*	*4.15*	*3.66*
Environment	14.96	7.31	9.06	9.90	5.14	14.20	5.16	11.65	9.67
	3.17	*2.76*	*3.05*	*3.05*	*2.97*	*3.58*	*2.78*	*3.49*	*3.11*
Decentralization	10.40	7.97	8.19	9.51	11.17	3.56	10.25	5.96	8.38
	3.75	*3.19*	*3.12*	*2.70*	*4.41*	*3.01*	*4.24*	*3.65*	*3.51*
Immigration	14.11	6.74	8.28	10.27	7.60	13.17	6.85	11.52	9.82
	4.28	*3.03*	*2.87*	*3.67*	*3.56*	*4.94*	*3.61*	*4.18*	*3.77*
US affairs	17.43	6.92	9.44	12.18	1.96	15.95	2.73	14.84	10.18
	2.94	*3.35*	*3.64*	*3.10*	*1.90*	*3.64*	*2.67*	*3.83*	*3.13*
Defense policy	18.20	7.10	9.44	11.02	2.59	16.26	2.96	14.88	10.31
	2.41	*3.66*	*3.51*	*3.34*	*2.63*	*3.56*	*2.45*	*3.39*	*3.12*
National identity	10.16	14.70	14.53	14.45	6.90	15.91	9.94	15.57	13.52
	5.25	*4.58*	*4.03*	*4.74*	*5.80*	*4.74*	*6.22*	*4.56*	*4.99*
Sympathetic/close to	11.50	8.07	10.60	12.36	13.02	13.85	12.49	12.49	11.80
Respondent	*5.48*	*4.92*	*4.16*	*4.59*	*5.47*	*5.51*	*5.21*	*4.37*	*4.96*

LDP, Liberal Democratic Party; CDP, Constitutional Democratic Party; Minshin, The Democratic Party; KOMEI, *Komeito*; JCP, Japan Communist Party; JIP, Japanese Innovation Party; SDP, Social Democratic Party; Hope, Hope Party.
Note: Most left-wing position = 1; most right-wing position = 20. Standard deviations are shown in italics.

Table 3. Party positions on policy scales in Japan, 2017 (II) importance

Policy	LDP	CDP	Minshin	KOMEI	JCP	JIP	SDP	Hope	Mean
Spending vs taxes	6.89	7.77	8.26	7.29	7.62	6.27	8.70	7.75	7.57
	4.16	*3.87*	*3.51*	*3.80*	*5.35*	*4.75*	*4.87*	*4.37*	*4.34*
Deregulation	8.30	11.17	10.50	10.66	11.90	5.88	12.01	8.15	9.82
	4.12	*3.92*	*3.47*	*3.55*	*6.68*	*5.41*	*5.92*	*4.46*	*4.69*
Deficit bonds	7.53	8.63	9.00	9.04	9.98	8.40	10.35	9.30	9.03
	4.84	*4.45*	*4.21*	*4.25*	*5.58*	*5.03*	*5.50*	*4.65*	*4.81*
Social policy	10.77	6.50	8.62	9.26	8.14	11.47	6.49	10.62	8.98
	5.93	*3.77*	*3.78*	*4.26*	*5.02*	*5.21*	*4.50*	*4.51*	*4.62*
Environment	13.99	8.67	9.90	10.22	8.54	13.76	7.92	11.14	10.52
	4.61	*4.01*	*3.62*	*4.36*	*4.66*	*4.24*	*4.44*	*4.49*	*4.30*
Decentralization	10.88	10.48	9.91	11.50	12.60	3.97	12.21	7.04	9.82
	4.43	*3.85*	*3.32*	*4.01*	*4.46*	*4.01*	*4.29*	*4.53*	*4.11*
Immigration	9.44	8.90	9.48	10.12	10.19	9.83	9.46	10.20	9.70
	4.95	*3.64*	*3.47*	*4.09*	*4.49*	*4.90*	*4.76*	*4.45*	*4.34*
US affairs	4.03	8.04	8.25	7.94	7.77	7.64	7.82	7.29	7.35
	4.95	*4.49*	*3.73*	*4.01*	*7.10*	*5.33*	*6.45*	*4.70*	*5.10*
Defense policy	3.58	7.80	8.45	8.58	7.04	6.94	7.16	6.81	7.05
	4.16	*4.28*	*4.05*	*4.11*	*6.52*	*5.26*	*6.14*	*4.18*	*4.84*
National identity	6.09	10.39	10.95	10.38	9.10	9.29	10.06	10.06	9.54
	5.49	*4.45*	*3.98*	*4.86*	*5.76*	*5.90*	*5.30*	*5.07*	*5.10*

LDP, Liberal Democratic Party; CDP, Constitutional Democratic Party; Minshin, The Democratic Party; KOMEI, *Komeito*; JCP, Japan Communist Party; JIP, Japanese Innovation Party; SDP, Social Democratic Party; Hope, Hope Party.
Note: Most important = 1; least important = 20. Standard deviations are shown in italics.

limitation of perception and the ability of scaling of 'respondents,' i.e., experts. Parties do not necessarily distinguish policy positions clearly. In the real dynamics of party politics, parties often change which policy is important for them.

Based on empirical observations, our method departed from the previous one by taking into consideration the experts' disagreement on scaling. On the issue position of party policies, consider that the averaged responses of experts show one party position closer to the left and another one closer to the right end (e.g., the positions of the JCP and the LDP, respectively, on defense policy in Table 2). Our approach interpreted that their positions were clearly and consistently different only if the experts agreed on scaling their positions. Alternatively, if experts disagreed on scaling, this implied that their positions, although they appeared distinct, did not necessarily reflect a clear cleavage.

The same can be applied to the interpretation of the issue salience of policies. Even if the averaged experts' responses indicate the great importance of policies for parties (e.g., see defense and spending vs tax policies in Table 3), our interpretation also takes into consideration whether experts (dis)agree on scaling of their importance. If experts (dis)agree on scaling, it is plausible that the importance of the policies is (not) considered stable and/or standing.

Based on this assumption, we analyzed the variance in the experts' responses based on DIF theory to extend it to the dimensional analysis of party policy positions. More specifically, we applied the DIF analysis of Aldrich McKelvey scaling to the expert survey data and examined the disagreements of the experts as represented by the 'negative weights' of the issue positions and issue salience of policies. This allowed us to draw inferences about whether parties clearly distinguish policy positions and consistently assign importance to policy issues, respectively. The strength of DIF analysis lies in its evaluation of an overall consistency of aggregated responses and a comparison of the implications of uncertainty for the issue position and the issue salience of different policies. To find out policy dimensions that are latent, in addition to the one that caused the party split, we extended the analysis to a multi-dimensional space and applied the Blackbox transpose scaling to the issue positions. The next section will detail these methods.

4. Method

We first used a method that corrects for the DIF of Aldrich–McKelvey scaling to issue salience and issue position of political stimuli (i.e., party policies) from scaling data among survey respondents (i.e., experts). Respondents are believed to interpret the issue of scales differently and distort the placement of parties. The existing DIF analysis, thus, assumed that individual-level distortion arose from perceptual limitations and biases, which are represented by negative weights, and should be corrected (e.g., see Lindstadt *et al.*, 2020). We qualified this assumption. Experts disagree on scaling the issue salience of policies because parties fail to discriminate the issue position and issue salience across different policies. In particular, the absence of agreement on issue positions, i.e., the higher negative weight, shows that parties fail to distinguish their policy positions along latent issue 'dimensions.' We then used Blackbox transpose scaling (Armstrong *et al.*, 2014; Poole *et al.*, 2016, 2013) to capture the multi-dimensional space directly from the single-dimensional placement survey question. In Section 4.1, both scaling methods are explained in detail.

4.1. Differential item functioning error in Aldrich–McKelvey scaling analysis

Aldrich–McKelvey scaling is a powerful tool to correct DIF that arises from different interpretations of issue scaling and to elicit a single, latent dimension, i.e., the left–right ideology and a liberal–conservative difference (e.g., see Aldrich and McKelvey, 1977; Aldrich and Poole, 2007; Hare *et al.*, 2015). We applied the method to the analysis of the issue salience and issue positions of policies for all parties based on the experts' responses.

Let z_{ij} be the reported parties' placement j ($j = 1,\ldots\ldots,q$) by expert i ($i = 1,\ldots\ldots,n$) in issue scaling. This method treats the reported party placement of respondents as a linear function of these 'true' placement of stimuli ζ_j and error term μ_{ij} as follows:

$$z_{ij} = \alpha_i + \beta_i\zeta_j + \mu_{ij}$$

The weight term β_i and intercept term α_i reflect respondents' distortion about party placements in a political space. The intercept term α_i indicates the extent to which respondents tend to bias their party positions rightward or leftward in a single dimension. The weight term β_i captures respondents' capacity for the overall placement of parties. Bias-corrected individual ideal points can be obtained as follows:

$$x_i = \alpha_i + \beta_i z_{i(\text{self})}$$

We focused on both bias-corrected, individual, ideal points and common, party stimuli.

The existing DIF analysis assumes that individual-level distortion arises from perceptual limitations and biases, which are represented by weight term, β_i. The weight parameters of distortion, which are called 'negative weights,' are considered inappropriately high to be used for analysis and thus are attempted to be corrected (e.g., see Lindstadt *et al.*, 2020). Unlike the existing approach, our analysis here did not regard negative weights as measurement errors; rather it considered them to be indicators of the inconsistency of the parties' own placements. When experts fail to agree on which policy has a higher issue salience for parties, parties themselves may fail to focus on important policies and emphasize them as issues. Similarly, when experts disagree on the issue positions of parties, the parties' own distinction on policy positions may not be clear or consistent. We assumed that the absence of agreement among experts, i.e., the higher negative weight on the issue salience and the issue position, resulted from the parties' failure rather than the experts'. Negative weights are considered as measures of the inconsistent representation of issue salience and the unclear distinction of issue positions by parties.

4.2. Multi-dimensional analysis by Blackbox transpose scaling analysis

Although issue salience is distinguished by a scale that ranges from more to less important, the similarities and differences in the issue position of parties may not be reduced to a single-dimension. To

analyze the multi-dimensionality of issue positions, we then used Blackbox transpose scaling, building on Poole (1998), who generalizes the Aldrich–McKelvey scaling method (Aldrich and McKelvey, 1977) to multiple dimensions for analyzing survey data. 'Blackbox transpose' scaling provides a generalized method for estimating stimuli locations for a k-dimensional space. The related tool of 'Blackbox' scaling is used primarily to estimate respondents' ideal points from a series of issue scale questions (Armstrong *et al.*, 2014; Poole *et al.*, 2016, 2013). The Blackbox transpose scaling is designed to estimate stimuli positions on a left–right spectrum from individual perceptions in k-dimensions. One advantage of Blackbox transpose scaling is to capture an aspect of the dimensionality of political space directly from a single left–right placement survey question applied to several stimuli.

Blackbox transpose scaling is designed primarily for estimating stimuli positions, but it also produces coordinates for individual respondents. Here, we began with a survey data matrix X_o of voters' left–right party placements on a 10-point scale. The algorithm estimated the values as follows: coordinates of stimuli Ψ; individual respondents' parameters of the weights W'; an intercept term c'; and an error term E_o.

$$X_o = [\Psi \, W' + J_n \cdot c'] + E_o$$

As a consequence, Blackbox transpose scaling decomposed the original matrix of n respondents by q questions to reduce the dimensionality and identified latent issue dimensions.

5. Analysis

5.1. Results of Aldrich–McKelvey scaling and Blackbox transpose scaling analyses

This section examines policy dimensions by combining the results of the negative weights of the Aldrich–McKelvey scaling analysis and the multi-dimensional placements of the Blackbox transpose scaling analysis. More specifically, we classified policy dimensions by the level of negative weights and the pattern of party positioning in multi-dimensional scaling. While examining all parties, as mentioned above, we focused on three splinter parties from Minshin: CDP, Hope, and Minshin and found a cleavage that fragmented the opposition camp.

Table 4 shows the negative weights of the Aldrich–McKelvey scaling analysis of experts' responses to policy positions and their importance. In this table, 10 policies are listed from top to bottom in order of decreasing negative weights in policy position – from environment to deficit bond – revealing a variation in negative weights. The negative weights of the experts' responses on the position and importance of policies are not correlated, and the value of negative weights is generally higher for importance than for position. Parties may fail to distinguish both the issue salience and issue position of policies. However, a higher level of negative weights of importance than of position implied a difference between issue salience and issue position for political competition. A change in the issue salience of policies, i.e., a shift in emphasis on an issue from one policy to another, often worked for

Table 4. Proportion of negative weights in Aldrich–McKelvey scaling

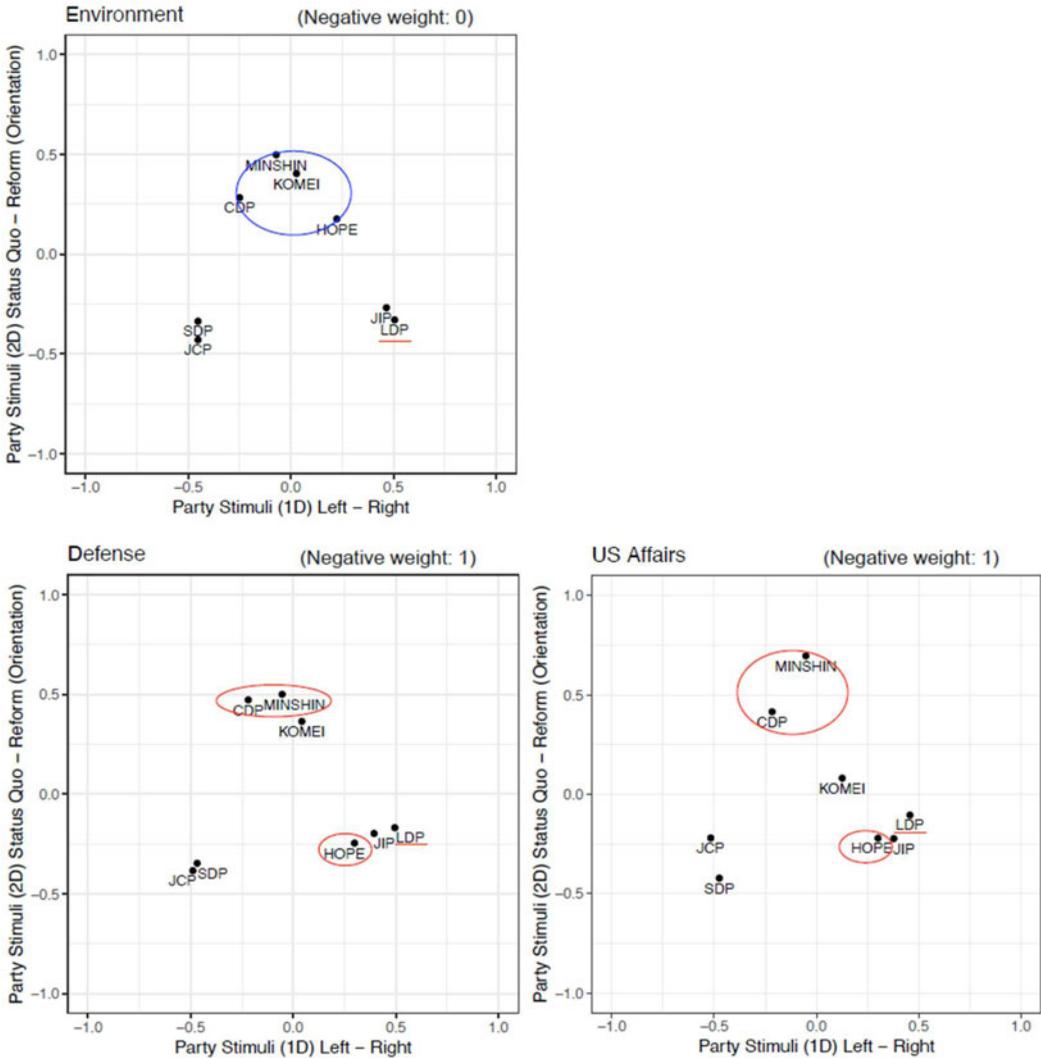|	Negative weights	
	Position	Importance
Environment	0	5
Defense	1	30
US affairs	1	41
Deregulation	2	30
Decentralization	4	6
Social	5	16
Immigration	6	37
National identity	11	27
Spending vs taxes	18	38
Deficit bonds	29	22

Figure 1. Blackbox transposing scaling of policy positions with negative weights.

competitive advantage and was thus pursued by political leaders and parties. In contrast, strategic advantage was not necessarily expected for parties to change issue positions.

Figure 2 summarizes the results of the Blackbox transpose scaling analysis. The Blackbox transpose scaling analysis identified the second dimension (2D, *y*-axis) in addition to the left–right ideological placement in the first dimension (1D, *x*-axis). The *x*-axis clearly refers to the left–right ideological placement, whereas the *y*-axis more likely distinguishes parties in the middle position from the ones in the left and right positions and thus represents the contest between the major opposition camp and the incumbent LDP.[11] It should be noted that this is not necessarily the same for policy dimensions, because the *y*-axis accounts for variation that cannot be explained by the *x*-axis.

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[11]The exception on the *y*-axis is in defense, US-Affairs, and National Identity where no clear distinction can be seen between the major opposition camp and the LDP. The reason for this may lie in the party split that occurred just before the 2017 general election and may be related to the issue salience noted in Hypothesis 3 of this paper. This point is discussed in more detail in Section 5.2.
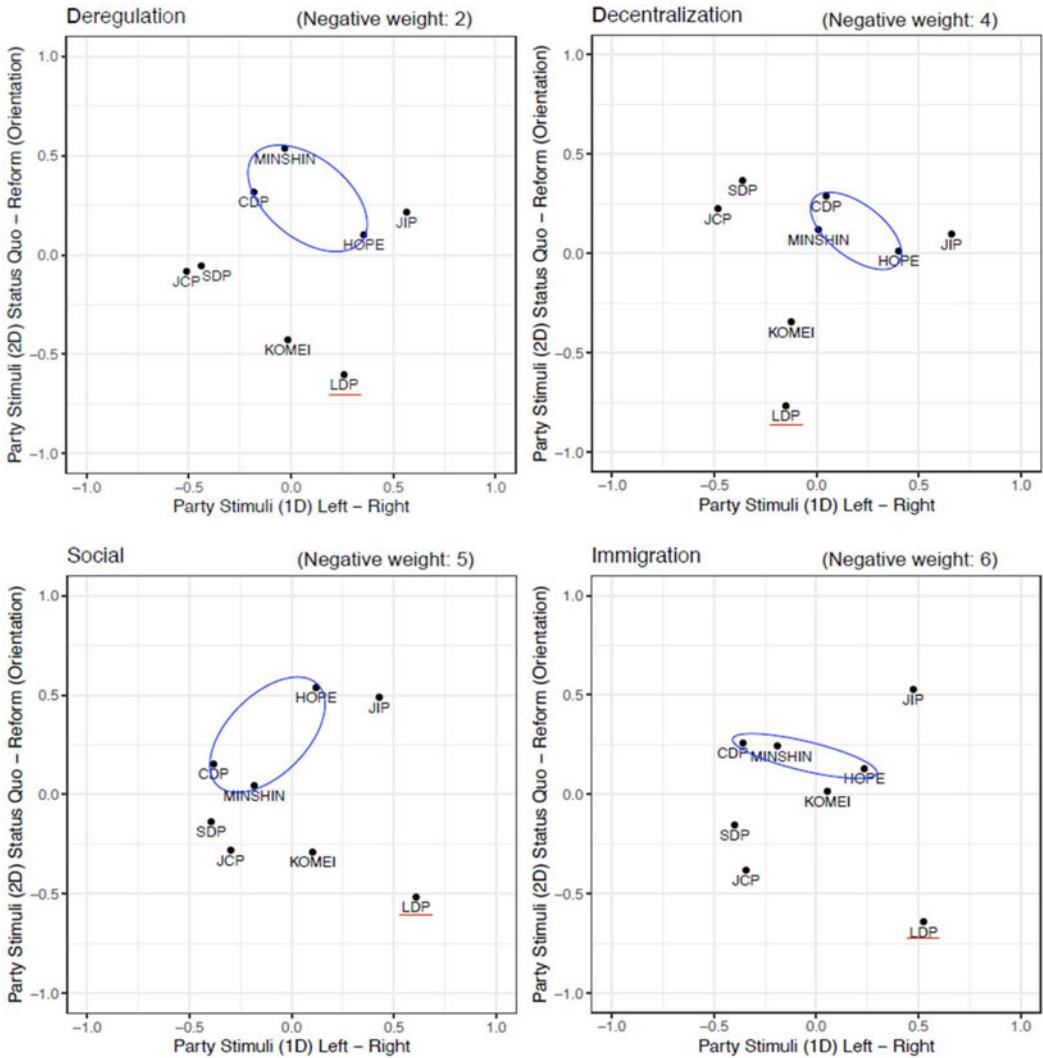
Figure 1. Continued.

With the discovery of the second dimension, the multi-dimensionality of policy space was confirmed (Hypothesis 1). Next, we focused on the clear distinction of policy positions (Hypothesis 2), and examined the Blackbox transpose scaling of policy dimensions from the ones with lower to higher negative weights. As already explained, in this study, a smaller negative weight shows that experts responded to the clearer and more consistent positioning of parties.

5.2. Interpretation of both analyses: issue salience and policy disagreement in 2017

According to Table 4, the negative weight on the policy position of defense policy is very low (negative weight = 1), the Blackbox transposing scaling (Figure 1 Defense) shows that the three splinter parties are far apart in their positions in 2D: the CDP and Minshin are located on the upper side, whereas Hope is located on the lower side close to the LDP. The result supports the hypothesis that the split of Minshin was caused by a defense policy disagreement. However, on environmental policy, where the negative weight of the policy position is even lower than in the defense position (negative
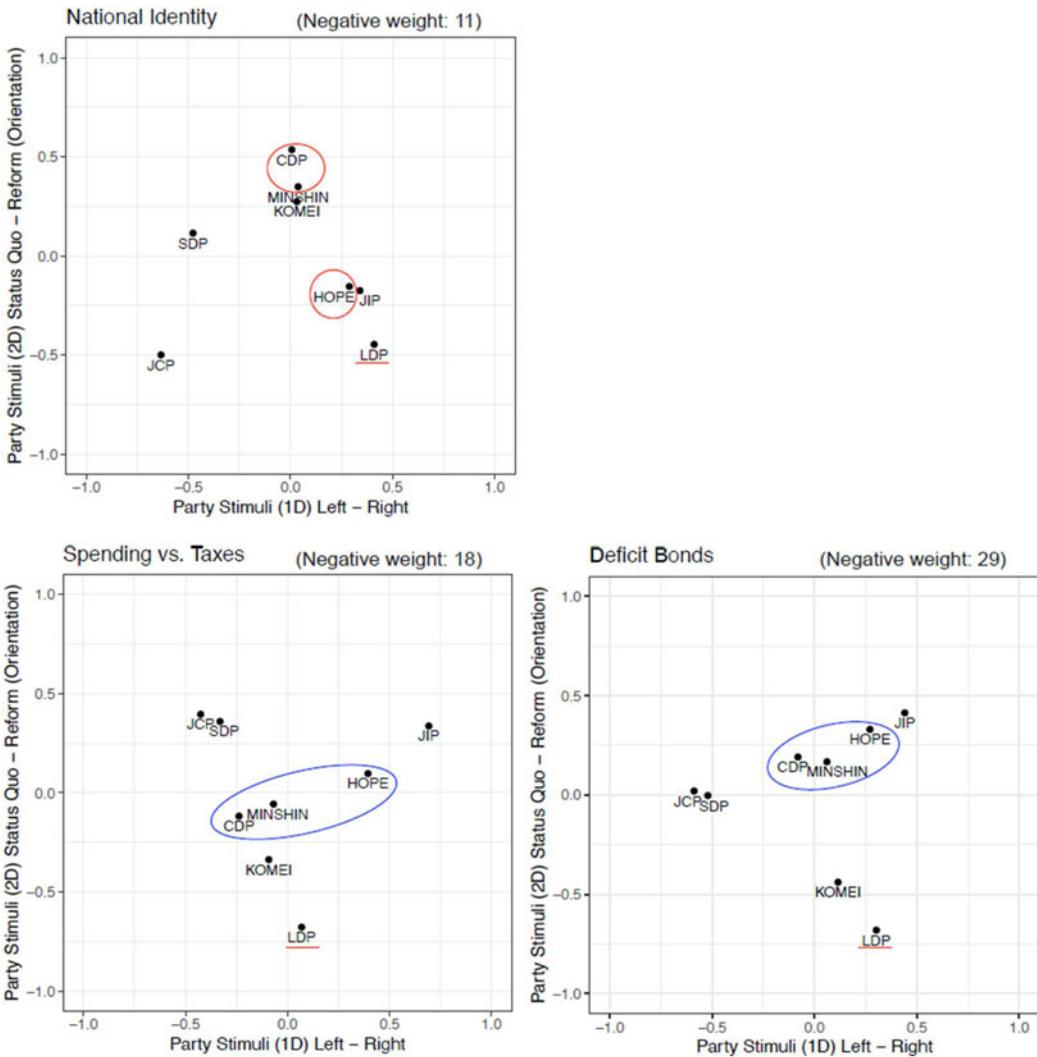
Figure 1. Continued.

weight = 0), the positions of the three splinter parties are convergent: all three parties are close and distant from the LDP in both 1D and 2D (Figure 1 Environment). Taken together, the major opposition camp is united to contest the incumbent LDP on environmental policy, but is fragmented, because the Hope is closer to the LDP on defense policy.[12] Whereas a clear disagreement on defense policy fragmented the major opposition camp (Hypothesis 2), a clear convergence of the three splinter parties was found on environmental policy.

These two patterns can be seen in other policies as well. Similar to their position on defense policy, the three splinter parties are apart on US affairs (see Figure 1 US affairs; negative weight = 1) and also on national identity policy, although it has a higher negative weight (= 11; Figure 1 national identity). Similar to their position on environmental policy, the splinter party positions are convergent on

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[12]The Komeito is a governing coalition party but is distant from the LDP on both defense and environmental policies. This is counter to the policy-seeking motivation of coalition formation, but their coalition was considered to be motivated by electoral incentives under the mixed-majoritarian system (see Liff and Maeda, 2019).
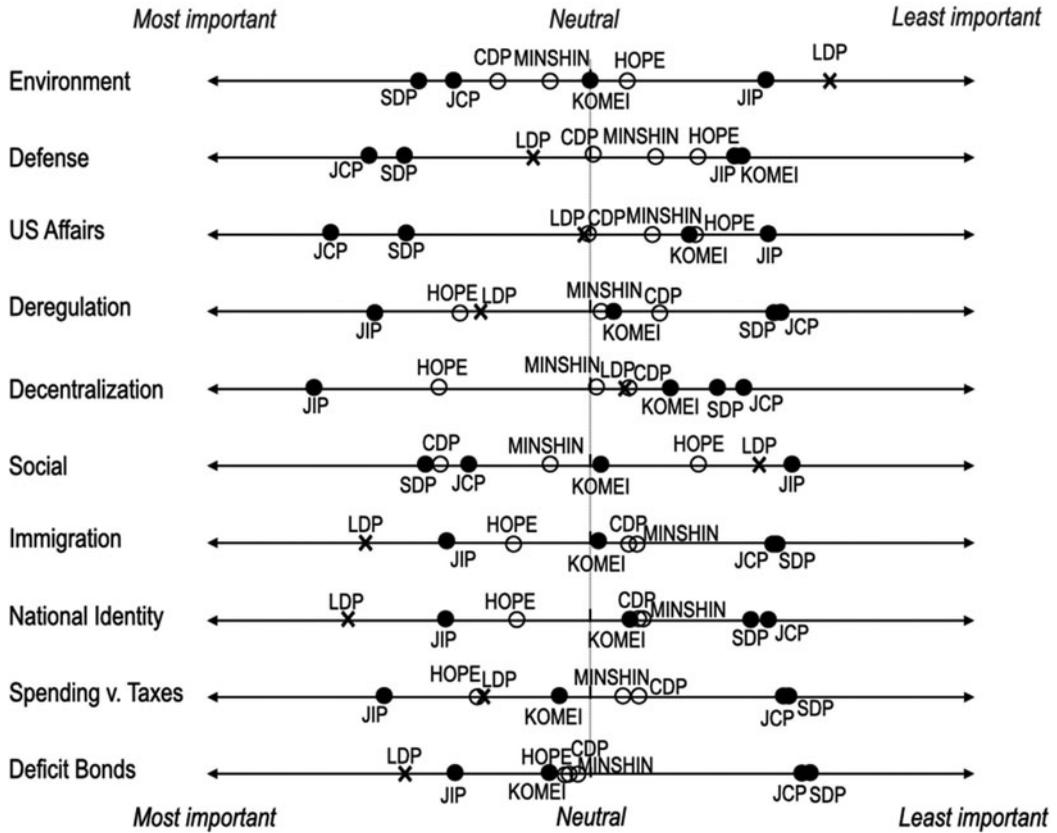
Figure 2. Policy issues with negative weights of importance.

decentralization and immigration policies and also on social and deregulation policies (Figure 1 Decentralization; Deregulation; Social; Immigration), all of which have very low negative weights. As a result, the policy positions are consistently and clearly divided into two distinct patterns that are both consistent and inconsistent with the fragmentation of the opposition camp. We therefore compared the issue salience of these policies, and attempted to find a reason for the fragmentation of the major opposition camp by the defense policy disagreement.

The simple expert responses indicated the highest importance of defense policy among 10 policies, especially for the LDP and Hope, as already introduced (Table 3).[13] However, with a high negative weight (= 30) of scaling responses on defense policy (Table 4), Aldrich–McKelvey scaling revealed a different result after a correction of variance (Figure 2). The order of its importance was reversed, which does not necessarily indicate the greatest importance for the LDP and Hope. This may not refute the importance of defense policy as an issue but rather implies that the importance is not agreed upon by the experts. As observed in the political process, the politicization of defense policy itself that occurred just before the general election may have affected the judgment of the experts. The issue salience of defense policy was high but not stable, i.e., it may have been changed by the politicization as the issue for party switching. This result supports Hypothesis 3. Alternatively, the results of Aldrich–McKelvey scaling (Figure 2) are the same as the results of the simple means (see Table 3) in environmental and decentralization policies with low negative weights (= 5 and 6, respectively). This implies

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[13]Table 3 shows that, with the importance in the expert survey data, the means of defense policy is high, especially for the LDP (3.58) and Hope (6.81). Out of all eight parties, the LDP had the lowest average and Hope had the second lowest.

that the environmental and decentralization policies, which have a low negative weight in both position and importance, were latent issues about which the major opposition party would have been able to remain cohesive. The analysis of the Aldrich–McKelvey scaling thus explained the fragmentation of the major opposition camp by defense policy but also indicated the presence of latent issues (i.e., environmental and decentralization policies) that may have led to a different reorganization of parties.

Two remaining policies at the bottom of Table 4 – spending vs taxes and deficit bonds – are related to financial policy and have high negative weights in both position and importance. Financial policy is considered a major policy dimension in European countries and other democracies (Benoit and Laver, 2006). The data here indicate that even the policy position of each party is not distinguished, and its importance as an issue is susceptible to change. The position is not related to party switching but provides an interesting example of how the negative weight of the experts' responses coexists with the parties' positions on highly politicized policies. On financial policy, parties often support contradictory policies, such as opposing tax hikes while maintaining government spending.

6. Conclusion

We analyzed Japan's 2017 election expert survey data using Aldrich–McKelvey scaling and Blackbox transpose scaling analysis. We engaged a sophisticated method, which indicated a new aspect of party policy competition in Japanese politics.

The results of Aldrich–McKelvey scaling revealed the experts' disagreement on the positioning of parties; they indicated that party unity/split and party policy competition are interrelated in Japanese politics. Blackbox transpose scaling analysis showed that disagreement about defense policy split the Minshin (a major opposition party) into the Hope and the CDP in 2017 in a multi-dimensional space. The policy disagreement was politicized by a new party's leader just before the 2017 general election. As a result, the issue salience of defense policy increased, and the major opposition camp split into three parties. Equally important, the analysis found a latent issue that may have prevented the fragmentation of the major opposition camp. On environment, decentralization, and other policies, the positions of the splinter parties converged, which worked for the unity of the major opposition. The results supported the validity of our analysis in revealing which policy issues were the basis of party switching, including a latent one that did not cause the party split.

It is interesting that the Hope, which led the politicization of the defense policy disagreement and invited the Minshin to split, failed to gain seats in the 2017 general election. The first opposition party was the CDP, which was formed by Minshin members, whom the Hope had accepted as switchers.[14] Hope quickly lost its momentum and changed its name to the Democratic Party for the People (DPP). The CDP, which had taken control of the opposition camp, moved to merge again, but was able to capture only part of the DPP in 2020 and failed to increase its seats in the 2021 general election. The major opposition camp remained fragmented and failed to contest with the incumbent LDP as a unified camp. But the defense policy issue, which had caused its fragmentation, no longer played a role, which indicates the possibility of the reorganization of parties based on different policy issues.

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[14]In the 2017 general elections, the Hope won 50 seats and the CDP had 55 seats. The total number of seats was 465, with the LDP winning 284 seats and the Komeito 29 seats.

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