

Ideologies in Japanese Subnational Elections: Textual Content Analysis of Gubernatorial Candidate Manifestos

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Working paper for EAJS 2023 Conference Ghent
Panel Pol_IR_09 Presentation. August 18, 2023

Abstract: Partisan conflict and ideologies in Japan's subnational politics have largely been interpreted within the national conservative-progressive cleavage dimension. Following two decades of substantial decentralization and growing autonomy of local governments, however, recent research has paid greater attention and discovered more uniquely "local" dimensions and issues. These include phenomena such as populist neo-liberal chief executives in large cities, rising regionalist identity politics in certain regions like Fukushima and Okinawa, and various policy conflicts between central and subnational governments that go beyond national partisan divides. Despite expanded awareness of such complexities, there is still no systematic understanding of how Japanese subnational politics diverges from the national level in its ideological dimensions. This paper begins to fill this gap by applying content analysis of electoral campaign manifestos (*senkyo kōbō*) of nearly 400 national and gubernatorial candidates. The unique data set is analysed through two approaches. First, through a supervised learning method, the paper seeks to estimate the closeness of different types of subnational candidates to eight ideological groups (economic/cultural left and right, nativist, populist, feminist, and ecologist) generated from referent manifestos at national level. Second, through an unsupervised learning method, the paper seeks to capture dimensions of conflict in different types of gubernatorial and mayoral elections, comparing those with the national level. Our findings point to the existence of traditional progressive-conservative cleavage, as well as other dimensions which differ by population size of local governments. We also point out the existence of a wide range of ideological positions (including feminist, ecologist, and nativist) among subnational candidates, with differences between subnational candidates based on gender, incumbency, and electoral success.

Introduction

What kind of dimensions of conflict are salient in Japanese subnational elections? What kind of ideologies do subnational partisan and non-partisan candidates possess? How do these differ across subnational governments which vary by features such as size, fiscal strength, and urbanness? How do they compare with those at the national level? And finally, do these ideological dimensions of conflict impact competitiveness of elections and voter turnout? Such vital questions concerning the dynamics of Japanese subnational politics remain unexamined empirically. Instead, our current knowledge consists mainly of some long-standing assumptions about the ideological content of prefectural and municipal elections which are both vague and increasingly unhelpful.

Traditionally, Japan's subnational politics have largely been understood within the national conservative-progressive (*hoshu-kakushin*) cleavage and dimension of conflict. Governors and mayors were, and still often continue to be, classified as either conservative or progressive primarily based on their national party affiliation. Conservatives are understood to seek "development" in terms of investments in infrastructure and support for business growth, while progressives seek expanded "welfare" along with stronger regulation of business and development (Tsuji 2016, p.32-34, Kabashima 1996 p. 124). More recently, since the realignment at national level and emergence of neoliberal policies and actors in the 1990s, a new category has been added, the reformist (*kaikakuba*) governors and mayors (Tsuji 2016, p.35, Soga and Machidori 2007: p. 271). In contrast to these two traditional groupings which seek to expand spending, these reformists seek fiscal health through spending cuts. All three of these ideological classifications essentially reflect national economic dimensions of conflict and its evolution, making our understanding of subnational politics in Japan subordinate to national dynamics.

Another feature which has limited research and understanding of the ideological dimensions of Japanese prefectural and municipal elections is that partisan competition is limited and ambiguous. Nonpartisan or pan-partisan (so called *mutoha* or *ainori*) candidates are more common than candidates who campaign with a clear partisan affiliation. Moreover, candidates not backed by the ruling conservative party at national level have generally been only competitive in major urban areas. Rural and suburban areas have been dominated by conservatives. Real competition was seen to take place after elections, when local governments vied with each other in "lateral competition" to "extract resources from the center" (Muramatsu 1988, Scheiner 2006). As ideologies and their programs are generally tied to parties, the lack of clear partisan conflict has made it difficult to analyze subnational political ideology.

More recently, subnational conflict has been understood as one between the legislative and executive branches of government, rather than between different partisan candidates or groupings within the assembly. Governors and mayors are, regardless of their partisanship, assumed to be generally incentivized to cut spending, thus clashing with legislatures controlled by assembly members who are assumed to be individually incentivized, regardless of their partisanship, to expand particularistic benefits (Sunahara 2011).

These assumptions about ideological dimensions of subnational conflict for prefectural and municipal elections in Japan need to be re-examined. Such research is particularly necessary since there is growing evidence that subnational elections are becoming more complex, diversified, and less nationalized in orientation.

First and foremost, more than two decades of substantial decentralization since 2000 and growing autonomy of local governments have raised the stakes of local politics, leading to more uniquely

“local” dimensions and issues (see e.g. Soga 2019). Accompanying fiscal decentralization and overall reduction in subsidies to local governments have reduced dependency on the central government (Mochida 2007). Such expanded local autonomy has contributed to an increase in conflicts between central and subnational governments, oftentimes between co-partisans at different levels of government (see Hijino 2017). Finally, there has been a rise of high-profile subnational candidates and parties who do not neatly fit into either conservative, progressive, or reformist categories. These include the regional parties with which have emerged in Osaka, Nagoya, and Tokyo; populist left and nativist right candidates competing in subnational elections; along with the rise of identity politics identified in regions like Okinawa (e.g. Hieda et al. 2021, Yoshida 2020, Hijino and Vogt 2019)

Despite these new developments, there is still no systematic understanding of the diversity and ways in which Japanese subnational politics diverges from the national level in its ideological dimensions. We begin to fill this gap by applying content analysis of electoral campaign manifestos (*senkyo kōbō*) of some 400 national and gubernatorial candidates. The unique data set is analysed through two approaches. First, through a supervised learning method, the paper seeks to estimate the closeness of different types of subnational candidates to eight ideological groups (economic/cultural left and right, nativist, populist, feminist, and ecologist) generated from referent manifestos at national level. We use these referents to estimate the ideological positions of subnational candidates. Second, through an unsupervised learning method, the paper seeks to capture dimensions of conflict in different types of gubernatorial and mayoral elections, comparing those with the national level.

The paper is largely exploratory and descriptive, not hypothesis driven, as there is very little systematic knowledge of what kind of conflicts and ideologies drive Japanese subnational elections. The originality lies both in our dataset of chief executive gubernatorial candidates and the use of supervised and unsupervised approaches which have not been used before to estimate the ideologies of candidates and issue dimensions for Japanese subnational politics. The study also speaks to another substantially important topic: the fact that Japanese local democracy has suffered declining levels of participation and competitiveness over the years. How does the existence or lack of different dimensions of conflict and ideologically diverse candidates impact voter participation and closeness of elections? Do Japanese voters have meaningful choice for subnational elections?

The rest of the paper is structured as follows. We begin with a survey of how ideologies and dimensions of conflict have been defined and measured for subnational elections in Japan and the comparative literature. We then describe methods and data used to estimate ideologies and conflict dimensions in gubernatorial elections. We follow this with our findings and a discussion of how subnational and national competition diverges along with its implications for local democracy.

Literature review and theory

Conventional wisdom assumes subnational politics, particularly those for the municipal level, to be largely non-ideological, or at least less ideological than at national level. It is expected to be de-ideologized since communities tend to be homogeneous, with residents of similar socio-economic and partisan preferences tending to self-sort into the same communities (Tiebout 1956). Moreover, subnational governments, especially in highly centralized local government systems, tend to lack the authority to raise local taxes or administrative powers to deliver redistributive policies. And structurally, local governments are unable to prevent the exit of capital and residents dissatisfied with redistributive policies (Peterson 1981), thereby limiting the key distributive dimension of conflict. Since local governments lack authority over substantial matters, redistributive or

regulatory, they are seen as primarily responsible for what is assumed to be uncontroversial (and hence non-ideological) public service provision such as garbage collection and infrastructure maintenance.

Oliver et al. (2012), argues that the dynamics of democratic competition depend on the size (number of voters), scope (powers granted to the local government), and bias (heterogeneity of interests in a community) of the political community. As such, smaller political units are more “socially homogeneous, have a narrow scope, and are relatively unbiased” and hence “have few of the permanent political divisions that exist on the nation or state level” (2012: 184). Complementing these structural constraints is a normative view commonly held by politicians, voters, and scholars that subnational politics should be free of the undesirable influence of national-level partisan competition and their accompanying ideological conflicts.

Despite these structural and normative arguments that subnational politics will and should be non-ideological, there is a growing body of work that measures, compares and identifies the impact of ideologies in local elections and governance. For example, we know that the ideological differences of parties which control subnational governments result in diverging local policy outcomes such as the level and content of public expenditure (e.g. Tausanovich and Warshaw 2014, Soga and Machidori 2007). Some research has identified uniquely local dimensions of conflict in subnational elections, including divides over regionalism, greater autonomy, and whether or not a party addresses national issues in subnational elections (e.g. Alonso et al. 2013, Gross and Jankowski 2020, Cabeza et al. 2016). There have also been attempts to measure the degrees of populism, regionalism, and other classes of major ideologies in the discourse used by subnational parties (e.g. Heinisch et al. 2019). Others have explored how parties and partisan candidates alter their ideological content depending on the arena, whether it is in the national or subnational level, and territory in which the election takes place (e.g. Swenden and Maddens 2009, Massetti and Schakel 2016, Heinisch et al. 2019). These studies largely utilize text analyses of various public discourses generated by subnational party branches and politicians – including local manifestos, campaign speeches, party pamphlets and magazines, etc.

Turning to Japan, a few recent studies have sought to describe the nature and estimate the ideological positions of subnational politicians. These include qualitative assessments of the ideologies of individual high-profile subnational politicians, their local political movements, and their voters – e.g. Osaka mayor Toru Hashimoto, Nagoya mayor Takashi Kawamura and Tokyo governor Koike Yuriko and populism (e.g. Yoshida 2020, Hijino 2020, Hieda et al. 2021) Onaga Takashi and regionalism (Hijino and Vogt 2019). Quantitative studies have estimated the ideological positions of subnational politicians through textual analysis of candidate manifestos and assembly deliberations (e.g. Hakiyai 2020 Sunahara et al. 2020) and Twitter account followers (Miwa 2017). All such these previous quantitative studies estimate the positions of subnational politicians on an a priori dimension, mainly the traditional left-right (conservative-progressive) dimension, rather than considering the possibility of other ideological dimensions of conflict, particularly those unique to the subnational level.

The paper seeks to conduct systematic investigation into these areas by going beyond the traditional and national-centric approach to measuring ideological dimensions in Japanese subnational politics, by looking at the interplay of two connected areas: the type of ideologies held by candidates and the types of conflict dimensions which emerge in gubernatorial elections.

Before explaining the data and methods by which we explore these areas, we provide some theory on how the ideology of candidates relate to dimensions of conflict.

At its broadest, ideologies are ‘worldviews’ that provide coherent interpretations of the world and guidelines for dealing with collective problems (Knight 2006). They can be found at all levels of political processes and be meaningfully interpreted and identified through analysis of discourse (Van Dijk 2013, Freedon 2013). Ideologies create political communities, including most importantly political parties. (Berman 2011: 105) Though parties are key proponents, simplifiers, and repositories of ideologies, but they are not the only ones who develop, use, and are shaped by ideology (Freedon 2013). Thus, even non-partisan or pan-partisan candidates, which are common in Japan’s subnational elections, have distinct ideologies which could be identified. Ideologies have been classified based on the core themes and assumptions about the political world they exhibit into classifications such as liberalism, conservatism, socialism, anarchism, nationalism, fascism, populism, feminism, ecologism (Freedon 2013, Heywood 2021, e.g.).

Meanwhile, dimensions of conflict – or in Japanese *tairitsujiku* – is a central framework for understanding the nature of ideologies and party system. These conflict dimensions can be understood as enduring differences in the ideological orientation, and hence policy positions, between significant parties and thus a characterization of a party system (Lijphart 1981). Such dimensions are estimated from the discourse (manifestos, public statements) as well as policy positions of the parties.¹ In the Japanese literature, political ideology has been synonymous with dimensions of conflict. The consensus is that the post-war Japanese party system was driven by a conservative-progressive ideological dimension which combined a significant foreign policy dimension of issues related to military security (and reform of Article 9 in the Constitution) as well as economic left-right issues of small/large state, redistribution, trade liberalization and deregulation (Kabashima and Takenaka 1996, Otake 1999). More recent work has identified other dimensions of conflict in recent elections such as differences across parties in attitudes towards traditional LDP 55-system style clientelism, neoliberal reforms, particularism vs universalism, or reform vs anti-reform. (Tanaka 2009, Shinada 2011, Sakaiya 2011).

Based on these dimensions, the ideology of voters, candidates and parties have been assessed quantitatively (using manifesto content or electoral pledges of parties) (e.g. Shinada 2011 Proksch, Slapin, and Thies 2010, Taniguchi and Winkler 2020).

Existing literature tells us that conflict dimensions evolve along with changes in the political economy and institutional context. Parties also adapt and evolve their ideological orientation and policy positions along with these changes. Furthermore, the studies indicate that there are multiple classes of ideologies, not just the standard left-right (progressive-conservative) which may create new conflict dimension in a party system. This paper therefore applies these insights to subnational elections. We expect the variation across subnational government districts in Japan (over important socio-economic variables including fiscal and economic strength, urban-ness, industrial structure, unique local issues such as NIMBY, etc.) to shape the kind of conflict dimensions which emerge and the ideological dimensions in their subnational elections. We also expect that there will be, reflecting this divergence, more variety than the standard national progressive-conservative dimension and its two ideological groups.

Beyond such expectations, the paper does not posit any hypotheses. Instead, we explore how different characteristics of candidates (partisan-affiliation, gender, and incumbency) and subnational governments (population size and urban-ness) are reflected in the ideological orientation and conflict dimensions which emerge in their elections. In addition, we also explore whether the different types of partisan clashes in Japanese subnational elections, e.g. between LDP-backed and opposition-party backed candidates, between two conservative candidates when the conservative camp is split (*bosbu bunretsu*), or clashes between *ainori* and other candidates generate different dimensions of conflict. We finally examine if, as it has been argued for national

elections (Sakaiya 2015), when voters perceive ideological conflicts to be more distinct and when policy distance between parties to be wider, voter turnout increases.

Data and methods

To determine the dimensions of conflict and ideological content of subnational elections, we collect and analyse individual candidate manifestos (*senkyo kōbō*) for gubernatorial elections as well as national elections.

This campaign material has been used by scholars to measure the electoral appeals of Japanese politicians to voters systematically and objectively over a series of elections (Shinada 2001, Tsutsumi and Uekami 2007, Catalinac 2016, e.g.). They may not be reliable indicators of the party's or individual legislator's "true" intentions or actual policy performance once in office, but they are highly effective ways of measuring a candidate's strategy of appealing to voters (Catalinac 2016: 63-75).

The standardization of format and official nature of the campaign material allows for reliable comparisons across elections and regions. Moreover, these *kōbō* are usually archived by the local electoral commission in booklet form allowing for historical comparison of campaigning strategies. Compared to other sources of candidate information (such as mass media, speeches, and TV) a high proportion of voters are exposed to, and say they use to inform themselves of candidates, when casting votes.

These *kōbō* contain a wide range of content, typically including: name and picture of the candidate; party affiliation and nomination information; "catch copy" or slogans; personal and/or political philosophy; a list of policies (usually numbered or bullet-pointed) followed by details of the specific policy area; a list of policy accomplishments; a personal profile; and nominations (*suisen*) by individuals – oftentimes politicians from their own level or other levels of government, including ministers, party leaders, MPs, governors/mayors - or organizations.

We collected 250 candidate manifestos for 78 gubernatorial elections taking place between 2015 June and 2022 October. The candidate manifestos were downloaded from the Seijiyama.com website and turned into text data through OCR software (ABBYY Finereader). The text data was then read multiple times and corrected by the first author and research assistant for any errors or omissions caused during the digitalization process. The average word count for all manifestos was around 531 Japanese characters, with the range between 40 and 1857.

We also collected 115 candidate manifestos as reference text for 8 different ideological groups: economic left and right, cultural left and right, nativist, populist, feminist, and ecologist. Economic and cultural left and right referents (n=57) were sampled from the 2021 general election candidates with the most positive or negative responses to relevant questions in a candidate survey conducted (Asahi/Taniguchi 2021); nativists referents (n=17) were sampled from parliamentarians listed as former chairmen and vice-chairmen of the Nihon Kaigi, an ultra-nationalist and conservative NGO (Tawara 2016) and also candidates nominated by the Japan First Party and Kunimori, two nationalist parties; ecologists (n=10) were sampled from primarily subnational candidates nominated by Greens Japan, an environmental party; feminists (n = 15) were sampled from primarily subnational candidates nominated by the Alliance of Feminist Representatives; and populists (n= 16) were sampled from primarily subnational candidates who were evaluated as populists by previous research, these include individuals such as Hashimoto Taro, Kawamura Hajime, Sakurai Makoto, as well as candidates backed by their parties of Rewia Shinsengumi, Genzei Nippon, Japan First Party, and N-koku.

Candidate data (gender, age, vote share, past career, incumbency, and partisan nominations) and election data (date, electorate, votes cast, win-lose) on the Seijiyama.com website were also collected as variables. To determine partisanship, we consulted both the Seijiyama.com endorsement data as well as print media articles announcing the elections to determine if the candidate received official endorsement (*keōnin*), nomination (*suisen*), and/or support (*shien* or *shiji*) by official announcement of the national or local branch of parties. We also categorized elections by the urban-ness of the subnational government, using DID data.ⁱⁱ

All candidates who did not receive any endorsement, nomination, or support from national or local party branches were classified as *non-partisans*. Those which received both backing from incumbent and opposition parties at national level (i.e., those receiving backing from both LDP or the Komeito and either the Constitutional Democratic Party of Japan = CDP or the Democratic Party for the People = DPP or the Social Democratic Party = SDP or the Japanese Communist Party = JCP) were classified as *ainori*. Candidates who received backing from either of the parties on the right (LDP and Komeito) were classified as LDP; from either of the parties on the center-left (CDP or DPP) as *opposition*; from either of the parties on the left (JCP or SDP) as JCP/SDP; from Ishin no Kai as *Ishin*; from Reiwa Shinsengumi as *Reiwa* and Nippon Dai-itto as *Nippon*. Candidates backed by other parties (Genzei Nihon, N-koku, etc.) were placed in the category of *other parties*.

We also classified the elections based on the type of partisan clashes. In each of these categories, we discounted the existence of pure non-partisans and candidates from minor parties. The following are the 6 types of partisan clashes:

- 1) Ainori vs JCP/SDP = where an ainori candidate competed with a JCP/SDP-backed candidate (n = 33)
- 2) LDP vs JCP/SDP = where an LDP-backed candidate competed with a JCP/SDP-backed candidate (n = 11)
- 3) Hoshu bunretsu = where the conservatives split and had more than one candidate (n = 8)
- 4) Hokaku taiketsu = where both conservative and opposition parties backed separate candidates (n = 17)
- 5) Hokau taiketsu + alpha = where both conservative and opposition parties backed separate candidates and a “third pole” party of either Ishin, Tokyo First or Reiwa Shinsengumi nominated a candidate (n = 6)
- 6) Ishin vs Ainori = where an Ishin candidate competed with an ainori candidate (n = 2)

We analyze this manifesto data in two ways.

We first tokenize the manifesto data using MeCab ipadic neologd dictionary and Quanteda. We include nouns, adjectives, and verbs, but tokens that indicate persons and geographical names are excluded. Only hiragana tokens and those that constitute only one letter are excluded. Assuming a bag-of-words, texts of local manifestos are converted into a $d \times w$ document-term matrix, where d indicates the number of texts and w indicates the number of vocabulary (or a text is represented as a w -dimensional vector).

We then apply both supervised and semi-supervised learning methods using the referent manifestos of eight ideology groupings. Using a random forest algorithm we identify the closeness of subnational candidates to each of the different ideological groupings. The random forest algorithm is a variant of decision tree predictive model algorithms, which uses each feature to

classify data to target types (Montgomery and Olivella 2018). In existing research, the random forest algorithm is used to identify important features and predict parliamentary dissent (Slapin and Kirkland 2019).ⁱⁱⁱ The training sets of the algorithm are reference texts. The model learns frequently used words by each ideological family and assigns scores to terms. The model can be used to classify the local manifestos into the ideological families and calculate the predicted probabilities of each family.

We then use keywords generated from the referent manifestos to perform a keyword assisted topic model (ATM) analysis. A keyword ATM is a variant of topic models using latent Dirichlet allocation (LDA) (Eshima, Imai and Sasaki 2023). Topic models are the unsupervised learning models to estimate topics of texts using term frequency. For example, texts that use words like “economy,” “firm,” and “growth” are likely to refer to economy while texts that use words like “parliament,” “minister,” and “votes” are likely to refer to politics. The model uses pre-defined keywords when estimating topics, which then can yield more interpretable results. The method is suitable to measure concepts unlike the simple LDAs.^{iv} Using this analysis, we try to estimate the ideological content of candidates by partisanship, gender, and electoral win-lose.

Second, we apply the unsupervised learning method of correspondence analysis to discover the dimensions in which the language of the candidates diverges and interpret the kinds of dimensions of conflict and hence ideological divergence and conflict among candidates.

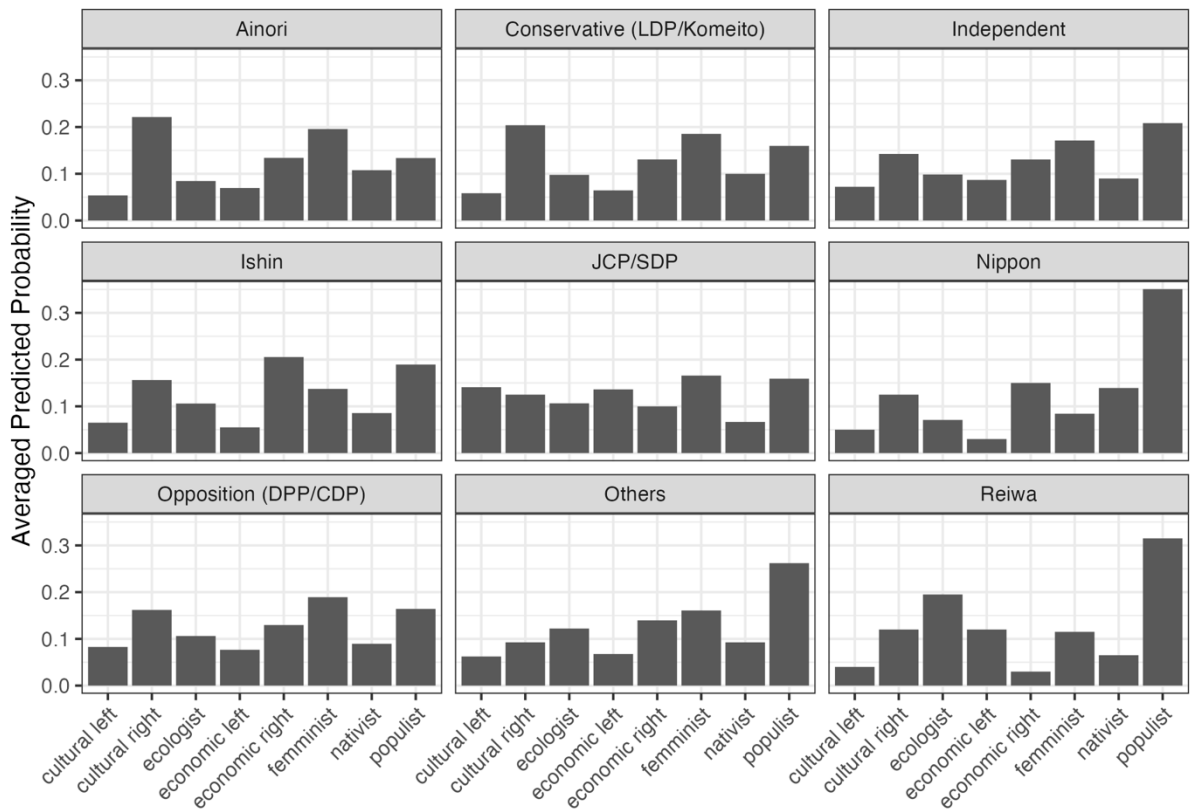
We use a correspondence analysis, in which the matrix is compressed into low dimensions, to recover the issue dimensions. In other words, a text that uses w unique words can be represented as a k -dimensional vector ($k < w$), using a correspondence analysis. Correspondence analysis is a method like principal component analysis for categorical data. Based on the results of the correspondence analysis, we describe the most significant dimensions of conflict for all elections, for types of elections by degree of urban-ness and also by the type of partisan clash. In the correspondence analysis, all candidates with less than 5 per cent vote share were judged as fringe candidates and excluded from analysis to focus on the dimensions of conflict generated by the main candidates.

Results

Random forest algorithm

We construct a model that predicts the subnational candidates’ membership of different ideological families using a random forest algorithm.

Figure 1: Results of random forests algorithm analysis of subnational candidates based on referent manifestos



Source: authors

The random forest algorithm results (Figure 1) show that most subnational candidates reflect a mixture of ideological elements. The predictions are largely within expectation, e.g. conservatives and ainori are mainly closest in language to cultural right, JCP/Socialist backed candidates to economic and cultural left, Ishin being most closest to economic right and Japan First Party to nativists. Gubernatorial candidates with language closest to populists are Japan First Party, Reiwa and other; closest to ecologists are Reiwa. All types of partisan candidates had similar levels of “feminist” language, except Ishin, Reiwa and Japan First.

Most candidate language share a mixture of elements with those of the referent manifesto language, with many sharing ecologist, populist, and feminist language. An explanation for this is that the reference manifestos for these types of ideologies including not just national parliamentary but numerous subnational assembly candidates (whereas the reference manifestos for the economic and cultural left/right and nativist are all parliamentarians).

Key ATM

The keywords (or seed words) used to estimate topics were generated by looking at frequently used unique terms of the referent manifestos for each of the ideological groups as well as terms and topics frequently affiliated with the ideological group.

We used the following keywords for each of the ideological groups:

- econ_left = c("福祉","格差","国保") welfare, inequality, national insurance
- econ_right = c("改革","民営","経営","規制","民間","緩和","規制緩和") reform, private sector, privatization, management, regulations, deregulation
- cul_left = c("別姓","多様","平和","戦争","憲法","共生") marriage with separate surnames, diversity, co-exist, constitution, peace, war
- cul_right = c("国土","郷土","治安","犯罪","ふるさと"), national territory, hometown, safety, crime, native land
- nativist = c("外国","国防","国家","国民","移民") foreigner, immigration, national defense, citizens (of the nation)
- populist = c("人民","庶民","あなた","一部") the people, the folk, you, some people
- feminist = c("女性","参画","dv","ハラスメント","男女平等","ジェンダー"), women, participation, dv, harassment gender, gender equality
- ecologist = c("炭素","原発","グリーン","緑","co2","温暖化") carbon, nuclear, green [in English and in Japanese], CO2, global warming

The key words are used to estimate 8 topics, plus 5 other topics^v (Table 1) which did not include any of these key terms, from the gubernatorial candidate manifestos (excluding candidates with less than 5 per cent vote share).

We provide other most frequently appearing words in relation to the key words; they appear to reflect the policy areas, concerns, and ideas which we expect to be salient to the ideological group. For example, the economic left topic, seeded by the key terms “welfare, inequality, national insurance” include various other words affiliated to employment, protecting lives, livelihood, education, medicine, protecting and expanding.

We assume that each of the topics are most frequently used by the relevant ideological group (hence topic one most frequently used by the economic left, and so on and so forth). And see the proportion of the candidate manifesto by partisan-backing, urban-ness, win-lose, and gender taken up by these 8 different topic categories.

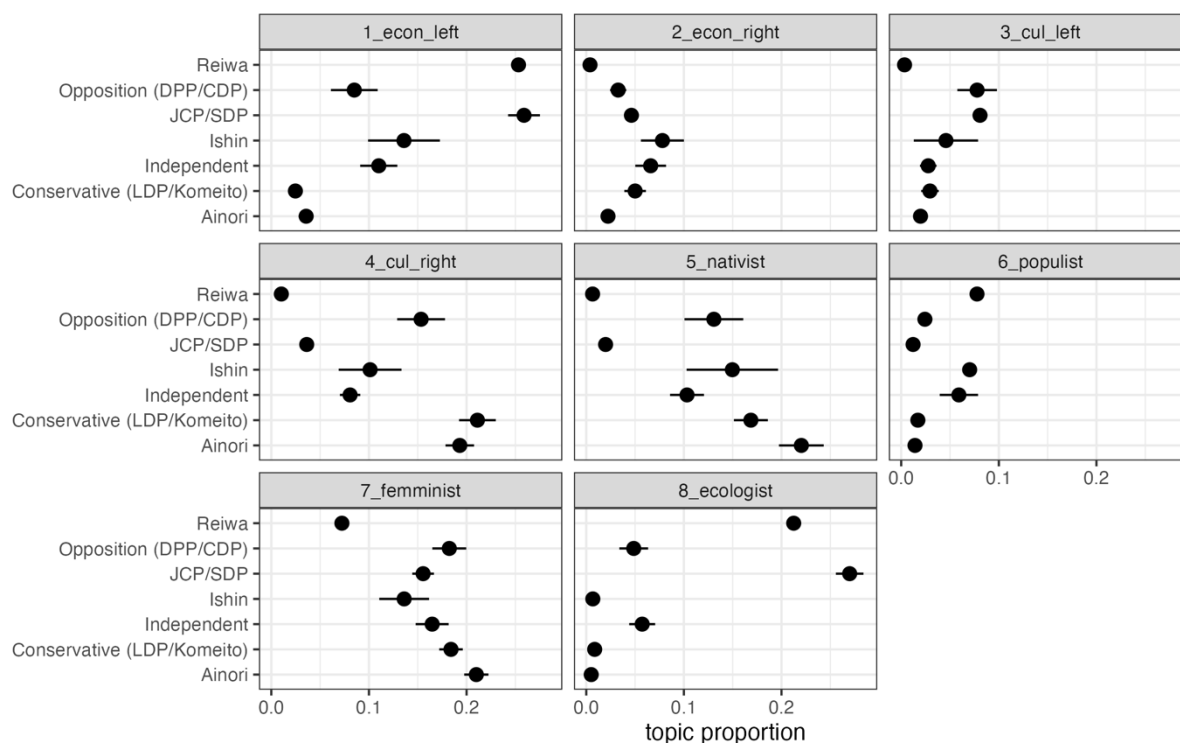
Table 1: Topics reflecting eight ideological groupings generated by key ATM

1_econ_left	2_econ_right	3_cul_left	4_cul_right	5_nationalist	6_populist	7_feminist	8_ecologist	Other_1	Other_2	Other_3	Other_4	Other_5
福祉 [✓]	知事	する	安心	推進	改革 [2]	地域	原発 [✓]	全国	全国	発信	対策	する
支援	若者	こと	実現	整備	知事	実現	くらし	実装	年間	野党	する	ため
対策	経営 [✓]	知事	社会	づくり	あなた [✓]	女性 [✓]	全国	良く	万人	清流	コ ロ ナ	支援
制度	日本一	づくり	づくり	強化	経験	子ども [✓]	反対	着手	増加	市民	政策	できる
守る	子育て	ため	ある	向上	組織	医療	政治	ダメ	成果	共同	経済	連携
暮らし	新しい	憲法 [✓]	推進	支援	行政	子育て	住宅	年間	きく	職場	事業	体制
助成	問題	求め	元気	充実	最大	教育	高校	医療	人口	撤回	新しい	環境
拡充	民間 [✓]	再生	世界	対策	現場	かし	介護	シニア	大切	稼働	防止	暮らし
医療	さい	多様 [✓]	災害	産業	皆さん	生活	卒業	このまま	都道府県	派遣	条例	新た
教育	徹底	計画	目指	人材	財政	充実	平和 [3]	本来	あたり	学習	なる	挑戦
予算	待機	対応	こと	振興	都市	県内	中止	リード	皆さん	教室	危機	取り組み
独自	年寄り	行動	防災	促進	一部 [✓]	守り	事業	ビス	減少	養成	進める	整備
削減	なり	戦争 [✓]	発信	観光	選挙	産業	増税	任期	創る	熱心	設置	向け
無料	不安	問題	活力	日本一	ポイント	豊か	応援	未知	財政	まり	導入	拡大
創設	アップ	考え	安全	健康	減税	よう	転換	次元	信頼	共闘	県立	強化
学級	自ら	たち	魅力	活躍	決断	未来	安心	なり	前進	開発	市町	社会
いのち	借金	一人	政策	育成	報酬	農業	財政	平均	ランキング	配布	実施	市町村
見直し	くだ	安全	時代	企業	直接	介護	税金	自治体	連続	尽く	提供	安心
コロナ	ワースト	環境	課題	確保	新幹線	希望	開発	くし	維新	優しい	大学	確保
雇用	いい	参加	復興	活用	自治体	すべて	稼働	先導	尽く	学ぶ	体制	構築

Source: authors

We find a generally good fit (expected fit) between the various ideological categories and the partisan gubernatorial candidates (Figure 2). JCP/SDP and Reiwa backed candidates are leaning most to the economic left, Ishin to the most economic right, Opposition and JCP/SDP to the most economic left, Ainori and Conservatives to the most culturally right, Ainori and Conservatives to the most nativist, Ishin, independents and Reiwa to the most populist, Ainori to the most feminist, and JCP/SDP and Reiwa to the most ecologist.

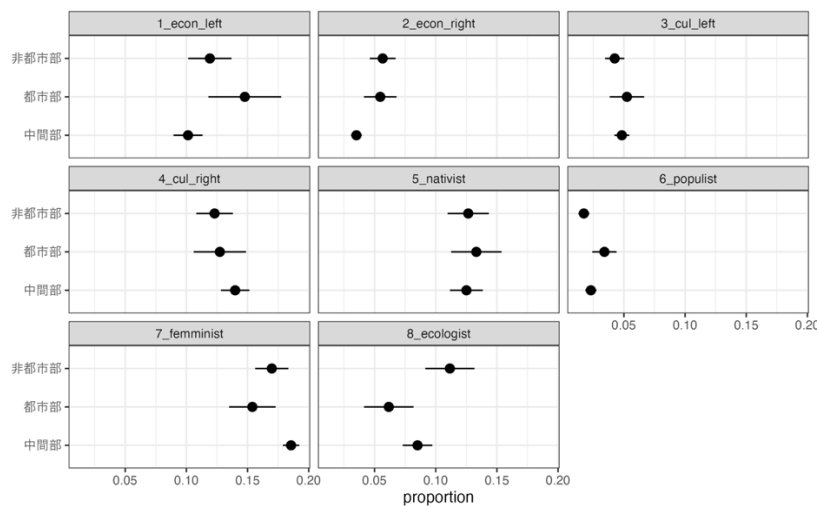
Figure 2: Key ATM analysis of subnational candidates by partisan affiliation



Source: authors

We also compared the ideological weighting of candidates by urban-ness of their prefecture (Figure 3). There are few clear distinct differences in the ideological tendency of candidates (as estimated by the proportion of topics referenced in their manifestos) by degree of urban-ness. Intriguingly, the cultural left topic is more common in urban areas and the ecologist topic is found to be more frequent in rural areas.

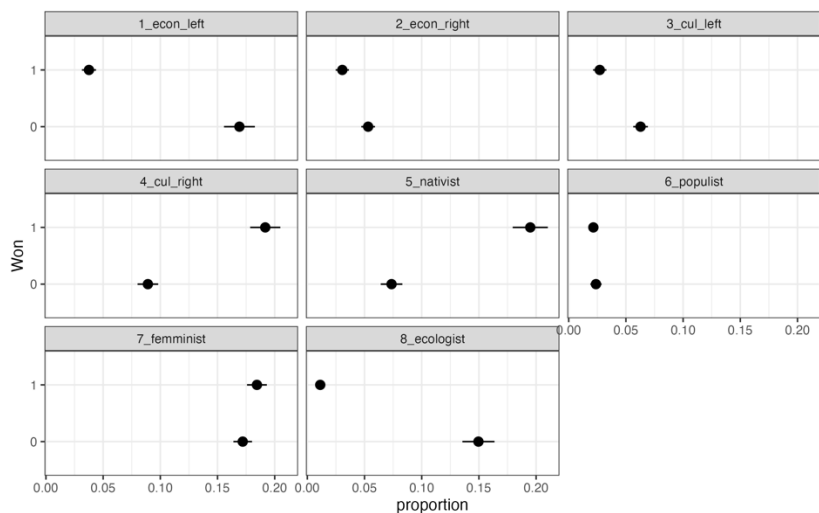
Figure 3: Key ATM analysis of subnational candidates by urban-ness



Source: authors

We find, however, some clear differences in ideological tendency (by proportion of topics referenced in the candidate manifestos) by winning or losing candidate (Figure 4): losing candidates tend to emphasize economic left and ecologist topics, whereas winning candidates tend to more frequently discuss cultural right and nativist topics.

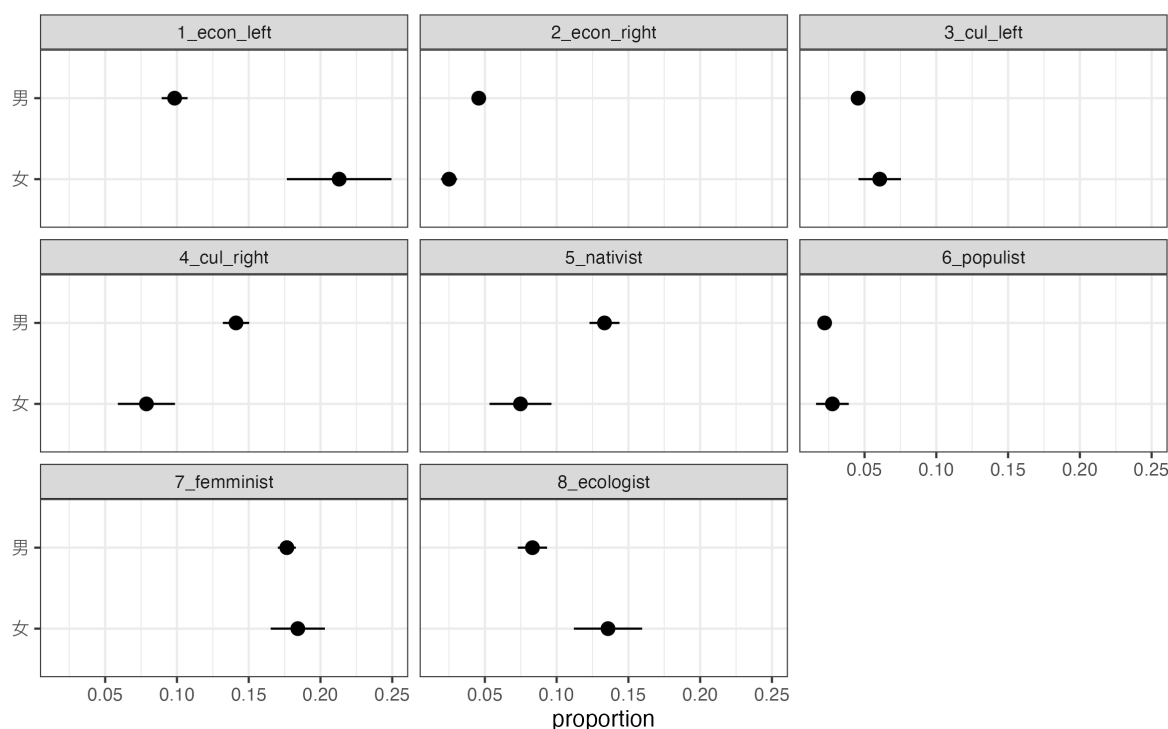
Figure 4: Key ATM analysis of subnational candidates by win-lose



Source: authors

Finally, by gender (Figure 5), female gubernatorial candidates tend to refer to economic left and ecologist topics more commonly, whereas men are leaning to the cultural right and nativist topics. There was little difference in other ideological differences, including for feminist ideologies by gender of candidate, suggesting that both male and female candidates equally refer to female work and social participation as well as policies around children, welfare, and education.

Figure 5: Key ATM analysis of subnational candidates by gender



Source: authors

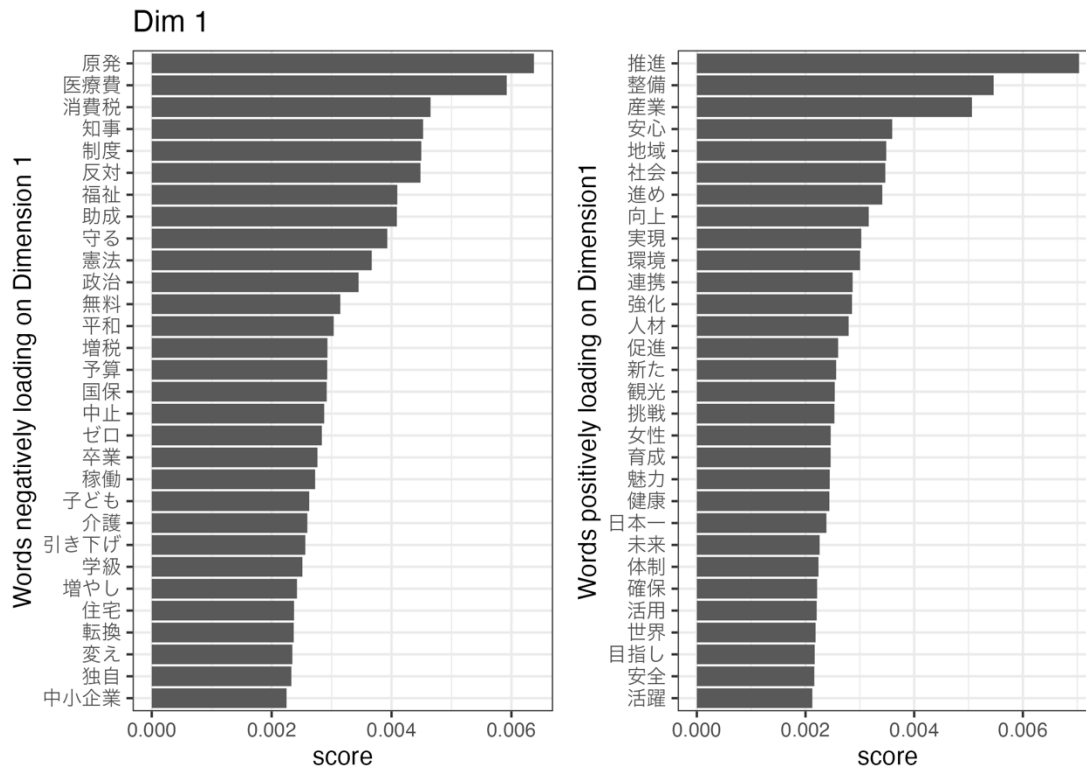
Correspondence analysis

A correspondence analysis of all candidates generated the following first dimension of conflict (Figure 6). The analysis divided candidates by factor loadings of terms weighted by their frequencies (proportion), such as: “nuclear power plant, governor, opposition, system, aid, welfare, protect, constitution, politics, peace, free, national insurance, budget, start, increase taxes, war, no” etc. against terms such as: “promote, establish/maintain, industry, safety, society, region, improve, realize, strengthen, environment, human resources, advance, tourism, challenge, health, first in Japan” etc.

This first dimension which can perhaps be described as “national issue position vs local valence dimension” suggests a conflict of candidates focusing on and opposing policies on nuclear power, constitutional reform, and international security against candidates focusing on industry and economic development as well as positive words praising / promoting the local government. This could be understood as a dimension on national issues and welfare (opposition to nuclear power, constitutional reform, war combined with demands for increased welfare) against local issues of

industry, economy, growth and emphasizing positive elements of the prefecture. The dimension seems to be less conflict, and more of a situation where candidates are *talking past each other* on different issues. On the one hand are strong positions on controversial issues (nuclear, constitution, security, tax raises) and on the other hand are language around what appear to be valence issues (growth, advance, improve, advanced).

Figure 6: correspondence analysis of all candidates (first dimension)

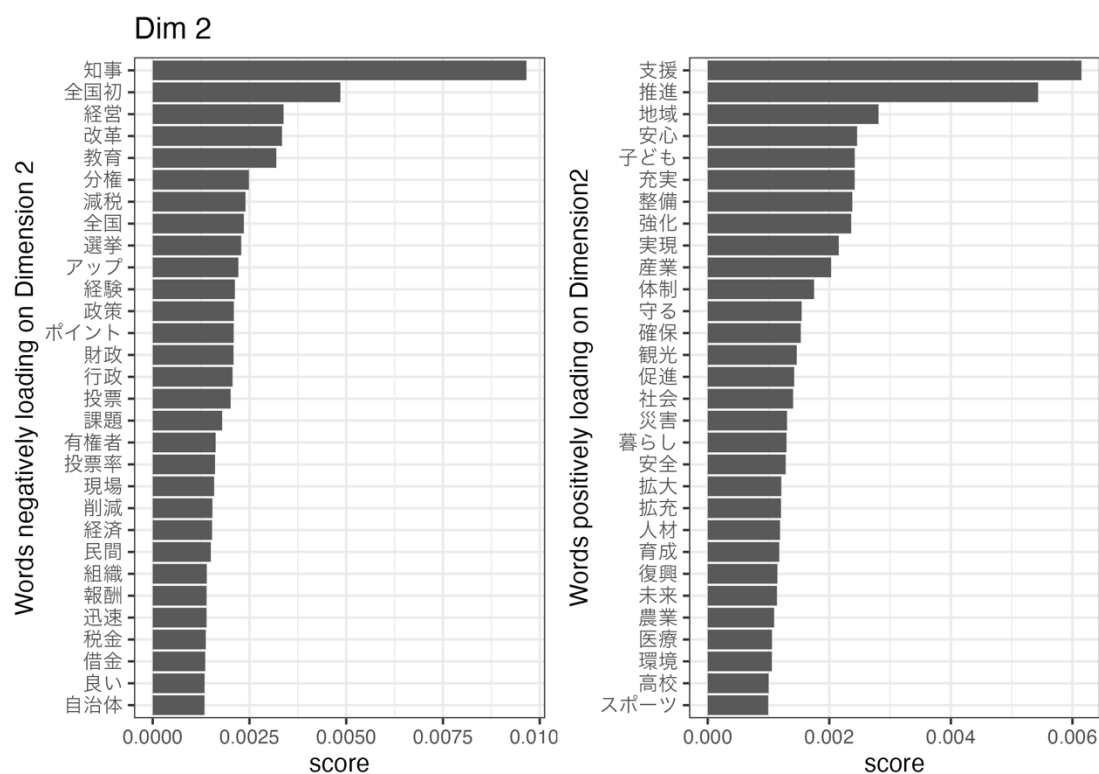


Source: authors

The correspondence analysis for all candidates also reveals a secondary dimension (Figure 7), with candidates divided by factor loadings of terms weighted by their frequencies (proportion) for terms such as: “reform, business, education, government finances, challenges, experience, policy, decentralization, reduced taxes, points, economy, private sector, wealth, administration, ranking, population” etc. vs terms such as “support, promote, maintain, children, region, strengthen, industry, business, natural disaster, sports, develop, agriculture” etc.

This second dimension, which can be described as the “structural reform dimension”, suggests candidates focusing on structural and administrative reform, including tax cuts, privatization, and decentralization are competing against candidates focused on promoting industry, agriculture, sport, etc. in the prefecture as well as natural disaster preparation. The dimension suggests a conflict between neo-liberal structural reformers/ economic right concerned about growth, population, and national ranking vs traditional pork-barrel spending and support for local industry, agriculture, and welfare programs.

Figure 7: correspondence analysis of all candidates (second dimension)

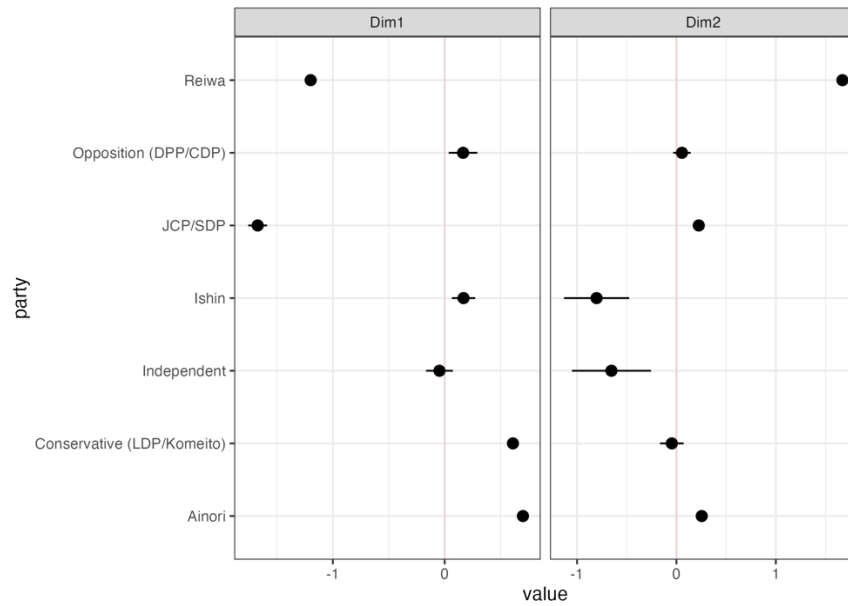


Source: authors

We then analyse where different candidates by partisan affiliation are on average placed on the two dimensions (Figure 8). We find that the communists/socialist and Reiwa-backed candidates tend to be those who more frequently emphasize opposition to national issues and promote welfare while the conservative (LDP) and ainori candidates more frequently emphasize local development and growth (dimension 1). Likewise, Ishin candidates clearly lean towards the structural reform/economic right agenda while ainori, communist/socialist candidates are slightly, and Reiwa candidates strongly, leaning towards the opposite end of local development agenda (dimension 2).

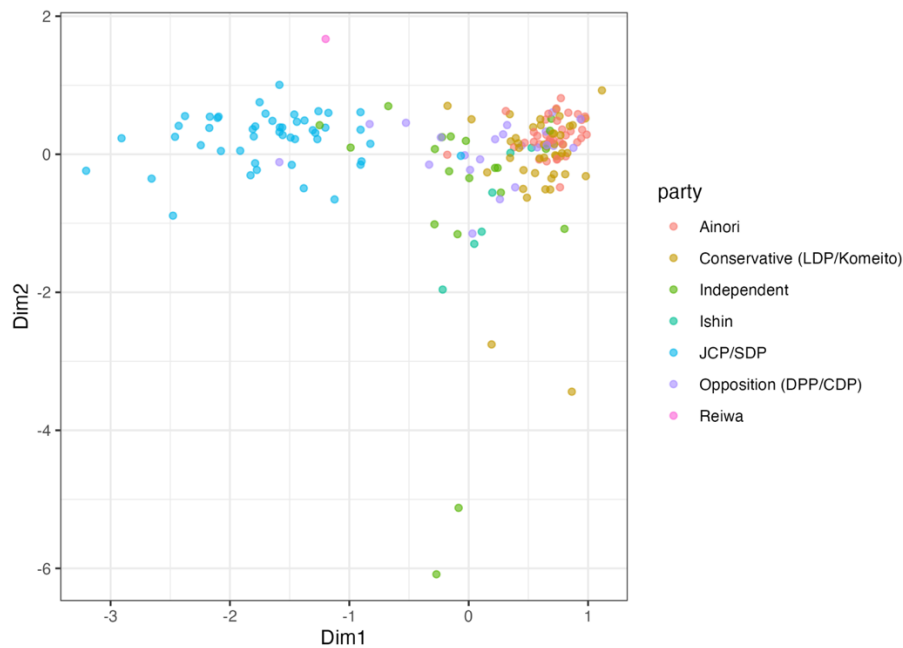
We also analyse how individual candidates by partisan affiliation are plotted on the two dimensions (Figure 9). We find that that the communists/socialists and reiwa candidates all tend to fall in the negative side of dimension 1, although the degree to which they emphasize national issues and welfare demands vary considerably. In contrast the conservatives, ainori, and opposition party candidates all tend to fall in a similar range both for dimension one and two - although there are some outlier ainori and conservative candidates who have extremely negative scores (emphasizing structural reform policies). Ishin candidates are consistently but appear not to be among the most negatively loaded on Dim2 among individual candidates.

Figure 8: Estimation of average candidates by partisan affiliation on conflict dimensions



Source: authors

Figure 9: Estimation of individual candidates by partisan affiliation on conflict dimensions



Source: Authors

We also seek to determine how strong the two dimensions of conflict are depending on the type of electoral clash in terms of partisanship. In the two tables below (Table 2 and 3), we estimate the

mean and standard deviation of the difference between candidates' estimated positions on the first and second dimensions.

Table 2: Dimension 1

type of election	mean_diff	sd_diff
Ainori vs JCP/SDP	2.1352810	0.7021080
Hokaku taiketsu	0.6337630	0.5050407
Hokaku taiketsu + alpha	0.5099617	0.3316096
Hoshu bunretsu	0.2995073	0.1815839
Ishin vs Ainori	0.6361291	0.2748538
LDP vs JCP/SDP	2.5796547	0.7689600

Source: authors

Table 3: Dimension 2

type of election	mean_diff	sd_diff
Ainori vs JCP/SDP	0.3890716	0.3277817
Hokaku taiketsu	0.4211428	0.3740560
Hokaku taiketsu + alpha	0.4063784	0.3798270
Hoshu bunretsu	0.7966761	1.0478814
Ishin vs Ainori	1.2477116	1.0779022
LDP vs JCP/SDP	0.7334745	0.9623664

Source: authors

The distance between candidates for dimension one (the national issues/welfare vs. local development and growth) appear strongest in contests between LDP or ainori vs JCP/SDP candidates. While for dimension 2, the distance between candidates appears strongest for conservative split (*hoshu bunretu*), LDP vs JCP/SDP, and Ishin vs Ainori contests, but there is a large range even within these types of partisan clashes as reflected by the higher standard deviations. Hence, where communist or socialist candidates appear as the main opposition candidate, the contests tend to widen on dimension one. In contests between conservatives, with a split conservative or Ishin, dimension 2 expands.

We also analysed differences in the contents of the dimensions of conflict by urban-ness of the subnational election as well as the type of partisan clash (the correspondence analyses results can be found in the Appendix 1 and 2).

We find that urban areas candidates are divided by a dimension of those focusing on “Covid, protecting (lives), subsidies, support and tax cuts, constitution and nuclear power, housing, school lunches, welfare, junior and high schools” vs “safety, society, health, child-raising, women, linking up, developing, growing, advancing”: we interpret this to be a divide over measures to deal with covid and various policy issues (national and local) as opposed to more positive abstractions and terms relating to growth, reform, and change.

For semi-urban regions, the most important dimension appears to involve a clash of those emphasizing local economic development with positive, abstract language (shine, upwards, develop, number one in Japan) vs those opposed to national policies (nuclear, constitutional reform, war/peace) and demanding greater welfare, protection of everyday lives.

In rural areas, candidates are split into those opposed to national policies (nuclear, constitutional reform, war/peace) and demanding greater welfare, protection of everyday lives vs about economic development and infrastructure, focus on industry, national disasters, sports, and promoting the region, as well as forward-looking language about women, world, changing times, innovating, succeeding and being attractive and first in Japan.

There appears to be some variation in the content of dimension one conflict across prefectures of differing urban-ness. It appears the national issue opposition/local economic development dimension is clearer and stronger for semi-urban to rural areas, than in the most urban ones where different types of candidates other than JCP/SDP ones are the main challengers.

By type of partisan clash, we find that when JCP/SDP candidates are the main/only challengers the contest is between candidates focused on opposition to national policies + expanding welfare vs candidates favouring local economic development and vague positive language favoured by incumbents. When the clash includes an Ishin candidate or there is a LDP split (*bosbu bunretsu*) we can see more of dimension 2 conflict of neo-liberal structural and economic reforms vs local economic development and vague positive language.

Finally, we run a linear regression (Table 3) to analyse how voter turnout is affected by ideological distance for the first dimension of conflict.^{vi} The dependent variable of the regression is turnout of elections. The main independent variable is top two candidates' differences in scores for dimension 1. Run-up ratio, DID, and type of elections are included as control variables. The coefficient for differences in scores has statistically significant negative sign. The larger the difference between top two candidates for dimension, the lower turnout in the election irrespective of types of elections and DID. This suggests that regardless of partisan type of clash and urban-ness of prefecture and how close the election is between the top two candidates, more voters tend to abstain from elections when dimension one is strong: where candidates focus on national policy issues and demand welfare go up against an incumbent appealing on valence issues of growth, development, and positive abstractions.

Table 3: Regression analysing voter turnout by ideological distance (dimension one)

	(1)
(Intercept)	49.992***
	(5.168)
diff	-4.802*
	(1.831)
Runner-up ratio	1.321
	(6.141)
DID 都市部	-5.593
	(4.027)
DID 非都市部	1.124
	(2.059)
type of electionHokaku taiketsu	0.475
	(3.346)
type of electionHokaku taiketsu + alpha	8.956*
	(4.402)
type of electionHoshu bunretsu	4.587
	(4.594)
type of electionIshin vs Ainori	1.284
	(5.650)
type of electionLDP vs JCP/SDP	1.559
	(3.078)
Num.Obs.	76
R2	0.460
R2 Adj.	0.387
AIC	539.2
BIC	564.9
RMSE	7.27

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Source: authors

Discussion and conclusion:

To recap some of our initial exploratory questions: Do partisan labels signal distinct ideologies and conflict dimensions in subnational elections in Japan? What are these dimensions and what kind of ideologies do they represent? And finally, do such distinct conflicts lead to higher turnout, as suggested elsewhere (Sakaiya 2015)?

As for the first question, our supervised and semi-supervised text analyses results (Figure 1 and 2) demonstrate divergent ideologies among gubernatorial candidates. Those of different partisan backing are predicted to largely lean differently towards the 8 ideological families derived from data primarily at national level. Conservatives, ainori, and independent candidates lean to the economic and cultural right, opposition are on the cultural left, Reiwa and JCP/SDP on the far economic and cultural left, Ishin on the far economic right. Elements of nativism, feminism, ecology, and populism were found among almost all candidates, but it appears the non-mainstream parties tended to lean more towards the language of these ideologies. Both pan-partisan and independent candidates, who are the majority for subnational elections, were essentially similar in

their ideological leanings to the conservatives, being cultural right more than left, but not discernibly more economic right. We also find that winning and male candidates tend to be more culturally and economically on the right, something that may not come as a surprise.

Through this analysis we succeed in quantitatively demonstrating a more nuanced picture of subnational ideologies beyond the traditional one-dimensional measure of left-right (progressive-conservative). This includes nativist, populist, feminist, and ecologist language, which was shared across many subnational candidates, but particularly pronounced in the non-mainstream party candidates. Since the ideological families are based on those primarily developed to analyse national-level ideologies, we have not been able to capture uniquely subnational ideologies, such as regionalism.

As for the second question, we identified through correspondence analysis the two most significant dimensions of conflict across candidates. The first one, the “national issue position vs local valence dimension”, where JCP/SDP backed candidates (and to some extent opposition candidates) criticize and oppose national policy issues – nuclear power, constitutional reform, security issues – while the incumbent emphasizes uncontroversial/de-ideological valence issues of growth, development, welfare measures in the prefecture. The second “structural reform dimension” emerges only strongly when an Ishin candidate or a conservative split provides another candidate on the right to diverge over economic policy: pursuing greater deregulation, privatization, structural reform and other economic right measures against traditional pork-barrel, and here again, valence issues of growth and development.

The two dimensions echo the existing literature assumptions that subnational politics is primarily contests between progressives emphasizing national-level issues against conservatives pushing for economic development, and more recently, a conflict over reformers and traditional big-tent, interest-group politics. However, the correspondence analysis also reveals some differences.

First, the two dimensions emerge with greater or lesser intensity in different contexts: depending on the existence of various partisan candidates, which in turn is shaped by urban-ness to a large extent. The dimension of conflict over national position issues vs local valence issues is less pronounced in urban areas than it is in semi-rural and rural prefectures. This probably reflects the shortage of candidates other than JCP/SDP backed ones. In the traditional literature and prevailing understanding, progressive-conservative partisan conflict was strongest in urban areas – for example during the progressive governor period. But the results here suggest that this conflict dimension is most evident in rural/semi-rural areas where the only challengers to the incumbent conservative are JCP/SDP backed candidates.

Second, although correspondence analysis cannot portray how the frequently loaded terms are used in context and how candidates address issues, it appears for both dimensions that candidates are *talking past one another*. Rather than addressing, from different ideological positions, a similar issue – such as distribution vs growth – the two sides are emphasizing different issues. In the first dimension, the gap is between national policy positions (which in any case subnational governments have no jurisdiction over) against non-controversial promises to invest, develop, grow, and manage the local economy and living conditions.

Third, the mainstream opposition candidates backed by the DPP or CDP are not substantially distinct from the LDP/ainori candidates on both dimensions of conflict (Figure 8 and 9). Hence head-to-head clashes between an LDP and an opposition backed candidate, however much media attention it generates, do not generate clashes with clear ideological differences.

Finally, and perhaps most interestingly, we find through linear regression that, regardless of the partisan clash or prefecture, when candidates are particularly distant in the same election over the first dimension – i.e. the main difference is over a question of national policy or local growth, voter turnout is low. This finding suggests that voters are not interested in the primary ideological dimensions of conflict found in Japanese subnational politics.

This last discovery speaks to the final question of whether Japanese voters are given a meaningful choice in gubernatorial elections in terms of clear and distinct ideological conflict signalled by partisan labels, which may compel them to vote in subnational elections. In many gubernatorial contests, with only a JCP or SDP backed candidate realistically challenging the incumbent, the ideological distance exists but is not appealing to voters.

In the 78 gubernatorial elections we analyse, only 17 elections were competitive with a runner-up ratio^{viii} (aka *sekihairistsu*) above 0.7. Revealingly, among these competitive elections, 6 were *boshu bunretsu* – a conservative split election between two LDP candidates, 11 were conflicts involving the LDP, a largest opposition backed candidate, and a third-pole party candidate. In contrast, the 61 uncompetitive contests were those between incumbents backed by the LDP or by a bandwagon of LDP and opposition against a lone JCP/SDP candidate. These contests result in the kind of ideologically distinct, but for voters, un compelling and hence unattractive elections leading to lower turnout. Average turnout for the competitive elections was at 52.5 per cent, while that of the uncompetitive ones was 42.5 per cent.

Sakaiya (2023) in his survey of the history of post-war Japanese parties claims that the national party system has reverted to a “neo-1955” system in recent years. I.e., the main partisan conflict between the LDP and main opposition parties, primarily the CDP, now run along the traditional progressive-conservative dimension around national security issues and constitutional reform. Although we do not have adequate time-series data to see how the dimensions of conflict have evolved in subnational politics, we find that the progressive gubernatorial candidates (backed mainly by JCP/SDP, not so much the CDP since there are very few CDP-only backed subnational candidates) are also pushing this traditional agenda of opposing constitutional reform and international security issues also at the subnational level. Evidence from gubernatorial candidate manifestos suggests this ideological position is both unattractive to voters and ineffective to win subnational contests.

Applying supervised and unsupervised textual analyses methods on gubernatorial election candidate manifestos, this paper quantified the nature of ideological contestation at subnational level in Japan. We have refined our understanding of the types of ideological conflict and differences by context and candidate type.

But some initial points raised in our query remain unaddressed. We have not been able to identify uniquely subnational dimensions of political conflict, e.g. those that reflect for example uniquely local NIMBY positions on bases or nuclear power or perhaps certain regionalist positions and attitudes against more centralist positions. The nature of the textual analysis which pools data from all prefectures washes away region-specific issues and dimensions of conflict unique to a particular prefecture. But a broader world view like regionalism (or anti-metropole attitudes) which can be considered an ideological family may potentially be shared by certain candidates across prefectures. In future studies, we hope to find referent candidates for regionalism, e.g. and keywords which may be able to ascertain this ideology. Finally, the paper limited itself to gubernatorial elections, but there is a whole other level of municipal elections – with even less empirical evidence and clear partisan labelling – in which to similarly analyse for ideological content and conflict. This may be a next step.

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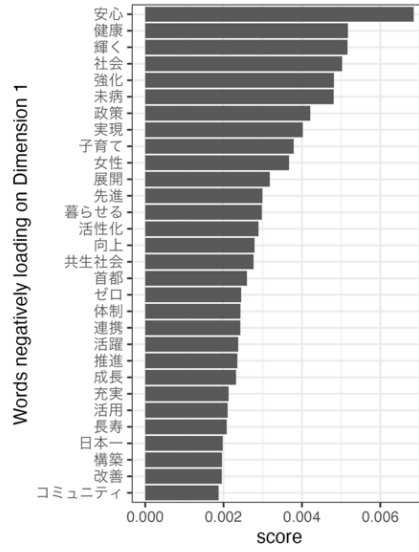
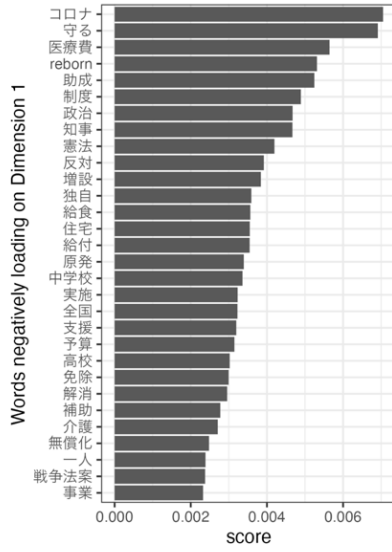
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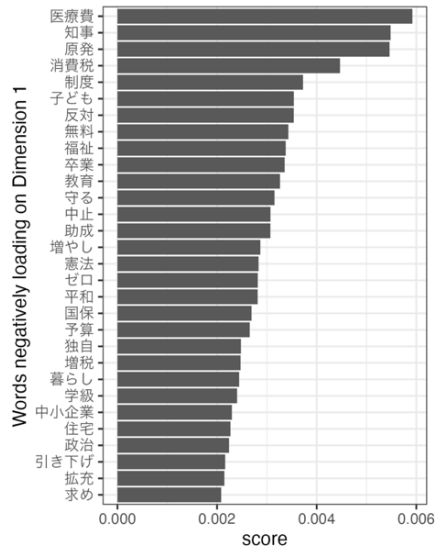
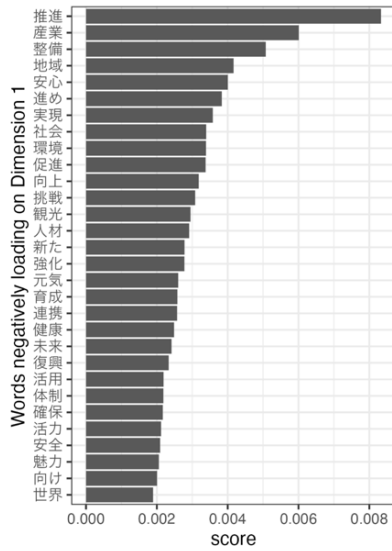
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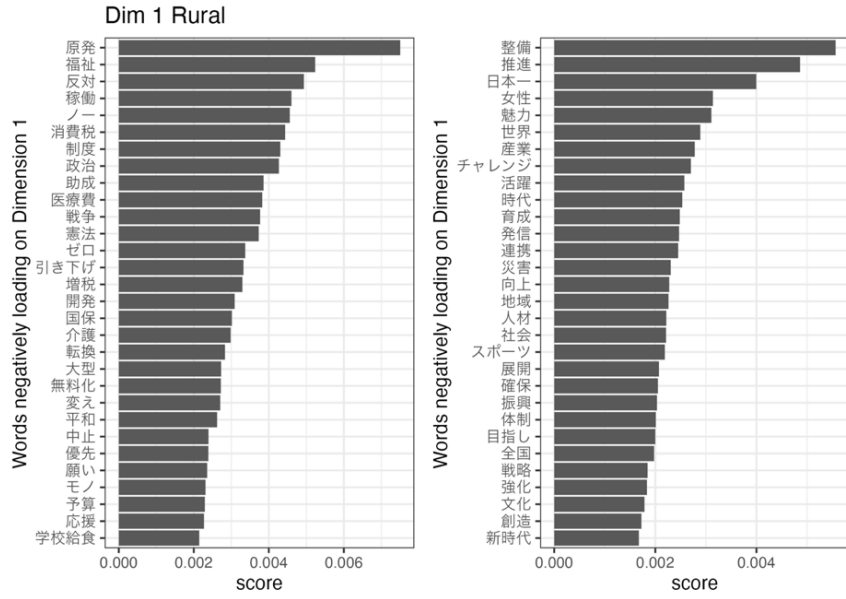
Appendix 1: Correspondence analysis by urban-ness

Dim 1 Urban

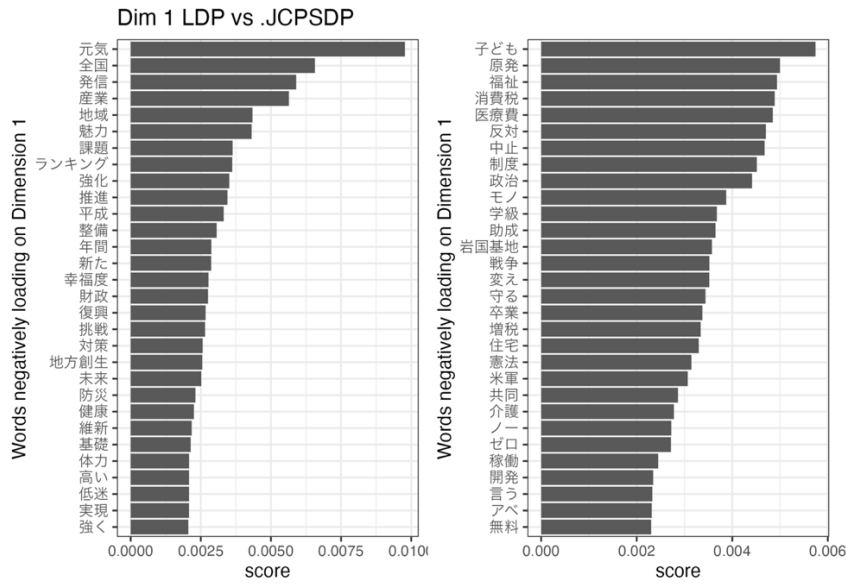


Dim 1 Chukan

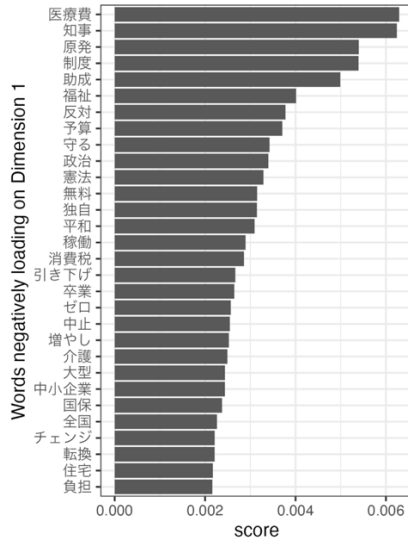
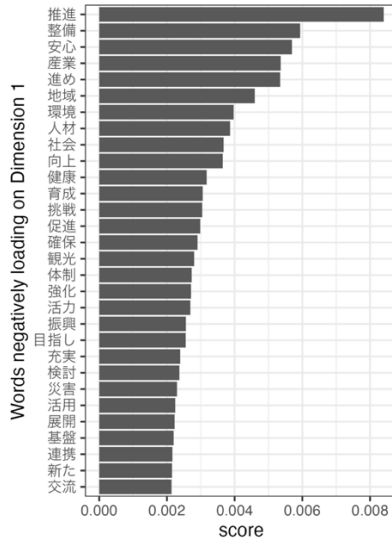




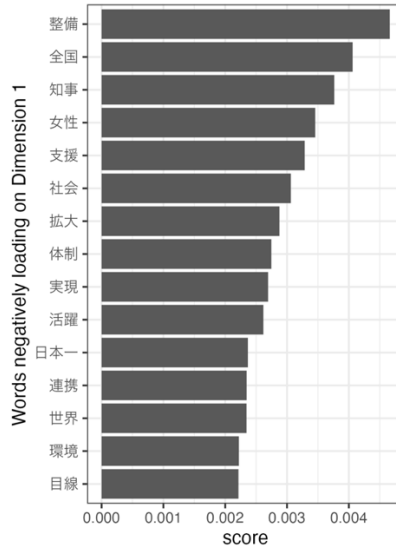
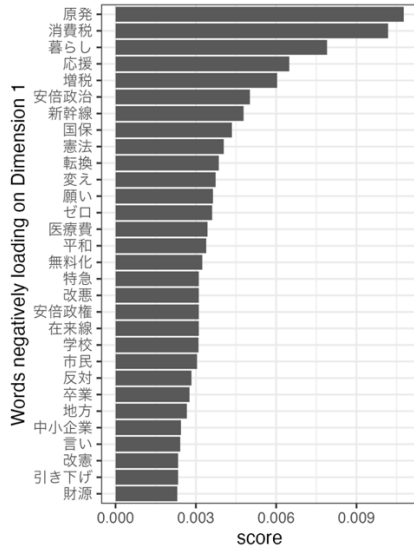
Appendix 2: Correspondence analysis by type of partisan clash



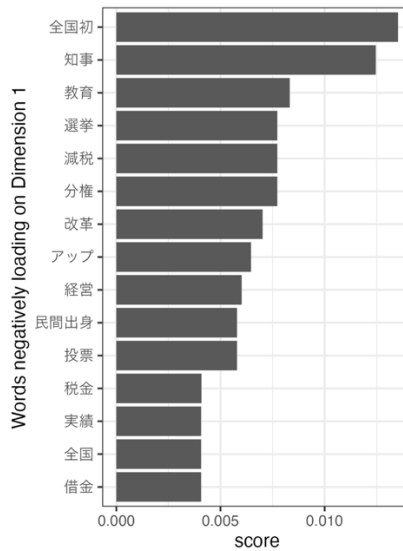
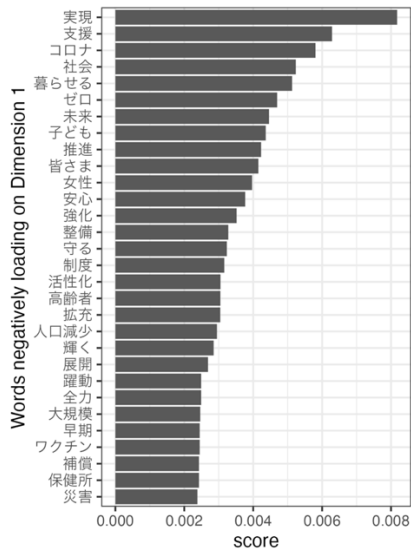
Dim 1 Ainori/JCP

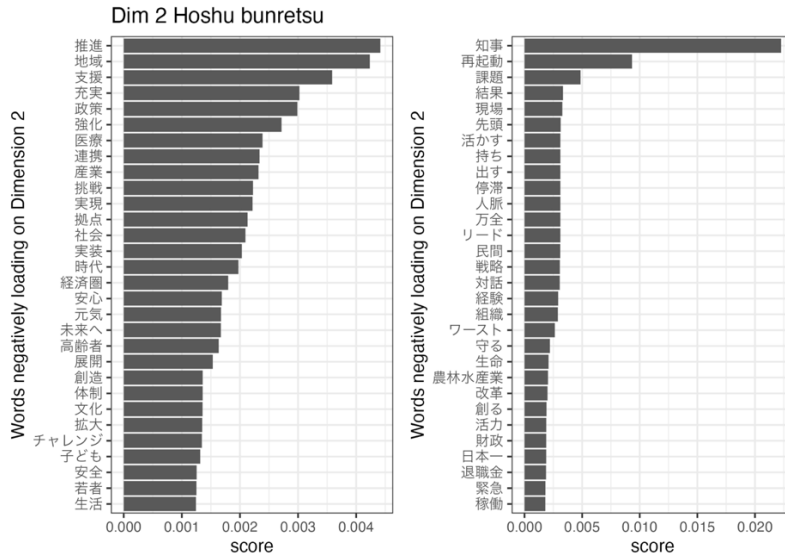


Dim 1 Hoshu bunretsu



Dim 1 Ishin





ⁱ Lijphart identifies seven such “ideological dimensions” in various party systems around the world: “1. socioeconomic 2. religious 3. cultural-ethnic 4. urban-rural 5. regime support 6. foreign policy 7. Postmaterialism.” Of these, his study has found that Japan has 1, 2, 5, and 6 as key dimensions (Lijphart 1981).

ⁱⁱ DID population ratio of 75% or more is urban prefecture > semi-rural > 40% or less is rural prefecture

ⁱⁱⁱ Sen (2019) uses a variant of decision tree models to predict US supreme court rulings.

^{iv} The results of simple LDAs may be hard to understand due to the nature of unsupervised learning.

^v Topic “other 2” seems to center around population growth and decline, and competing for growth/population with other prefectures.

^{vi} We also conducted a similar regression for the impact of distance between candidates on dimension 2 and found no significant impact on electoral turnout.

^{vii} The runner up ratio divides the vote share of the runner up with the winning candidate and is a benchmark for the competitiveness.