



Adaptive parties: party strategic capacity under Japanese SNTV¹

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Abstract

What shapes a party's ability to act strategically? We address this question by examining nomination behavior under Japanese SNTV/MMD, a system offering data that overcome the shortcomings of measurement error and static analysis that plague empirical research on party strategy. We run a series of generalized event counts (GEC) to model the number of candidates each Japanese political camp nominated at the district level in eleven different elections. The number of nominees is a highly strategic decision under SNTV, resulting in a statistical anomaly: an underdispersed event count variable. Based on the GEC results, our principal substantive finding is that parties are not as strategically capable as the existing scholarly literature claims. Even when parties are willing to act as a unified strategic group, informational uncertainty may leave them unable to do so. We also find that, despite factors that should have mitigated against strategic capacity, both ruling and opposition parties in Japan frequently responded to one another by seeking to take advantage of their opponents' strategic errors.

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1. Introduction

Many factors make up a party's optimal electoral strategy—from the issue positions it pushes, to the resources it expends, to the individuals it nominates—and well-chosen strategies are critical to party success. However, it is by no means a given that a party's choice will be the perfect one. Stories abound of parties that choose less than ideal strategies. When, and why, might parties be unable to pursue their optimal strategies?

Although a vast theoretical literature addresses what parties' equilibrium strategies are, empirical studies identifying factors that may inhibit parties' ability to respond to their strategic context are limited. Indeed, the systematic, empirical analysis of party strategy as a whole can be difficult. Measurement error is inherent to most data on party strategy and therefore can raise questions about the validity of analysis based on such data. Moreover, a lack of longitudinal measures of party behavior in the same country (or sub-region) complicates our ability to develop a fuller understanding of when parties will and will not follow equilibrium strategies.

Analysis of party nomination strategy under Japan's now-defunct single-non-transferable-vote, multi-member district (SNTV/MMD) electoral system offers a means to overcome these difficulties. Data on nominating behavior under SNTV/MMD provide an alternative approach to studying party strategy and an enhanced ability to assess a party's strategic capacity. In this paper, we take advantage of unique features of this electoral system and examine the number of candidates a party nominates in a given district. Given its importance to party success under SNTV, the choice of how many candidates to nominate in a district is a critical part of strategy in Japan and therefore provides a valid and reliable measure of parties' strategic choices. Data on the number of nominees under SNTV/MMD in Japan are readily available and subject to markedly less measurement error than many other measures of party strategy. With multiple data points across districts and over time, SNTV permits dynamic analysis of party nomination strategy, which allows us to understand better when parties will respond to the strategic context they face and what will hinder them from doing so.

Our principal finding is that parties are not as strategically capable as the existing literature claims. Even when parties are willing to act as a unified strategic group, informational uncertainty may leave them unable to do so. Conventional wisdom within the comparative parties literature stresses intra-organizational factors as the principal impediments to strategic capacity. Our results confirm elite factionalism as a hindrance to parties' strategic capacity, but we also find this explanation to be insufficient. In many cases where a party (or party bloc) was united in its desire to behave strategically, informational uncertainty hindered its ability to do so. In short, parties' strategic capacity is not merely at the mercy of intra-organizational factors but in fact is shaped extensively by an extra-organizational factor as well.

Three other findings emerge from our analysis. First, while there has been quite a bit of theory regarding parties' strategic responsiveness to opponents, there has been little systematic evidence to indicate that parties do in fact respond to one another when developing their electoral strategies. We show that, despite factors that

should have mitigated strategic capacity, both ruling and opposition parties in Japan did frequently respond to one another by seeking to take advantage of their opponents' strategic errors. Second, this finding also sheds light on an important issue in Japanese politics by demonstrating that, despite factors that should have worked against them, the opposition bloc in Japan was quite capable of acting as a rational and strategic whole (Christensen, 2000). Finally, we find that nominations under the system present a rare and almost completely ignored statistical occurrence: an underdispersed event count variable.

In the next section, we discuss the factors—in particular, intra-organizational constraints and uncertainty about behavior—that shape parties' ability to act strategically, and we argue for giving greater attention to the impact of informational uncertainty and inter-party strategic responsiveness. The subsequent section describes how data from Japanese SNTV/MMD elections provide scholars opportunities to understand party strategy better. The ensuing section presents a model of party strategy and uses this model to set up the hypotheses that undergird our analysis of Japanese politics and party strategy more broadly. The remaining sections present and discuss our results and conclude.

2. Parties' strategic capacity

2.1. *Extra-organizational impediments*

What shapes a party's ability to act strategically? Perhaps the most common simplifying assumption in studies of party strategy is that parties are unitary actors, but scholars are quick to drop this assumption when seeking to understand the failure of parties to develop "rational" strategies. In such cases, scholars typically open the black box by conceptualizing a party's capacity to pursue its optimal strategy as a function of intra-organizational factors, such as collective action problems caused by elite factionalism within the party (Laver and Schofield, 1998, 19–22; Müller and Strøm, 1999, 294–5) or leadership autonomy and flexibility (Janda, 1980, 108–17; Kitschelt, 1994, Chap. 5). While evidence indicates these factors to be important, such analyses may overstate the capacity of parties to be strategic.

In particular, literature on the impact of information suggests that we would do well to consider the role of uncertainty in shaping such capacity. Extensive research indicates that political actors' decision-making in a variety of settings is heavily shaped by their level of certainty regarding likely political behavior and events (Alvarez, 1997; Bartels, 1988; O'Donnell and Schmitter, 1986). Studies of voter choice demonstrate the importance of information as a facilitator and even a requisite for certain strategic behaviors (Downs, 1957; Fey, 1997; Cox, 1997). Even more common, information is frequently a part of (usually formal) models describing equilibrium spatial positioning of parties. Nevertheless, when it comes to trying to explain a party's deviation from its optimal strategy, scholars have focused almost exclus-

ively, as noted above, on intra-party conditions and have overlooked the role of information about external conditions.²

This is unfortunate, as it leaves out what ought to be a critical factor shaping party strategic capacity: Even when party leaders maintain sufficient autonomy and flexibility to push an optimal strategy, there may be entirely too much uncertainty about likely outcomes—such as likely voter responsiveness and opponent strategy—to pursue it. In short, just because a party collectively wishes to act strategically does not mean that it can. Uncertainty may limit a party's ability to do so.

2.2. *Responding to opponents*

In particular, we should expect that uncertainty plays a critical role in determining whether and how a party responds to its opponents. A good deal of party strategy involves an *N*-player sequential-expectations' game, whereby each player acts in response to his expectations about the likely behavior and goals of his opponent. Given the difficulty of completely determining an opponent's capabilities, such expectations are steeped in uncertainty and inaccurate information (Harsanyi, 1967, 1995). Developing a strategy that takes into account the moves of one's opponent (and, for parties, how voters will respond to such moves) is to a large degree dependent upon the reliability and amount of information about what the opponent is doing or may do in the future. For a party, uncertainty shapes capacity to respond to opponents and thereby also shapes overall strategy. In short, uncertainty and responsiveness to one's opponent are intertwined and the level of uncertainty therefore shapes a party's capacity for strategic decision-making.

Despite this, the topic itself of party responsiveness to opponents is a relatively neglected area of study, featuring only a few theoretical innovations and little empirical evidence to back them up.³ This is somewhat surprising since economists have considered such interactive relationships between rival firms for decades (e.g., Bertrand, 1883; Stackelberg, 1934). In political science, Hammond and Humes' (1995) work is the clearest example of work on this topic since they present a sophisticated spatial model of party competition based on the interdependence of party strategies. However, even they refer to their work as an "underdeveloped," first cut at the problem because it does not address the issue of equilibrium strategies and it is not based on empirical results (159). Other examinations of strategic responses to opponent behavior in a spatial model setup are typically formal theory developments or computer simulations (Adams et al., 1999; Greenberg and Shepsle, 1987; Kollman

² Perhaps the closest analysis we are aware of to the effect of information on party strategic choice is formal model work that suggests that the amount of information available to candidates affects the goals (e.g., vote or plurality maximization) they pursue (Aranson et al., 1974).

³ Our discussion here and subsequent analysis refer exclusively to strategic maneuvers among party blocs that have already chosen to compete. While some empirical research on strategic entry does exist (e.g., Cox, 1997), its findings pertain to the unique instances when some potential parties or blocs may decide not to participate at all.

et al., 1998; Kramer, 1977; Shepsle and Cohen, 1991), while the rare empirical inquiries are based on analytical narrative case studies (Kitschelt, 1994).

3. Why study SNTV/MMD?

For an electoral system utilized by a very small number of polities, SNTV/MMD has attracted a seemingly disproportionate amount of scholarly attention.⁴ Under SNTV/MMD, which existed in Japan over the 1947–93 period and much of the prewar era, each voter casts one vote for a candidate and the top M vote-getting candidates win a seat (where M is the District Magnitude). Many political scientists use SNTV as an opportunity to study inter- and intra-party coordination, but few make explicit two additional reasons for SNTV's practical value in understanding politics beyond the relatively few systems that use it. First, SNTV/MMD offers, as pure PR systems are unable to do, an opportunity to test and generalize many theories developed in other (especially single member district) electoral system settings. For example, SNTV provides an ideal setting for Reed's (1990) demonstration of the generalizability of Duverger's Law beyond single member districts. Cox (1994) uses SNTV to demonstrate conditions under which voters will tend toward more sincere or strategic voting.

Second, the system provides electoral system scholars quantitative measures of (1) actual party strategy (the observed number of nominees) and (2) theoretical optimal strategy that vary substantially across districts, parties and elections. This is because electoral success in SNTV/MMD hinges heavily on how many candidates a party nominates in each district.⁵ Under SNTV, there are three types of nomination or strategic "errors," whereby a party wins fewer seats than its total number of votes would have allotted it under a party PR allocation mechanism. A party might overnominate, undernominate, or fail to distribute its vote efficiently among its nominees (Cox and Niou, 1994; Cox and Rosenbluth, 1994; McCubbins and Rosenbluth, 1995; Weiner, 1998). Overnomination occurs when a party runs so many candidates that it disperses its total vote share too thinly. This lowers its number of votes per candidate, thereby leading it to win fewer seats than it would have with a smaller pool of candidates. Undernomination occurs when a party has enough votes to win x seats, but it nominates fewer than x candidates. "Error" resulting from poor vote distribution occurs when a party has enough votes to win x seats, and actually nominates x candidates, but its votes are concentrated in a smaller number of strong candidates.

⁴ See especially Christensen, 2000; Christensen and Johnson, 1995; Cox, 1991, 1994, 1996; Cox and Niou, 1994; Cox and Rosenbluth, 1993, 1994, 1996; Grofman et al., 1999; Kohno, 1997; McCubbins and Rosenbluth, 1995; Reed, 1990; Reed and Bolland, 1999.

⁵ Contrast this with the decision-making in a closed-list PR system, where seats are allocated according to party vote share. In closed-list PR systems, the incentive is to nominate a very large number of candidates (even if greater than the number of seats available), assuming it is legal and costless to do so, who can appeal to as many different voters and societal segments as possible.

The party therefore gains fewer seats than it would have if its weakest candidates had a vote share more closely matching that of its strongest nominees.⁶

The ready-made operationalization of a party's optimal strategy and its chosen strategy under SNTV/MMD therefore provides a rich dataset with observations of party behavior that vary cross-sectionally and longitudinally. This improves on the inherent measurement error problems typically found in studies of party strategy, which tend to rely on party elite or expert surveys (Greene, 2002; Iversen, 1994; Laver and Hunt, 1992), voter party thermometer scores (Dow, 1997; Enelow and Hinich, 1984; Iversen, 1994; Rabinowitz et al., 1991) or analyses of party manifestos (Budge et al., 1987; Gabel and Huber, 2000). Indeed, Kitschelt (1994, 149) points out that “quasi-quantitative evidence from ... expert surveys and the Eurobarometer factor analyses ... have only illustrative value because they rest on strong methodological assumptions that make them too weak to carry the weight of testing the theory”.

It also overcomes the data availability limitations that discourage dynamic analysis of party strategy.⁷ Party strategy and the parties' choices regarding particular strategies are inherently dynamic and to be studied empirically require data that can recognize such dynamics.⁸ Parties learn from their past mistakes, use past events to predict future outcomes, and constantly adjust to changing voter and opponent behavior. Parties may also deviate from equilibrium paths during turbulent times and the equilibrium path itself may change based on the amount of information available. As such, analysis of cross-sectional data may mislead scholars about the overall strategic capacity of parties, especially if the data are from a snapshot in which party behavior is not in equilibrium (Brunner and Liepelt, 1972; Kramer, 1983). Dynamic analysis is especially well suited to identifying factors that condition the ability of parties to behave strategically, since these factors and the resulting behavior vary considerably over time. In this way, scholars can use behavior under SNTV/MMD to understand better the reasons behind entry into and exit from equilibria.

In sum, SNTV/MMD makes the opportunities and constraints shaping party decisions-making particularly tractable objects of study. Because of the unique features of the electoral system, we are able to utilize a simple measure of nomination strategy and exploit this measure to determine the extent to which party strategy—in particular, responsiveness to one's opponents—is shaped by institutional factors such as *District Magnitude* and the behavior of other parties and their candidates. Because elections under Japanese SNTV occurred regularly, we examine the dynam-

⁶ Even though equal division of the vote is not necessary for party success, such equalization is frequently quite important: a party running a number of candidates less than or equal to its optimal number will win a larger number of seats if spreads its vote out evenly.

⁷ Most dynamic studies of party strategy rely heavily on analytical narrative case studies (e.g., Kitschelt, 1994; Meguid, 2002).

⁸ Dynamic approaches help our understanding in a variety of areas. For a few other very useful dynamic studies, see Fey (1997) on strategic voting, Grofman (1996) and Grofman et al. (1996) on sequential (proto-) coalition formation, Laver and Kato (2001) on coalition instability, and Reed (2001) on the $M + 1$ rule.

ics of party adaptation over time and are therefore able to develop an understanding of when party blocs were capable of behaving strategically.

4. A model of party strategy and hypotheses for nomination decisions under SNTV/MMD

4.1. Determinants of party strategy

To generate hypotheses about the number of nominees under Japanese SNTV, we start with an abstract model of party strategy.⁹ Using the example of a two-party system with Party A and Party B, we posit the following general structure to model party A's nomination decisions:

$$N_{it}^A = X_{it}^I \beta_t^I + X_{it}^A \beta_t^A + X_{it}^B \beta_t^B + \varepsilon_{it}^C, \quad (1)$$

where N_{it}^A is the number of candidates that party A nominates in district i in election t , X_{it}^I is a measure of relevant institutional factors extant at election t , β_t^I is the weight party A attaches to these institutional factors, X_{it}^A is a measure of party A's *expected* performance in election t , β_t^A is a weight indicating the degree to which party A heeds its expected performance in determining its election t nominating strategy, X_{it}^B is a measure of the expected strategy of party B (party A's only opponent) in election t , β_t^B is the weight that party A attaches to this strategy, and ε_{it} is a stochastic error term. In most cases, a party would be wise to generate expectations in the current election from results and behavior in the previous election ($X_{i(t-1)}^A$ and $X_{i(t-1)}^B$). For this reason, and for the fact that it is the most convenient and reasonably accurate surrogate measure, we use $t-1$ results as measures of expectations of behavior at t .¹⁰

According to eq. (1), three types of variables structure a party's nominating strategy under SNTV/MMD. The first type of variable (X_{it}^I) and its corresponding parameter (β_t^I) measure the impact of institutions on party nominating behavior. Accuracy in forecasting candidates' likely success declines as *District Magnitude* increases (Cox, 1997). Large districts require a lower percentage of the vote to win a seat, thereby raising both the odds of a relative newcomer's success and uncertainty

⁹ Considerable evidence suggests that the LDP in particular does not do a very good job of manipulating how its votes get allocated among its nominees (e.g., Christensen, 2000). In short, this is not an a priori particularly controllable element of its party strategy, so we measure strategy as the number of nominees, not the allocation of votes among nominees.

¹⁰ Moreover, for our purposes here, even public opinion polls in Japan are not as useful as might be presumed. Complete information about elections in Japan would involve an understanding of how voters will be mobilized by parties to cast ballots for parties other than their own top choice. Much of this mobilization occurs during the actual campaign period, a time when there are substantial legal restrictions on the use of polling in Japan. For this reason, and the fact that, as Curtis (1971) and Park (1998a, 1998b) indicate, Japanese politicians very commonly use prior election results to predict future outcomes, parties' ability to mobilize voters in the previous election is in many ways a better measure of parties' strategic capacity than public opinion polls.

regarding likely victors. Therefore, “the lower threshold of representation constantly tempts candidates to ‘test the waters’” (Cox and Rosenbluth, 1994, 10). Moreover, since it is less clear who is likely to win marginal seats, voters are less likely to defect, for strategic reasons, from potentially weak candidates in large districts (Cox, 1997, 103–106). For this reason, additional candidates may have been more likely to run in high magnitude districts, even without the full blessing of their party.

The second set of variables (X_{it}^A) measures the party’s expected performance in the current election (t). A number of features about its expected performance should be relevant to party A ’s nominating strategy. Most important, the number of nominees should increase with the size of the party’s expected vote share. In addition, the extent to which the party expects its votes to be concentrated in a small share of its candidates should affect its number of nominees. If a party expects its votes to be concentrated in a single star candidate, it should nominate fewer candidates than its vote base would dictate since fewer votes will be available to elect its weaker nominees. Finally, a party with the top vote-getting loser in the previous election will probably run that same candidate again, thereby, all else equal, running more candidates than parties that do not have the top loser. Such candidates have already displayed the electoral strength to nearly win a seat, and in Japan many top losers spent their “retirement” as an extended campaign period, gaining added support in the district.

The third type of variable (X_{it}^B) in eq. (1) encompasses a major theoretical concern of this paper: party responsiveness to rivals. In SNTV/MMD, a party should attempt to take advantage of the nominating mistakes it expects from its rivals by running more candidates. For example, when party B overnominates, party A is given an opportunity—if it runs an additional candidate—to take a seat that party B would have won with a more “optimal” strategy. For this reason, when party A expects its opponent to overnominate, party A should lean toward nominating an extra person.

4.2. *Limits on parties’ capacity to be strategic*

As we discussed above, there are certain conditions that affect parties’ capacity to be strategic. Two types of factors are particularly likely to inhibit parties’ strategic capacity: (1) organizational factors—especially, in the case of Japan’s parties, elite factionalism—which are given substantial attention in the party strategy literature, and (2) informational uncertainty, which is given much less attention.

4.2.1. *Elite factionalism*

The bulk of the hypotheses from above reflect the logic a party would follow if it were to pursue its optimal strategy. Parties, however, are not unitary actors, but their ability to act as such greatly affects the degree to which they adhere to a strategy that is optimal for the entire party and not just some of its candidates or factions. In other words, the ability of party A to overcome potential collective action problems and pursue its Pareto optimal strategy will affect both the degree to which it can act according to its expectations about its own electoral prospects (β_i^A) and the likely strategy and prospects of party B (β_i^B). This issue was especially crucial under Japanese SNTV because of the nature of the party system.

Similar to previous work on postwar Japanese elections (Christensen, 2000; Christensen and Johnson, 1995; Cox, 1996), we analytically divide Japan's parties into two camps: (1) the conservative bloc, comprised of, in particular, the ruling Liberal Democratic Party (LDP), and (2) the multi-party, non-Communist opposition bloc, made up especially by the Japan Socialist Party (JSP), the Democratic Socialist Party (DSP) and, from 1967 onward, the Clean Government Party (CGP).¹¹ As a multi-party conglomerate, the opposition faced collective action problems in pursuing a globally-rational nominating strategy because doing so meant that individual parties had to avoid nominating potentially competitive candidates, or, worse, not nominate anyone in a district. Therefore, the incentives to cooperate were often weak and for much of the postwar era, the non-Communist opposition parties fought with each other as much as they did with the ruling LDP.

To be sure, the conservative bloc was (and remains today) highly factionalized, with candidates competing with co-partisans for office and LDP party leaders lacking complete discretion over which and how many candidates to run. When they did not receive the official endorsement of the party, conservative non-incumbents occasionally ran as independents (and, if victorious, became members of the LDP). Nevertheless, such independents did not run in most districts, and competition across the LDP's factions was weaker than that which existed among opposition parties.

Hypothesis 1. All else equal, therefore, a single party will be likely to coordinate better than a bloc made up of multiple parties and we hypothesize that intra-opposition battles led the opposition as a whole to develop less globally-strategic and less well-coordinated nomination strategies than the LDP (Cox, 1996). That is, we expect to find that the conservative camp on average responded more systematically to its Vote Base, Vote Concentration and the behavior of its opponents. In addition, we hypothesize that District Magnitude played a smaller role in shaping the number of candidates running for the LDP than for the opposition. Even though it lacked mechanisms to strictly control the entry of independent conservative candidates, the LDP may have been more capable than the multi-party opposition of holding back candidates that were merely responding to the greater uncertainty of larger magnitude districts.

Hypothesis 2. At the same time, after the early 1970s parties within the opposition did make concerted efforts in numerous districts to cooperate on a global strategy by agreeing to back specific candidates jointly, rather than compete with one another (Christensen, 2000). We therefore expect to find that the opposition developed more well-coordinated nomination strategies in years of cooperation, especially at its peak from 1979 to 1986.¹² In particular, we expect that the opposition as a unit grew more likely to respond systematically to the behavior of the conservatives in those years.

¹¹ The Japan Communist Party (JCP) was also present, but was not a part of most opposition cooperative arrangements. In addition, the JCP was not a serious threat to the LDP and was unlikely to do serious damage to the non-Communist opposition's overall strength.

¹² As Christensen (2000) notes, increased cooperation occurred for a number of reasons. Centrist parties saw coordination as a means to gaining seats at the LDP's expense, with the hope that the LDP with a minority of the seats would depend on the centrists to form a government. Very striking, cooperation

4.2.2. *Informational uncertainty*

From the perspective of both dynamic analysis and the role of uncertainty in decision-making, it is important to note that all of the parameters in eq. (1) are subscripted by t , indicating that they vary according to the specific conditions surrounding each election. The most important conditions to consider in generating hypotheses are those that influence the degree to which party A perceived its expectations about actual future outcomes to be accurate. As discussed above, work in a number of different areas indicates that information enhances the ability of actors to respond to their strategic environment optimally. Therefore, we expect that a party is more likely to act on its expectations about future and/or uncertain behavior when it has reason to believe they will be accurate.

What conditions might affect the degree of uncertainty under SNTV? The first condition is the expected predictability in the behavior of voters and the opponent. This factor is especially pertinent in determining the circumstances under which party responsiveness to opponents occurs (i.e., understanding the fluctuations in β_t^B). Party A will always want to adapt its strategy in election t to the strategy and electoral support of its opponent in that same election, but it recognizes that doing so requires a forecast about future outcomes. If party A expects volatility in party B 's success and behavior or if it cannot accurately perceive party B 's current strategy, it will be less likely to incorporate these uncertain expectations into its nominating behavior.

Hypothesis 3. In Japan, this situation of perceived uncertainty about future outcomes characterized the period of attempted cooperation within the opposition bloc: We expect that the conservatives were less able to respond systematically to the opposition in the years of such cooperation. While opposition cooperation might be perceived as a more predictable target at which the LDP could take aim, such coordination actually generated a substantial number of unknowns for the ruling party. Many of the electoral pacts between opposition parties were “informal” and secretly negotiated. As a result, the ruling camp was not always certain what exactly was agreed to in the pacts. More problematic, even when the LDP was able to get accurate information about the deals, the party faced a tremendous challenge predicting how successfully the pacts would work. Coordination was fraught with precariousness surrounding the success of pact enforcement and the ability of opposition elites to persuade supporters to vote for cooperation partners (Christensen, 2000). The number of citizens agreeing to cross party lines in response to opposition party leaders' appeals was never clear before election day and could change from election to election.

Hypothesis 4. The continuity in the set of partisan competitors will also affect the perceived certainty of one's expectations. The introduction of new parties makes election maneuvers and future outcomes less predictable by introducing uncertainty over the amount of support for new parties and new parties' capacity to steal votes from existing parties' bases. Because 1960 (DSP) and 1967 (CGP) saw the advent

was also a result of the Socialist-backing unions moving closer to the political center, thereby improving relations with the DSP and CGP.

of new opposition parties in Japan, we hypothesize that the conservative camp had greater difficulty adapting to its opponent in those years and that the opposition had greater difficulty coordinating a global strategy.

Hypothesis 5. A final election-specific condition that might affect the perceived accuracy of expectations is the temporal closeness between elections. A major source of expectations about election t behavior is the previous election, but $t-1$ becomes a less accurate predictor of t if the elections are temporally far apart. Once “information” from an election makes itself available (through the final results), its value for predicting a future election begins to deteriorate steadily as voter preferences change and demographic shifts occur. For this reason, party strategy in Japan should have been especially systematic in 1980, an election that occurred less than a year after the previous election in 1979.

5. Methods and models

5.1. *Dependent variable*

Our first set of multivariate analyses models the conservative camp’s nomination choices in the postwar period. As we note above, LDP party leaders did not have complete control over which and how many candidates to run.¹³ Therefore, we model not the number of LDP candidates in each district but the number of non-incumbent conservative candidates. In other words, the dependent variable is the number of conservative incumbent candidates subtracted from the total number of conservative candidates. In line with previous analyses of party strategy in Japan (Christensen, 2000; Christensen and Johnson, 1995; Cox, 1996; Cox and Rosenbluth, 1994), we define conservative candidates as all LDP and New Liberal Club (NLC)¹⁴ affiliates and electorally viable LDP and NLC independents.¹⁵

Because our dependent variable is the number of candidates running in each district, an event count is the appropriate statistical model. That the number of a party’s nominees reflects a carefully made strategic decision based on SNTV’s unique incentives and perils is not surprising. However, the number of nominees in each district during a given election exhibits a very rare attribute for an event count variable: underdispersion. Underdispersion in event count models is so rare that leading econo-

¹³ We discuss in greater detail below how our analysis holds whether or not the parties acted as conscious, strategic groups.

¹⁴ The NLC was formed in 1976 by a small group of defectors from the LDP. The party spent a number of years in a coalition with the LDP and eventually was reabsorbed back into the larger party.

¹⁵ In our analysis, we do not count weak *independents* who had only an informal affiliation with the LDP or NLC (i.e., weak conservative candidates who were not endorsed) in the dependent variable. “Weak” LDP independents are those who received less than 1/3 of the vote total of the least-voted winner. We assume party leaders knew beforehand that they were too weak to steal many votes from candidates that were more viable. In fact, many ran not to win a seat, but to improve their organization and impress the party with their vote-getting ability for the sake of future elections (Reed, 1986).

metric textbooks (Greene, 1999; Long, 1997) ignore it, and all standard statistical packages are unable to estimate an underdispersed event count model.

Most naturally-occurring event count variables exhibit “positive contagion,” or a process of inertia, whereby an occurrence of the event during time period t increases the probability that it will happen again during t (King, 1989b). On the flip side, the absence of even a single occurrence during t decreases its chances of ever occurring at all. A classic example of positive contagion is the number of democratic transitions in the world per decade. Democratization tends to occur in waves, often aided by the “snowball” or demonstration effect (Huntington, 1991). Looking at the ten decades since 1900, most values in this event count variable would be bunched at or near zero (e.g., 1930s and 1960s), while a few decades (namely the 1940s and 1980s) would have very high values. Democratization, therefore, exhibits positive contagion, so its variance is overdispersed, or larger than that of a variable whose events occur independently.

Because parties in SNTV must toe the fine line between under- and overnomination, we expect the number of nominees to be negatively correlated, exhibiting “negative contagion.” Instead of inertia or snowballing, a larger number of existing nominees actually *decreases* the likelihood of further nominations in the district because parties are leery of overnomination. On the other hand, the potential of no nominees makes parties scramble to nominate at least one candidate to avoid undernominating. The result is a centripetal force on the number of nominees, keeping the variable’s values close to its overall mean. Parties avoid extreme values (both large and small), so the variable has a smaller variance than that of a variable in which the events exhibit no contagion. (Our case of underdispersion is explained more fully in the Appendix A). To handle this special case, we utilize the generalized event count (GEC) (King, 1989a, b), which is sufficiently flexible to handle cases of negative contagion. The presence of underdispersion in our models would indicate that parties and candidates are attempting to perform the strategic balancing act that SNTV/MMD induces.

5.2. Independent variables

We include five independent variables derived from the hypotheses discussed above. One, *District Magnitude*, corresponds to X^I , institutional factors, from above. Three others, *Vote Base*, *Vote Concentration*, and *Top Loser*, correspond to X^A , expectations about one’s own likely success. The final variable deals with the part of strategy with which we are most concerned in this paper: the degree to which a party is responsive to the behavior of its opponent. We call this variable *Opposition Waste*, which corresponds to X^B , expectations about the strategic capability and success of one’s opponent.

For the conservatives, we expect the most influential independent variable to be *Conservative Vote Base*.¹⁶ To guarantee herself a seat, a single candidate had to

¹⁶ Indeed, it only makes sense to consider the other variables once we control for a party’s vote base.

receive a “quota,” which is equal to the total votes cast for all candidates divided by the sum of the *District Magnitude* plus one.¹⁷ That is, the quota in district i for election t is the following:

$$Quota_{it} = \frac{V_{it}}{M_{it} + 1}, \quad (2)$$

where V denotes the total number of Votes cast in the district and M is the *District Magnitude*. Therefore, if its vote share were spread evenly among its candidates (and it expected its opponents to be error-free), a rational party would run a total number of candidates equal to the number of quotas it was likely to receive. Since this variable is a function of $M + 1$, the sum of all party quotas in a district will equal the *District Magnitude* plus one (Reed, 1990, 339).

Since the dependent variable only counts non-incumbent candidates, the measure of *Vote Base* must account for the number of guaranteed winners that conservative party leaders expected to receive in their district beyond the number of incumbents who automatically ran. As mentioned above, the best source of information that Japanese party leaders had was from previous elections. Therefore, the independent variable is the number of quotas the conservatives could expect to receive (based on the previous election) minus the number of incumbent candidates:

$$Conservative\ Vote\ Base = \frac{V_{i(t-1)}^C}{[V_{i(t-1)}/(M_{it} + 1)]} - N_{it}^{Cinc}, \quad (3)$$

where V^C is the total number of Votes cast in the district for all Conservative candidates and N^{Cinc} is the Number of Conservative incumbent candidates. As the expected *Conservative Vote Base* increased, so did the probable number of winning candidates for the conservatives. Therefore, we expect a positive sign on the coefficient.

This variable would be the sole measure of a party's optimal nomination strategy only under two restrictive conditions. First, the party had to be able to spread out its vote share rather equally among its candidates, maximizing the chance that each candidate received the quota. The model therefore contains a *Vote Concentration* variable that measures the degree to which the party's votes were concentrated in its strongest candidate. A larger number of votes concentrated in a single candidate indicates that other candidates in the party had available to them fewer votes than might be expected given the party's total vote base.¹⁸ If votes were equally distrib-

¹⁷ This quota is by no means necessary to win a seat (in fact most winning candidates receive less than a full quota of votes), but it is the minimum needed to guarantee a candidate victory. Therefore, it is a useful heuristic for the general number of votes for which candidates and parties need to strive.

¹⁸ Cox and Niou (1994) have suggested the Hirschman–Herfindahl (HH) measure of fragmentation as a useful measure of vote dispersion among candidates. However, using HH in our models would be problematic because it is the inverse of the effective number of candidates (treating candidates as parties and applying the Laakso and Taagepera formula). It therefore has a high negative correlation with the number of candidates running. Including it as an independent variable in a model predicting number of nominees is similar to including the inverse of the dependent variable on the right hand side, introducing extensive endogeneity and nonsensical estimates. For this reason, we introduce a different measure of *Vote Concentration*.

uted among all N^C conservative candidates, each one would receive $1/N^C$ of the entire conservative camp's votes. The difference between $1/N^C$ and the top conservative vote getter's share, therefore, is the share of the party's vote that he or she is "stealing" from other candidates. We weight this raw difference by the inverse of the number of that party's nominees because a given share of "stolen" votes becomes less detrimental to each remaining candidate as the stolen votes are distributed among an increasing number of candidates. For example, a stolen vote share of 0.2 usurps 1/5th of the party's votes from a fellow partisan for a two-nominee party, but only 1/20th from each of the remaining candidates in a five-nominee party. Dividing by the number of nominees accounts for the weaker negative impact of the same vote-stealing share, and therefore the greater incentive to nominate another candidate, in the five-nominee case:

$$\text{Vote Concentration} = \frac{\left[\frac{V_{i(t-1)}^{C1}}{V_{i(t-1)}^C} - \frac{1}{N_{i(t-1)}^C} \right]}{N_{i(t-1)}^C}, \quad (4)$$

where V^{C1} is the number of Votes the top Conservative received, and the other variables are defined above.¹⁹ We expect the coefficient's sign to be negative.²⁰

The second condition under which a party would rely solely on its vote base for making its nomination decision was if its opponents also ran their optimal number. However, since parties made errors—especially parties that did not cleanly coordinate—competitors may have taken into account the likely failures of their opponents. To test for this, we created a measure of the extent to which the opposition wasted its votes. Since the conservative candidates and leaders undoubtedly tried to take advantage of all of their opponents' wasted votes, we include the entire opposition (i.e., not just the non-Communists) in calculating this variable. The variable *Opposition Waste* is computed by subtracting the opposition's total *Vote Base* in the preceding election (based on the district's quota—see above) from the effective number of candidates it did run, as measured by the Laakso and Taagepera (1979) index:

$$\text{Opposition Waste} = \left| EN_{i(t-1)}^O - \frac{V_{i(t-1)}^O}{\text{Quota}_{i(t-1)}} \right|, \quad (5)$$

where EN^O is the *Effective Number of Opposition* candidates and V^O is the number of Votes received by the entire *Opposition* camp. We use the effective number of candidates instead of the raw number of candidates to downplay the impact of weak candidates, who did not contribute to nomination error because they only "stole" a negligible number of votes from viable candidates. We compute the absolute value of this variable because the further it deviates from zero (regardless of direction), the greater the size of the opposition's error and wasted votes (although the opposition as

¹⁹ In districts with only one conservative candidate, we assigned that election's mean value.

²⁰ We multiplied this variable by 10 in the GEC models. This arbitrary adjustment simply eased estimation by making the measure of *Vote Concentration* of similar range and magnitude as the other variables.

a whole rarely undernominated). In either case, the conservatives have an opportunity to win extra seats and, hence, an incentive to run extra candidates. Therefore, we expect the coefficient's sign to be positive in years when the conservatives were fairly certain of the likely nominating behavior of the opposition.²¹

We include two other independent variables. *Conservative Top Loser* is a dichotomous variable indicating whether a conservative was the top vote-getting loser in the preceding election. We also include the *District Magnitude*. Given the hypotheses discussed above, we expect a positive sign on both of these coefficients.

It is important to note that these patterns of party behavior should hold whether the parties did in fact act as conscious, strategic groups or even if parties and their candidates responded more according to a less conscious balancing process. Although a well-disciplined party will be more likely than a bloc of non-cooperating parties or a group of unaffiliated candidates to act as a strategic whole, the patterns of nomination behavior hypothesized above should still apply to these latter cases. A wholly “selfish” or independent candidate will still be more likely to run when she expects her bloc to have a large vote share or her opponent's bloc to make major errors. She will also be more likely to run if she was the top-loser in the previous election or ran in a district with a larger number of seats. Finally, even if her bloc has a large number of votes seemingly available to it, she will be less likely to run if these votes are quite concentrated in a single candidate (from whom these votes will probably be difficult to wrest).

Finally, as eq. (1) asserts, we expect that party strategy was dynamic (see Reed and Bolland, 1999) and changed with new circumstances in each election. Therefore, unlike other analyses (e.g., Cox and Rosenbluth, 1994) that pool the entire postwar era into one large data set, we examine each year separately to maintain the parameter heterogeneity necessary to assess the hypotheses about election-specific conditions and the factors that shape strategic capability.

6. Results for the conservatives

We use these variables to analyze the eleven HR elections from 1960 to 1990.²² The results from eleven GECs are shown in Table 1.²³ To reiterate, the dependent

²¹ Cox and Niou (1994) and Cox and Rosenbluth (1994) utilize MAXS, the number of seats a party could have won in a district had it perfectly divided its votes among the optimal number of candidates, assuming that its opponents' votes did not change. Essentially, MAXS combines our *Vote Base* and *Opposition Waste* variables, but we choose our variables for two reasons. First, MAXS can be misleading in that it may give the same score to two parties with substantially different numbers of votes (Christensen, 2000). Second and more important, we seek to tease out the separate effects of *Vote Base* and opponents' *Waste* to understand better the various components shaping party strategy.

²² The data come from Steven Reed (1992) and the associated, machine-readable version, covering the 1958–1990 elections, which is available at the Lijphart Elections Archive at <http://dodgson.ucsd.edu/lij>. Because most of our variables are lagged to take into account results from the previous election, we do not run a GEC for 1958, the first election year in the data set.

²³ The GEC estimates were derived using a Stata.do file written by John Squier.

Table 1
GEC models of the number of non-incumbent conservative nominations

Cooperation	None		Partial		Full		Partial		Full		
	1960	1963	1967	1969	1972	1976	1979	1980	1983	1986	1990
Year	1960	1963	1967	1969	1972	1976	1979	1980	1983	1986	1990
Relevant Event	DSP Advert		CGP Advert					Snap Election	1980 Boom	Adjustment	
<i>Conservative</i>	0.726** (0.117)	0.544** (0.120)	0.777** (0.096)	0.784** (0.134)	1.055** (0.154)	0.800** (0.105)	0.748** (0.137)	0.639** (0.078)	1.058** (0.157)	0.618** (0.096)	0.976** (0.088)
<i>Vote Base_{t-1}</i>	-0.645** (0.393)	-0.185 (0.382)	-0.163 (0.395)	-0.591* (0.436)	0.295 (0.613)	-0.347 (0.332)	-0.418* (0.300)	-0.878** (0.345)	-0.257 (0.362)	-1.020** (0.293)	-0.137 (.283)
<i>Vote</i>											
<i>Concentration_{t-1}</i>											
Opposition	0.360** (0.145)	0.278* (0.181)	-0.224 (0.199)	0.345** (0.145)	0.333** (0.183)	0.475** (0.157)	0.123 (0.142)	0.452** (0.146)	-0.488 (0.304)	-0.249 (0.179)	0.273* (0.197)
Waste _{t-1}											
<i>District</i>	0.041 (0.068)	0.079 (0.068)	0.078 (0.092)	0.025 (0.094)	0.047 (0.117)	0.204** (0.089)	0.032 (0.084)	-0.166 (0.087)	0.120 (0.121)	0.027 (0.085)	0.022 (0.076)
<i>Magnitude</i>	0.193** (0.110)	0.564** (0.155)	0.290** (0.153)	0.418** (0.189)	0.084 (0.216)	0.162 (0.177)	0.151 (0.154)	0.209** (0.113)	-0.274 (0.237)	0.256** (0.122)	-0.153 (0.140)
<i>Conservative Top</i>	-0.911** (0.168)	-1.277** (0.317)	-1.142** (0.413)	-1.191** (0.461)	-1.548** (0.531)	-1.842** (0.464)	-0.751** (0.318)	-0.398 (0.392)	-1.083** (0.507)	-0.437** (0.366)	-1.215** (0.323)
<i>Loser_{t-1}</i>	0.387** (0.101)	0.528** (0.105)	0.433** (0.078)	0.582** (0.093)	0.768** (0.081)	0.592** (0.117)	0.563** (0.065)	0.429** (0.059)	0.872** (0.086)	0.524** (0.060)	0.645** (0.030)
Constant	117	117	117	122	123	123	129	129	129	129	129
σ^2											
N	117	117	117	122	123	123	129	129	129	129	129

Entries are generalized event count (GEC) coefficients and standard errors in parentheses

* $p < 0.10$

** $p < 0.05$, all tests are one-tailed

variable is the total number of non-incumbent conservative candidates (at the district level).

Of special note in Table 1 is the value of the dispersion parameter, σ^2 . This ancillary parameter varies from 0 to infinity and indicates the nature of the error variance. When $0 < \sigma^2 < 1$, the conditional variance exhibits underdispersion. When $\sigma^2 = 1$, the error variance exhibits Poisson dispersion, and when $\sigma^2 > 1$, the model contains overdispersion. The fact that σ^2 is statistically significant and less than 1 (and greatly so) in all of the models indicates that, although a rare empirical occurrence, negative contagion among events did characterize the conservatives' nomination process under Japanese SNTV. This is an indication of the bloc's attention to avoiding both under- and overnomination.

Besides this, the most consistent finding is the importance of *Vote Base*, which demonstrates that the conservatives always paid attention to their expected aggregate vote share. As expected, *District Magnitude* is positive in nearly every election, supporting the argument that conservative candidates were more likely—even after taking into account other factors such as *Vote Base*—to run in high magnitude districts. However, the fact that the variable is significant in only one year also suggests that, as expected, the LDP leadership was largely able to keep the trend from getting out of control. The presence of a *Conservative Top Loser* is in the expected direction in nine years and significant in six. The coefficient on *Vote Concentration* is all but once in the expected direction and statistically significant five times, indicating that when they expected their vote share to be heavily concentrated in one candidate, the conservatives typically ran fewer candidates.

As hypothesized, when it expected opposition strategies to remain similar to those they followed in the past, the conservative bloc frequently tried to take advantage of the nomination errors of its opponents. The coefficients on *Opposition Waste* are in the expected direction in eight of the eleven elections and statistically significant in seven. Moreover, it is particularly notable as to which years *Opposition Waste* had an impact on the nomination strategy of the conservatives. *Opposition Waste* is statistically significant at the 0.1 level in 1963 and 1990, and at the 0.05 level in 1960, 1969, 1972, 1976, and 1980.

6.1. Temporal variation in results for the conservatives

Party behavior and success were relatively predictable throughout the bulk of the 1960s. Because few districts contained candidates from all of Japan's political parties, the conservatives believed they could anticipate opposition behavior, which typically followed patterns similar to those pursued in the previous election. Relatively few opposition parties competed with each other in each district, and they had stable bases of support. In contrast, elections in the late 1960s and 70s featured higher degrees of competition among opposition parties and greater volatility in voter allegiances.

During this time, two new opposition parties entered the fray. Contrary to Hypothesis 4, the conservatives used 1958 opposition behavior to forecast behavior in 1960 despite the advent of the DSP in 1960. This is best explained by the fact that the

DSP's leading candidates in 1960 were mainly incumbents and former candidates who defected from the JSP. For this reason, the LDP probably expected opposition behavior and performance in 1960 to be similar to what it was in 1958, since many DSP candidates had a history from that previous election.²⁴ On the other hand, and more in line with Hypothesis 4, opposition error was non-significant in 1967, the first HR election for the CGP and its novice candidates. Their popularity was highly unpredictable and, as a result, the conservatives no doubt felt less confident about relying on 1963 opposition strategy and success to forecast 1967 behavior. However, beginning in 1969, the CGP's track record and base of voter support were better known and the conservatives again responded to past opposition behavior.

By the early 1970s, the opposition camp began experimenting with coordinating global strategies. In Table 1, we divide the elections into three categories provided by Christensen (2000)—no cooperation, partial cooperation, and full cooperation—that indicate the extent to which the opposition parties worked together as a group in each election. As predicted in Hypothesis 3 and demonstrated by the non-significance of the *Opposition Waste* variable in the full cooperation period, the existence of opposition cooperation decreased the confidence the conservatives had in using previous behavior and results to predict future outcomes. Formal opposition cooperation began in 1972 and 1976 in fewer than 15 districts, so uncertainty held by the conservatives in such a small number of districts was unlikely to affect the results of the event count models. However, opposition cooperation expanded significantly in 1979, roughly doubling the number of districts with formal electoral pacts, and it moved to even higher levels in the three succeeding elections (Christensen, 2000). As a result, for the reasons discussed above, opposition party strategy and voter support were far less predictable, making it difficult for the conservatives to develop a clear, systematic strategy in response. The obvious exception was the 1980 election, which occurred roughly half a year after the previous election, making opposition party strategy and voter response far more predictable (Hypothesis 5).

Quite notable, while the LDP reduced its strategic focus on *Opposition Waste*, the conservatives were still able to behave adaptively. In lieu of a strategy that was consistently responsive to opposition behavior, the conservatives shifted their focus to their own candidates. While in other periods, *Conservative Vote Concentration* was rarely significant, the variable was significant in three out of the four full-cooperation period elections.²⁵ Nevertheless, once opposition coordination dropped sharply in 1990, the LDP once again responded fairly consistently to opposition

²⁴ In reality, the DSP brought in quite a few more new candidates in 1960 than the CGP did in 1967. However, unlike the CGP's candidates who, through their Buddhist organizations, clearly had a base of support already set up, most new DSP candidates gave opponents little reason to worry. Indeed, measuring electoral success as closeness to the "bottom winner" in each district, the DSP's new candidates were markedly weaker than the average for all non-incumbents in 1960, while the CGP's candidates were stronger than the average for all candidates in 1967.

²⁵ Note that, in the full-cooperation period, only in 1983 is *Vote Concentration* non-significant. This is no doubt due to the adjustments made in 1983 that we discuss in the next paragraph.

behavior—and less to its own vote concentration—in making its own strategic decisions.²⁶

Finally, the election of 1983 merits special attention because it does not conform to any of our hypotheses. The *Opposition Waste* variable is strongly *negative* in 1983, indicating that the conservatives nominated fewer candidates in districts where the opposition made a high degree of errors in 1980. Because of an outpouring of support following the death of the LDP prime minister, the conservative camp received an unexpectedly huge vote increase in 1980 and, even though opposition coordination reached its peak that year, the opposition lost a large number of seats. For this reason, the sudden vote surge for the LDP gave the appearance of opposition error even in many districts where the opposition ran a seemingly “rational” number of candidates (Weiner, 1998). Moreover, 1980 was a double election, in which lower and upper house elections were held simultaneously. Double elections impeded inter-party coordination as parties, even in the same region, sought to cooperate in one election while competing in a different race. Recognizing the short-term nature of 1980 opposition errors, the LDP in 1983 realized that once vote totals returned to their “normal” levels, the opposition would be able to win back such seats. The conservatives therefore avoided running additional candidates in districts with such “temporary” high error rates. Similarly, 1983 is the only year in the full cooperation period in which *Vote Concentration* is non-significant and the *Conservative Top Loser* variable is negative. Because of the anomalous results of 1980, the conservatives lacked confidence in using results from this election as an indicator of outcomes in 1983.²⁷

²⁶ A seemingly obvious empirical test of opposition coordination’s impact on the conservatives’ ability to respond to its opponents is to estimate two separate sets of parameters for cooperation districts and non-cooperation districts. Unfortunately, this is not possible because much of the opposition cooperation was at the informal level, making it impossible to know in which districts it occurred.

²⁷ It might be argued that our findings are simply dependent upon the presence (or absence) of an exogenous shock. That is, given that our independent variables are based on previous election results, non-significant results may simply be a result of an exogenous shock that makes $t-1$ a poor surrogate for the information available to party leaders at time t . It is conceivable that this is the case for 1967 and 1983 models, when the addition of a new party and the surprising 1980 election result were shocks of such a magnitude that they reduced the quality of the $t-1$ -based measure. At the same time, it is difficult to believe that this would be the case for any of our other models. With the only other exception of 1979 (which we are able to explain), the opponent waste variable is significant for either the conservatives or the opposition in every single year. If the previous election results work as a surrogate for one party, we can reject the argument that an exogenous shock made useless the $t-1$ measure. This is particularly noteworthy in 1986, when it might be argued that electoral volatility hindered leaders’ ability to use 1983 results to plan for 1986. However, as we show below, opponent waste is statistically significant in the opposition model. Moreover, *Vote Concentration* is significant in the 1986 model for the conservatives. The conservatives were using previous electoral results in 1986, but it appears that they were hindered in their ability to respond to opposition behavior. In sum, a very large exogenous shock could conceivably hinder the viability of our $t-1$ measures, but in reality such shocks had relatively little effect on the main points of our analysis.

7. Results for the opposition

To test the opposition's ability to act as a coherent, strategic bloc, we model, as Christensen (Christensen, 2000; Christensen and Johnson, 1995) and Cox (Cox, 1996, 1997) do, the nomination strategy of the entire camp minus the JCP. The JCP nominated a candidate in nearly every district and rarely acted in the strategic interests of the entire opposition. As with the conservative models, we want the dependent variable to capture the discretionary candidate and party decision-making process, so we subtract from the total number of opposition candidates any nominees who were chosen "automatically." This includes incumbents, who freely ran for re-election, and one JSP candidate per district, since the party nearly always ran at least one candidate in every district. Therefore, the dependent variable is the following:

$$DC_{it}^O = N_{it}^O - N_{it}^{Oinc} - (1 - D_{it}^{JSPinc}), \quad (6)$$

where DC^O is the number of Discretionary Candidates, N^O is the Number of Opposition candidates, N^{Oinc} is the Number of Opposition incumbents running, and $D^{JSPinc} = 1$ if there is a JSP incumbent candidate and 0 otherwise.²⁸ The specification of the opposition models is the same as that in the conservative models. They contain the same five independent variables calculated according to our definition of the opposition camp and its non-automatic candidates. The results are in Table 2.

Because the opposition, unlike its conservative rival, was a multi-party conglomerate, we expected (Hypothesis 1) the nominating processes between the two camps to diverge. This is the case for some of the independent variables in certain years. *Vote Concentration* is in the expected negative direction for the opposition in only four years, and is statistically significant in just one year. Just as it is for the conservatives, coefficients for *District Magnitude* are consistently positive for the opposition. However, in 10 out of the 11 years, the variable is significant, a sharp contrast to the single year it was positive and significant for the conservatives. These differences between the conservative and opposition blocs reflect our expectation in Hypothesis 1, that the opposition bloc was made up of different parties, making it more difficult to restrain parties and candidates from running in large districts and in those with one strong opposition candidate.

Despite these differences, the similarities to the results of the conservative bloc are more striking. Every model in Table 2 has a dispersion parameter that indicates a high degree of negative contagion among events in opposition nomination behavior ($0 < \sigma^2 < 1$). As was the case with the conservatives, the opposition camp shied away from over- and undernominating. The persistent statistical significance of the *Vote Base* variable is a clear similarity to the conservative models. Despite the collective action problem involved in coordinating multiple opposition parties, overall opposition nomination patterns were clearly linked to its total vote base. The coef-

²⁸ By "Opposition," we refer to the JSP, CGP, DSP, SDL and independents informally affiliated with them. As in the conservatives' case, we exclude weak, or electorally non-viable independents. On eight occasions, in districts where the JSP did not run a candidate, eq. (6) yields a negative value. These cases are coded to 0.

Table 2
GEC models of the number of discretionary opposition nominations

Cooperation	None			Partial			Full			Partial		
	1960	1963	1967	1969	1972	1976	1979	1980	1983	1986	1990	
Year	1960	1963	1967	1969	1972	1976	1979	1980	1983	1986	1990	
Relevant Event	DSP Advert		CGP Advert					Snap Election	1980 Boom	Adjustment		
<i>Opposition Vote</i>	0.751** (0.215)	1.271** (0.264)	0.758** (0.135)	0.842** (0.173)	0.831** (0.086)	0.777** (0.175)	1.317** (0.236)	2.979** (0.477)	1.000** (0.240)	1.581** (0.356)	1.274** (0.195)	
<i>Base_{t-1}</i>	0.032	0.052	-0.035	0.191	0.531	-0.231** (0.105)	-0.519	1.046	-0.240	0.642	0.752	
<i>Opposition Vote Concentration_{t-1}</i>	(0.201)	(0.237)	(0.266)	(0.259)	(0.431)		(0.595)	(1.211)	(0.661)	(0.671)	(0.634)	
<i>Conservative Waste_{t-1}</i>	0.296** (0.098)	0.330** (0.207)	0.056 (0.182)	0.545** (0.137)	-0.127 (0.244)	0.071 (0.108)	0.171 (0.253)	1.651** (0.465)	0.128 (0.494)	0.460** (0.306)	-0.619 (0.476)	
<i>District Magnitude</i>	0.105 (0.090)	0.107* (0.060)	0.256** (0.086)	0.113** (0.057)	0.468** (0.138)	0.139* (0.108)	0.260* (0.184)	0.363* (0.284)	0.194* (0.147)	0.320* (0.223)	0.330** (0.138)	
<i>Opposition Top Loser_{t-1}</i>	0.310** (0.167)	0.024 (0.148)	-0.202 (0.180)	0.083 (0.133)	0.192 (0.258)	-0.004 (0.151)	0.468** (0.236)	0.874** (0.362)	0.287* (0.229)	0.524* (0.355)	0.222 (0.185)	
Constant	-0.995** (0.402)	-1.573** (0.337)	-1.285 (0.436)	-1.107** (0.222)	-3.023** (0.754)	-0.967** (0.421)	-2.328** (0.780)	-5.522** (1.273)	-2.038** (0.674)	-3.334** (1.026)	-2.897** (0.618)	
σ^2	0.370** (0.089)	0.402** (0.074)	0.568** (0.086)	0.508** (0.012)	0.534** (0.071)	0.609** (0.014)	0.685** (0.100)	0.206** (0.032)	0.648** (0.085)	0.827** (0.102)	0.379** (0.040)	
N	117	117	117	122	123	123	129	129	129	129	129	

Entries are generalized event count (GEC) coefficients and standard errors in parentheses

* $p < 0.10$

** $p < 0.05$, all tests are one-tailed

ficients on this variable are always statistically significant and usually of a magnitude similar to the conservatives' corresponding coefficients.²⁹

7.1. Temporal variation in the results for the opposition

Because we expected the opposition, before it began coordinating, to demonstrate less strategic capacity in responding to conservative behavior (Hypothesis 1), the levels of statistical significance for the *Conservative Waste* variables are surprising. Despite its composition as a group of different parties, the opposition clearly responded to expectations about the strategic failures and successes of the conservatives in 1960, 1963 and 1969. This is all the more impressive in 1969, when, given the addition of the CGP in 1967, the non-Communist opposition contained three major parties competing with one another. This lends substantial support to Christensen's (2000) assertion that the entire opposition was able to act as a strategic whole.

As it did with the conservatives, the entrance of the CGP in 1967 (but not the DSP in 1960) seemed to disrupt normal nominating behavior patterns by making it more difficult for the opposition to respond to its opponent (thereby supporting the CGP half of Hypothesis 4). The significance of *Conservative Waste* in 1960 results from the fact that, as already mentioned, the bulk of the strong candidates from the DSP were merely incumbents who had split off from the JSP, thereby leading to relatively little de facto change in the system that year. In contrast, the CGP introduced greater uncertainty in terms of both who its candidates would be and what sort of voter support they would receive.

After the 1960s, we expected cooperation to increase the opposition's ability to pursue globally-strategic behavior. We expected non-significance of the *Conservative Waste* variables in the late 1960s (Hypothesis 1) and significance in the years of cooperation, especially beginning in 1979 (Hypothesis 2). Despite the fact that the results of the event count models are somewhat different from our expectations, a closer look at the evidence suggests that cooperation did lead to greater opposition adaptability. Until the late 1960s/early 1970s, competition between the opposition parties was fairly restrained, so opposition party strategy during the 1960s typically did not involve complicated coordination (Christensen, 2000). Parties stuck to their areas of strength, so the opposition was able to respond systematically to the conservatives, thereby revealing a result contrary to our expectation in Hypothesis 1.

That said, increased industrialization and urbanization in the 1960s and early 1970s eroded the LDP's and JSP's bases of support and increased the popularity of other opposition parties (Christensen, 2000; Kohno, 1997; Murakami et al., 1977). When competition among opposition parties intensified in the early 1970s, opposition party

²⁹ Although we cannot do any formal statistical tests because of the different dependent variables, a general comparison between the coefficients in Tables 1 and 2 is possible because the variances of most of the corresponding variables across the two camps are similar. For any given election, the variances of the two (Opposition and Conservative) dependent variables are nearly equal, and the variances on any two corresponding independent variables (e.g., *Conservative* and *Opposition Vote Base*) are also similar. Therefore, we can perform an "eyeball test" to compare the nomination logic of the two opposing camps.

responsiveness to conservative strategy grew less consistent. For ad hoc reasons, competition grew in some districts, increasing the number of opposition candidates in such districts, but in others the opposition parties coordinated around a smaller number of candidates.³⁰ As a result, opposition party responsiveness to the conservatives fell to non-significance in every election in the partial cooperation periods.

In contrast, the advent of full cooperation appears to have led the opposition, as a whole, to a greater capacity for coherent and systematic behavior, providing support for Hypothesis 2. The coefficients on the *Conservative Vote Base* variables did not change markedly between the different cooperation periods. In contrast, the size of the coefficients on *Opposition Vote Base* increased dramatically as the opposition began cooperating in a large number of districts in 1979. Moreover, the *Top Loser* variable—which was non-significant in every other year except for 1960—becomes strongly positive and significant in every year of full cooperation, indicating a greater emphasis on running non-incumbents with a proven track record.

Regarding the opposition bloc's responsiveness to its opponent, *Conservative Waste* is in the expected (positive) direction in every election in the full cooperation period, a pattern that does not hold throughout the partial-cooperation period. Moreover, the two cases of *Conservative Waste* non-significance during this period are easily explained. Non-significance in 1983 is due to the adjustments being made in that election for the 1980 "Boom," while non-significance in 1979 is no doubt due to uncertainty in two areas. First, the LDP was likely to alter strategy somewhat in 1979 because of its own confusion surrounding the opposition's new cooperative pacts.³¹ Second, in 1979 the pacts were new and, therefore, less predictable.

Finally, the very short amount of time that elapsed between the 1979 and 1980 elections appeared to have a very substantial effect on certainty and, therefore, party strategy as well (Hypothesis 5). The coefficients on *Opposition Vote Base* and *Conservative Waste* are immense in 1980. However, the deviation in size of these coefficients from other years is far greater for the opposition than for the conservatives (see Table 1). Therefore, temporal closeness does not appear to be a sufficient reason for the massive increase in the level of systematic party responsiveness by the opposition in 1980. Instead, as hypothesized, greater strategic responsiveness was a result of both temporal closeness (Hypothesis 5) and high levels of opposition cooperation (Hypothesis 2), lending support to the importance of both a reduction in elite factionalism and informational uncertainty.³²

³⁰ During the partial cooperation period, in districts of great intra-opposition competition, each party within the opposition had to adjust its strategy not only to conservative behavior but also to the increasing threat of other opposition parties. In contrast, the conservatives merely needed to continue considering the behavior of the opposition as a bloc.

³¹ In this way, the opposition may have been basing its projection of LDP behavior in part on the predictability of its own (opposition) behavior.

³² It might be argued that the return to significance of *Opposition Waste* in 1980 is an artifact of our operationalization and not due to greater information available because of the closeness of election $t-1$ to t . That is, the 1979 election ($t-1$) may reflect the knowledge parties had around the time of the 1980 (t) election—knowledge they would have had close to the election even without an election held so closely before it. We reject this argument for three reasons. First, using results from $t-1$ works well

8. Conclusion

Under SNTV in Japan parties were adaptive and responsive to one another when they could be. Parties were often unable to respond to their opponents when future outcomes and opponent behavior were uncertain. This finding indicates that the existing literature on party strategy is overstating the capacity of parties to be responsive. Typically, the focus of studies on parties' ability to generate rational strategy is on intra-organizational elements. Our analysis here does support this idea, as Japan's opposition was much more strategically capable in periods where it was more unified. However, such an explanation is insufficient, overlooking the fact that informational certainty and the confidence a party has in predicting the behavior of its opponents are also critical factors underlying its decision to respond to its competitors. Party strategy is often an exercise in forecasting, with all the uncertainty this entails. Parties want to respond to their opponents' behavior, but do so only when they believe they can estimate with relative certainty what their opponents' moves will be. Because of this, parties, like firms in economic theory, are averse to uncertainty because it hinders their ability to pursue optimal strategies (Bertrand, 1883; Spulber, 1995).

Our results confirm a leading, yet still-under-debate, interpretation of Japanese political history. We cannot address here the debate over which party bloc was *more* efficient (Cox, 1996, 1997; Christensen, 2000). However, our results support Christensen's claim that, despite a number of seemingly substantial obstacles under Japanese SNTV/MMD, the opposition was quite capable of acting rationally, systematically, and strategically as an entire bloc—even when the opposition parties were not actively seeking to coordinate with one another. This capability was quite clear in the 1960s when the competitive context was relatively simple. Moreover, the opposition's ability to behave in a collectively strategic manner in the 1980s supports Christensen's contention that the opposition was particularly impressive in its strategic capacity when the parties within it cooperated.

In this way, our findings offer a step forward in understanding the conditions under which parties can and will be strategically adaptive and responsive to a variety of factors, but especially to the behavior of their opponents. We are confident that scholars will continue to find areas beyond the number of nominees through which

in predicting the nomination patterns for the conservatives in five out of the first six elections under analysis. Only with full opposition cooperation, and the accompanying uncertainty surrounding the opposition's nomination strategy and ability to mobilize voters, did *Opposition Waste* drop to non-significance. Second, the critique of our informational argument would suggest that parties already had the same knowledge in 1980, without the 1979 election actually having to occur. However, during the years of opposition cooperation, probably the least predictable factor facing the parties was the extent to which the pacts would actually hold up in elections. This was difficult to gauge accurately without holding elections. Third, if the "artifact" argument were true, the results from 1979 would be a more accurate representation of party knowledge in 1980 and therefore our 1980 model's results ought to be substantially different from other years. Yet, our 1980 results for the conservatives are not much different from those in pre-full cooperation years. (In contrast, the very different results for the opposition in 1980 are consistent with our argument above about the impact of greater certainty in 1980 due to temporal closeness and the higher levels of opposition cooperation that Christensen finds.)

to pursue this issue and we second Hammond and Humes' (1995) exhortation to continue the broadening search for a better understanding of the impact and nature of adaptive parties. In such efforts, we encourage investigation of dynamic data, as non-static analysis is needed to understand the mechanisms that draw parties into and out of equilibrium states.

Appendix A. Japanese nominating behavior as an example of underdispersion in events data

To highlight its substantive source in our data, the above discussion only mentions one of two reasons for the rarity of underdispersion in event count models. To reiterate, the first reason is that negative contagion is a rare natural phenomenon. However, besides the normalcy of positive contagion, the failure to include enough independent variables to account for a significant amount of the dependent variable's parameter heterogeneity (differences in mean counts across cases) can lead to overdispersion. Since the latter occurs frequently in scholars' imperfectly specified models, the error variance— $Var(Y|X\beta)$ —in event counts is almost always overdispersed. Despite this, Fig. 1 portrays an example of underdispersion from our data. If this dependent variable were overdispersed (due to positive contagion and/or parameter heterogeneity), its observed variance would be greater than its mean. If it followed a Poisson distribution (complete independence among events), then its variance would equal its mean, and the frequency would be that indicated by the "Expected Poisson Frequency" line in the figure. Since the variance (0.81) is less than its mean (1.21), it exhibits underdispersion (due to negative contagion), making the commonly used Negative Binomial or Poisson regression models inappropriate in this case. The severity of underdispersion in our models is demonstrated by the fact that Fig. 1 shows a marginal distribution, which has a small variance even before further "reducing" the variance by conditioning on some significant explanatory variables (King, 1989a, b; King and Signorino, 1996).

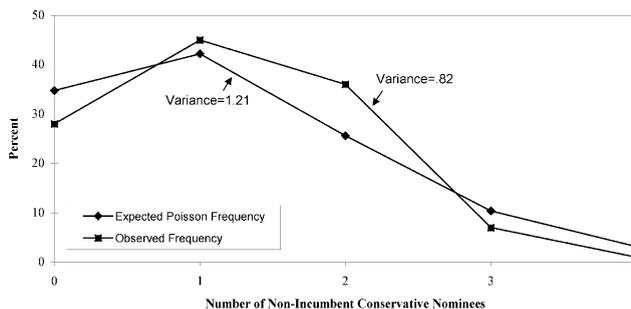


Fig. 1. Example of Underdispersion in an Event Count Variables: Conservative Nominating Behavior under Japanese SNTV in 1960

One must be cautious when drawing substantive conclusions from the dispersion of the conditional variance in an event count model. Besides negative contagion, underdispersion can be due to explained parameter heterogeneity, whereby the independent variables account for a large degree of the difference in means across cases. In short, *ceteris paribus*, the better the set of covariates on the right hand side, the smaller the conditional variance. However, a series of constant-only event count models of our data always indicated underdispersion, signifying that our dependent variables were underdispersed *even before conditioning on any regressors*. We can therefore be certain that negative contagion, as a substantive process, exists in our dependent variables and characterized the process of nominating behavior under Japanese SNTV.

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