Strategic Voting in the 1994 Taipei City Mayoral Election

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In most multi-candidate, plurality rule elections, voters often have to consider whether or not to vote strategically; defecting from a most preferred, but non-viable candidate in order to reduce the chances that an even less-preferred candidate would be elected. What makes the 1994 Taipei election interesting is that the non-viable candidates could not be easily identified, which created an opportunity for party elites to manipulate voters' decisions by sending signals to influence their perceptions of the candidates' viability. Our analysis has two important results. First, voters discounted strategic considerations in their vote calculations early in the campaign, especially when there was considerable doubt, among both voters and party elites, over which candidate was unlikely to win the election. Second, once the election became more proximate and information about candidate viability was more likely to accurately reflect the outcome of the election, voters used signals from party elites and placed greater weight on strategic considerations. © 1997 Elsevier Science Ltd

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The result of the 1994 Taipei City mayoral election, held on 3 December 1994, was quite a surprise for many people. Chen Shui-bian, the candidate from the largest opposition party— the Democratic Progressive Party (DPP), won the election by garnering 43.7 per cent of the vote. To win the election, however, Chen downplayed the Taiwan independence issue and campaigned on the theme of 'happiness and hope'. This election reinforced many DPP party elites' belief that a more moderate position on the Taiwan independence issue is a necessary trade-off for DPP to break through the 30 per cent vote share. The runner-up, Jaw Shau-kong, was the candidate from the second largest opposition party—the New Party (NP). The NP was just established in 1993 and advocates unification with China. By obtaining 30.2 per cent of

the vote, the NP demonstrated its viability in Taiwan's electoral politics. The loser, which surprised most people, was the Kuomintang (KMT), which only received 25.9 per cent of the vote. But the KMT learned a very important lesson. It learned that to become the plurality winner in future elections, on the Taiwan independence issue, the KMT's best strategy is to advocate the middle-of-the-road position since the NP has secured support from most of those who are for unification, while the DPP is moving, with resistance from some within the party, towards the middle on this dimension to compete with the KMT for more electoral support.

This paper uses data on the 1994 Taipei City election provided by the Election Studies Centre of the National Chengchi University to study some interesting questions. For example, why did the ruling party only receive 25.9 per cent of the vote in Taipei? What were voters' preferences over the three candidates? Were their vote choices consistent with their preferences? Did some voters vote strategically? How did the supporters of the two trailing candidates decide which group should vote strategically? How did party elites coordinate their supporters to achieve a more preferable electoral outcome? The paper proceeds as follows. Section 1 explores voters' preference rankings over the three candidates. Section 2 tries to understand how party elites coordinated their supporters to vote strategically. Section 3 tests a model of vote choice in the Taipei City mayoral election, and Section 4 details our conclusions.

Preference Orderings

The logic of strategic voting—also referred to as 'tactical' voting (Cain, 1978) and 'sophisticated' voting (Abramson *et al.*, 1992)—is that if a voter's most-preferred candidate is the least likely to get elected in a three-way competition, and if voting for one's most-preferred candidate may end up helping to elect one's least-preferred candidate, a voter may choose his second choice so as to reduce the chances of the worst scenario occurring.[1] So to study strategic voting, we need to know voters' preference orderings over candidates and their estimates of each candidate's chance of winning.

To identify respondents' preferences over the three candidates, we use the data supplied by the Election Study Centre of the National Chengchi University which conducted telephone surveys in Taipei City before and after the election.[2] The sample of the post-election survey was drawn from the pooled samples of the two pre-election surveys, thus constituting a panel study by interviewing the same set of respondents in the pre-election and post-election surveys.

In the pre-election survey, there are three questions that make pairwise comparisons between any two candidates. One such question is: "If DPP's Chen Shui-bian becomes the next mayor, do you think he will do better than Huang Ta-chou?". These questions, although not ideal, are the best proxies we can use to construct the voters' pre-election preference orderings. In the post-election survey, there are two questions that can be utilized to construct voters' preference rankings: (1) "Which candidate did you wish to be elected originally?" and (2) "Which candidate did you wish not to be elected originally?". For individual voters, there are 13 possible transitive preference orderings for three candidates. Let H stand for Huang Ta-chou, C for Chen Shui-bian, and J for Jaw Shau-kong. One of the preference orderings is 'HCJ', meaning, for a particular voter, H is preferred to C, C is preferred to J, and H is preferred to J. It is also likely that a voter may be indifferent between, say, C and J. In that case, it will be denoted as 'H(CJ)', indicating that he or she prefers H to either C or J, but is indifferent between C and J. Thus, the 13 preference orderings are: (1) HCJ; (2) HJC; (3) H(CJ); (4) (HJ)C; (5) (HC)J; (6) (HJC); (7) CHJ; (8) CJH; (9) C(HJ); (10) (CJ)H; (11) JHC; (12) JCH; and (13) J(HC). Table 1 displays the number of respondents with each type of preference ordering.[3]

Table 1. Respondents' preference orderings

Preference	Pre-election count	(%)	Post-election count	(%)
(1) HCJ	13	(2.9)	84	(11.9)
(2) HJC	23	(5.1)	68	(9.6)
(3) H(CJ)	14	(3.1)	5	(0.7)
(4) (HJ)C	7	(1.6)	2	(0.3)
(5) (HC)J	5	(1.1)	8	(1.1)
(6) (FIX)	9	(2.0)	1	(0.1)
(7) CHJ	89	(19.8)	206	(29.1)
(8) CJH	60	(13.3)	78	(11.0)
(9) C(HJ)	35	(7.8)	5	(0.7)
(10) (CJ)H	29	(6.4)	11	(1.6)
(11) JHC	65	(14.4)	106	(15.0)
(12) JCH	65	(14.4)	125	(17.7)
(13) J(HC)	36	(8.0)	8	(1.1)
Total	450	(100.0)	707	(100.0)

In the case of pre-election preference ordering, in pairwise comparisons, Chen was the Condorcet winner and Huang was the Condorcet loser: 303 respondents (the total number of respondents is 450) preferred Chen to Huang, 228 preferred Chen to Jaw, and 280.5 preferred Jaw to Huang.[4] In the case of post-election preference ordering, Chen was again the Condorcet winner but Jaw became the Condorcet loser: 433.5 respondents (707 total respondents) preferred Chen to Huang, 389.5 preferred Chen to Jaw, and 375 preferred Huang to Jaw. In both cases, Chen was also the Borda winner. This result can be represented by the following two matrices. To illustrate, for example, the number 228 in the left matrix means that 228 respondents preferred Chen to Jaw. The Borda count of each candidate equals the sum of the two numbers in the candidate's row (Table 2).

To a large extent, voter preferences determine vote choices, but there are significant deviations: Table 3 shows that, based on post-election preferences, of those who ranked Huang as the first choice and Chen as the second choice, HCJ, about 20.2 per cent (17 out of 84 respondents) voted for Chen instead of Huang, and for the 'HJC' type, 17.6 per cent (12 out of 68 respondents) voted for Jaw. Factors such as partisan identification (Campbell *et al.*, 1960), issue positions (Downs, 1957), and strategic voting (Cox, 1994; Cox and Shugart, undated; Duverger, 1954; Farquharson, 1969; Fey, 1995; Myerson and Weber, 1993; Niemi,

Table 2. Chen is the Condorcet and Borda winner

	Pre-election count				Post-election count			
	Chen	Huang	Jaw	Borda count	Chen	Huang	Jaw	Borda count
Chen		303	228	631		433.5	389.5	823
Huang	147		169.5	316.5	273.5		375	648.5
Jaw	222	280.5		502.5	317.5	332		649.5

Table 3. Preference orderings and vote choices

Preference	Vote choices		
	Huang	Chen	Jaw
(1) HCJ	66	17	1
(2) HJC	56	0	12
(3) H(CJ)	4	1	0
(4) (HJ)C	1	0	1
(5) (HC)J	3	5	0
(6) (HJC)	0	1	0
(7) CHJ	13	193	0
(8) CJH	3	66	9
(9) C(HJ)	0	5	0
(10) (CJ)H	0	9	2
(11) JHC	8	2	96
(12) JCH	3	4	118
(13) J(HC)	0	0	8

1984; Palfrey, 1989) may all have effects on the translation from preferences to choices. In the models below, we study the effects of strategic voting on vote choice while controlling for partisan identification and issue position.

Candidate Viability and the Role of Party Elites

In elections where the non-viable candidates can be easily identified, voters know how to vote strategically without politicians providing coordination. When it is not obvious to voters which candidate has little chance of winning, it gives politicians an opportunity to influence voters' decisions by sending signals concerning which candidate is the non-viable option. In the 1994 Taipei City election, Chen was the leading candidate from the beginning of the race. To prevent either of his competitors from gaining momentum, he tried to maintain a balance of power between Jaw and Huang by directing attacks at whichever was moving ahead. The two trailing candidates were competing hard for the No. 2 position, hoping to capture strategic votes.

Three days before the election, the convener of the NP, Wang Chien-hsuan, unexpectedly, held a press conference and announced that he had received information from reliable sources that President Lee Teng-hui, who was also the KMT Chairman and Huang's mentor, had decided "to dump Huang to save Chen". The press conference was covered by the national TV networks and viewed by millions of voters. The primary effect of this statement was to signal to voters that Jaw's chance of winning had surpassed that of Huang, implying that Huang's supporters should consider voting for their second most-preferred candidate. The press conference, to a large extent, derailed Huang's campaign and shifted the focus of attention to the competition between Chen and Jaw.

To date, no one knows whether President Lee ever made the decision "to dump Huang to save Chen". The strategy would be sensible only if the KMT believed that Huang had very little chance of winning and that Jaw would have a good chance of overtaking Chen if the KMT did not direct supporters to vote for Chen. Indeed, there was impressionistic evidence— for example, from the number of party flags (blue flags for KMT, green for DPP, and yellow

for NP) flying from taxicabs and private cars in Taipei, that Jaw was gaining momentum. So if President Lee believed that Jaw could become a plurality winner, since it was widely believed that President Lee preferred Chen over Jaw, he would have incentives to mobilize Huang's supporters to vote for Chen to counter the increasing Jaw support. Once the KMT started encouraging Huang supporters to defect to Chen, the NP leadership's dominant strategy would be to publicize this rumor, hoping that more of Huang's support would defect to Jaw. The press conference, therefore, was a means of providing Huang supporters with a cue to defect from Huang, which could help move Jaw from second to first. The interesting question for this paper, then, is the effect of this new information upon voters' behaviour.

A Model of Vote Choice

In our model, we assume that the "dumping Huang to save Chen" announcement served as the coordinating signal for voters to act strategically. In order to check whether there was indeed strategic voting, we first look to those respondents who rank Huang as the most preferred candidate. It is assumed that if the kind of rationale exhibited in strategic voting was operating, Huang's supporters would vote for their second most-preferred candidates. For example, voters with preference orderings '(HC)J' would be more likely to cast their votes for Chen since Huang was less likely than Chen to get elected.

In this section, we design a probit model to test voters' use of information about candidate viability. Our model assumes that voters make choices on the basis of their preference orderings, their estimates of the candidates' probabilities of winning, their party attachments, and their attitudes on the national identity question. In order to verify such a model, we use probit for each of the three types of vote choices: voting for Huang, for Chen, and for Jaw.[5] That is, in each case, we construct a dependent variable defined as a vote for the candidate concerned, scored 1, and a vote for someone other than the candidate in question, scored 0.

For the independent variables, we first construct a variable of preference ordering based on what vote we might expect given only sincere voting. A respondent gets a score of 3 for candidate i, if the respondent prefers candidate i to both other candidates. A respondent gets a score of 2 if candidate i is a possible first preference by indifference with one other candidate.[6] Clearly, we would expect candidate i to receive fewer votes in this case than if candidate i were a strict preference winner, but, certainly, candidate i should receive more votes from respondents with this preference order than from someone who places candidate i as a strict second choice or lower. By the same logic, candidate i's score is 1 if the respondent is indifferent between all three candidates. Finally, if candidate i is a second or third preference, the score is 0. It is assumed that the larger the score, the more likely the voter will choose that candidate.

Another independent variable is based on the respondents' likely vote choice under the assumption that voters also incorporate information about candidate viability into their decision calculus. We construct a separate measure for each time period where we estimate the model. For the pre-election period, we calculate voters' likely decisions under strategic considerations using their preference ranking and their estimate of candidates' likely order of finish from the pre-election survey. In the second period, we calculate voters' likely decisions under strategic considerations using their pre-election preference rankings combined with the assumption that they are aware that Huang is the candidate most likely to lose. By creating two different measures for strategic voting, one based upon voters' perceptions well in advance of the election and another based upon a plausible assumption about voters' information on the eve of the election, we can compare how voters may use information about candidate viability differ-

ently, as the usefulness of that information changes over the course of the election, generally, and, specifically in this case, as party elites try to coordinate voters' behaviour.

In the variable for strategic voting, a respondent gets a score of 3 for candidate i if candidate i is a strict first preference and the respondent does not expect candidate i to be the most likely to lose. A respondent also gets a score of 3 if he ranks candidate i as a top preference by indifference with another candidate, who the respondent expects to lose. In both cases, the respondent's highest utility clearly rests with voting for candidate i. Respondents get a score of 2 for candidate i if they have a strict second preference for candidate i and they expect their first preference to lose. In this case, we cannot be certain that the voter gets his highest utility by voting for candidate i because the difference in preference between his first and second choices may be so much greater than the corresponding difference between his second and third choice that the expected utility for voting for the less viable candidate may still be greater than their utility derived from casting a strategic vote. By the same logic as for sincere voting, a respondent gets a score of 0 for candidate i if candidate i is the least preferred candidate, either by himself or through indifference with another, though not both, remaining candidates. In addition, a respondent gets a score of 0 for candidate i if candidate i is the second most preferred candidate that the respondent thinks is most likely to lose. Under this situation, the respondent's expected utility is certainly greater in voting for his first preference than in voting for candidate i.

Also, a respondent receives a score of 0 for candidate i if candidate i is the second preference and the respondent believes that his least-preferred candidate is the most likely to lose. In this case, the least-preferred candidate does not pose any threat, so the voter should select his most-preferred candidate. Respondents receive a score of 1 for candidate i for all other combinations of preference orderings and electability expectations. The coding for the later strategic voting variable under the assumption that Huang is the most likely to lose follows the same logic. In all cases, the preference orderings are obtained from the pre-election survey to minimize the possibility of contamination from post-election over-reporting of support for Chen.[7]

The third independent variable is party identification. A voter gets a score of 1 if he or she supports the party to which the candidate in question belongs. Otherwise, the score is 0. Finally, we include a variable for the respondent's attitude on the national identity issue.[8] For the models where the dependent variable is voting for Chen, the national identity issue is scored 1 for respondents favouring independence, 0 otherwise. For the models of voting for Jaw, respondents favouring unification get a score of 1, others 0, and for the models of voting for Huang, respondents favouring the status quo get a score of 1, others 0.

Table 4 shows the results of the probit analysis for the three cases, using the variables for pre-election viability assessment and expected vote choice. The preference ordering and party identification are the most significant variables. The variable that accounts for expected vote choice given candidate viability is statistically significant in two cases, Huang and Jaw. With probit models, however, one must transform the parameters into probabilities. When we do this, there is no case where the effect of electability-based preferences is greater than that for the vote choice based upon sincere preferences.[9] This means that, in the period well in advance of the election, voters based their intended vote choice primarily upon candidate preference and expressed vote choices consistent with sincere behaviour.

In Table 5, we examine the same model, only using the measure capturing voters' strategic concerns, given the assumption that Huang is the candidate most likely to lose the election, and the post-election survey vote report. The effect of the variable accounting for vote choice based upon the sincere expression of preferences is statistically significant only for Jaw. By

Table 4. Probit model of vote choice, pre-election

Independent variables	Dependent variables		
	Vote for Huang	Vote for Chen	Vote for Jaw
Constant	−2.35***	−1.67***	−1.46***
	(0.50)	(0.40)	(0.21)
Preference	0.63***	1.10***	0.60***
	(0.24)	(0.14)	(0.12)
Probability estimation	0.50**	−0.06	0.36**
	(0.24)	(0.18)	(0.16)
KMT identifier	1.83***	−0.85**	−0.57**
	(0.50)	(0.34)	(0.29)
DPP identifier	0.01	1.34**	−1.87***
	(0.63)	(0.64)	(0.55)
NP identifier	0.33	−2.02***	1.34***
	(0.56)	(0.45)	(0.33)
National identity issue	−0.34	−0.16	−0.21
	(0.24)	(0.36)	(0.25)
Number of cases	351	351	350
Model chi-square	199.05***	384.70***	335.36***
Reduction error (%)	65.6	88.7	80.1

Significant at: *0.1; **0.05; ***0.01.

Note: Standard errors in parentheses. Number of observations varies slightly because some respondents expressed two possible vote intentions. In cases where candidate i was not one of the two choices, the dependent variable was scored 0. In cases where candidate i was one of the choices, the respondent was excluded from the analysis because of the indeterminacy of the response.

contrast, the effect of the variable accounting for strategic voting is strongly significant for both Chen and Huang. As with the results in Table 4, the substantive results are telling. In contrast to the strong effects of voters' sincere preferences earlier in the campaign, the substantive effects of the strategic preferences upon vote choice are greater for Chen and Huang; although, not for Jaw.[10]

This use of viability information makes sense in light of the rumours. The results clearly show that Chen benefited from these signals, beyond the effect of voters casting ballots based upon sincere preferences. Likewise, voting for Huang, albeit to a lesser degree, was also affected by these considerations. Voters appear to have allowed information about his viability to reduce the likelihood that he would gain their support.[11] By contrast, preference remains the more important factor for predicting support for Jaw. Certainly, the updated information about candidate viability should also affect Jaw's support, as people with preference ordering HJC, for example, would be more likely to defect from Huang to Jaw. The message "dump Huang to save Chen", however, does not provide potential Jaw voters with as clear a message as it does for potential Chen supporters.

One final note about the probit results is the effect of party identification upon vote choice. Earlier in the campaign, KMT identifiers were significantly more likely to express a disinclination to vote for either Chen or Jaw. By the end of the campaign, KMT identifiers were not significantly less likely than independents to vote against either Chen or Jaw. By contrast, while there was no significant difference between DPP and NP identifiers' and independents' probabilities of supporting Huang earlier in the campaign, the DPP and NP identifiers were

Table 5. Probit for the model of vote choice, final vote

Independent variables	Dependent variables		
	Vote for Huang	Vote for Chen	Vote for Jaw
Constant	-1.27***	-1.27***	-1.65***
	(0.26)	(0.34)	(0.23)
Preference	0.06	0.12	0.56**
	(0.20)	(0.24)	(0.22)
Probability estimation	0.61**	0.65**	0.09
	(0.27)	(0.25)	(0.23)
KMT identifier	0.72**	-0.43	-0.07
	(0.27)	(0.29)	(0.30)
DPP identifier	-3.07***	1.27*	-0.85**
	(0.27)	(0.47)	(0.39)
NP identifier	-0.61	-1.62***	1.66***
	(0.34)	(0.44)	(0.35)
National identity issue	-0.12	0.50*	0.21
	(0.22)	(0.26)	(0.23)
Number of cases	342	342	342
Model chi-square	124.74***	333.23***	303.71***
Reduction error (%)	37.7	84.6	77.1

Significant at: *0.1; **0.05; ***0.01.
Note: Standard errors in parentheses.

much less likely than independents to support Huang when we look at their final vote choice. This result suggests that the "dump Huang to save Chen" signal did encourage identifiers from all three parties to channel their votes toward Chen and Jaw.

In all, these results suggest that voters may discount strategic considerations in their vote calculations early in the campaign, especially when there is considerable doubt regarding which candidate is least likely to win the election. Voters appear to place greater weight on strategic considerations once the election becomes more proximate, when the information about candidate viability is more likely to reflect the outcome of the election accurately. This view is quite plausible given that preference is the dominant predictor of vote intention, using voters' early campaign information about candidate viability, followed by the great shift away from sincere to strategic considerations as the dominant predictor of final vote choice. Alternatively, the results indicate that the KMT's signal to "dump Huang to save Chen" did provide voters with some certainty about candidate viability that allowed for coordination between Huang voters whose second choice was Chen. This suggests that voters in the 1994 Taipei mayoral election made excellent use of information concerning candidate viability to avoid 'wasting' their vote and helping elect the least preferred candidate when such information could be considered both most reliable and most valuable.

Conclusion

In the Taipei election, our analysis shows that strategic voting occurred, but the final outcome of the election was not, necessarily affected. As the plurality and the Condorcet winner, Chen would have won the election in most circumstances.[12] In hindsight, our data suggest that the

press conference not only enabled voters with Huang–Jaw preferences to switch to Jaw, but also helped the larger number of voters with Huang–Chen preferences to switch their votes to Chen, thus securing Chen's chance of winning. With the benefit of these data, it may seem that the NP made a mistake in having the press conference. But, without reliable information about the second preferences of Huang supporters, the NP leaders might not have known that Chen was a Condorcet winner. Even if they did, it might still have been rational for them to publicize the KMT strategy. The NP might have decided that if they could not win, then the next best thing would be to finish as far ahead of the KMT as possible to demonstrate the NP's viability in Taiwan's electoral politics.

Our study also reveals two interesting findings. First, voters acted in accordance with the information revealed late in the campaign that the KMT was "abandoning Huang to save Chen". This suggests that given the proper cue, voters can effectively coordinate their behaviour in order to achieve a more desirable outcome. This finding points out the role of political elites in providing coordination for strategic voting because only political leaders have the ability to provide the information necessary to achieve the optimal possible outcome in a coordination game (Cox, 1994). In the Taipei election, the leadership of the KMT and the NP seemed to play an important role in voters' strategic behaviour.

Second, the data suggest that voters do not appear to rely strictly upon candidate viability at all times during the campaign. Rather, they weigh probability estimates rationally based upon information gained with greater proximity to the election. This is an interesting finding because it suggests that voters do not necessarily 'eliminate' candidates from their vote calculus early in the campaign based upon a candidate's viability at that point in the race. Evidence from American elections, however, suggests that elites, such as the media (e.g. Robinson and Sheehan, 1983; Brady and Johnston, 1987) tend to eliminate certain candidates from consideration early in the race, which may have the effect of reducing voters' choices.

Notes

1. In the British (Cain, 1978), Canadian (Black, 1978), and American cases (Abramson *et al.*, 1992), people do not vote for a less-than-most-preferred alternative just because they think that their most-preferred candidate cannot win. Voters' propensity to engage in strategic voting is dependent upon their expected utility from one candidate's victory as compared with their expected utility from a much less preferred candidate's win, and this utility is a function of the interaction between the comparative utility that a voter receives from one candidate's election instead of another's weighted by the candidates' relative chances of being elected. For example, a voter whose most-preferred candidate was projected to finish last in a three-way race would only have an incentive to vote for his second choice if he preferred that candidate greatly to the third candidate. By the same reasoning, the same voter would not have any incentive to cast a strategic vote if he detested equally the other two candidates. In this case, voting for a second choice does not reduce the probability of an inferior outcome.

2. The pre-election surveys were conducted from 28 October to 5 November and from 22 November to 1 December, and the post-election survey was conducted from 10 to 15 December. The sample size of this panel study is 1359.

3. It is clear from the table that the number of people who expressed only strict preferences far exceeds those whose preferences contained indifference, although the difference is much smaller in the pre-election survey than in the post-election survey. Part of this difference might be a result of the question wording, which makes indifference more easily observed in the pre-election poll. We suspect, however, that there may also be an effect caused by greater information held by the respondents in the post-election poll.

4. In the pairwise comparison, a candidate receives 1 point if he is preferred to the other candidate and $\frac{1}{2}$ point if the respondent is indifferent between the two candidates.

5. Alvarez and Nagler (1995) argue that this procedure can produce bias in instances where a three-choice dependent variable is reduced to a dichotomous choice because of correlations between the errors for individuals' utility for each of the choices. Their results, however, show that such correlations are not necessarily present. Chris Achen suggests an alternative model where the dependent variable is truly dichotomous, such as voting sincerely or voting strategically, but there are not adequate measures in the data for obtaining the estimates of candidate utility necessary for estimating parameters in these models.
6. In this case, we can think of a sincere voter making his vote decision by randomly choosing between the two candidates, each with a 0.5 probability of being chosen.
7. Part of this contamination is a product of the post-election survey's wording, which asks voters which candidate "they hoped would win". It is not clear that this preference reflects respondents' sincere preferences or their preferences once they have decided that there are only two candidates who can win.
8. For a discussion of political and social cleavages in Taiwan, see, for example, Hsieh and Niou (1996a, b) and Lin *et al.* (1996).
9. Holding all variables at their means, the maximum effects of strategic preferences upon vote choice are 0.41, 0.05 and 0.39 for Huang, Chen, and Jaw, respectively. The maximum effects for sincere preferences, however, are 0.56, 0.81 and 0.59, for Huang, Chen, and Jaw, respectively.
10. Holding all variables at their means, the maximum effects of strategic preferences upon vote choice are 0.42, 0.64 and 0.10 for Huang, Chen, and Jaw, respectively. The maximum effects for sincere preferences are 0.02, 0.14 and 0.58, for Huang, Chen, and Jaw, respectively
11. Remember that the variable for strategic considerations provides fewer preference orderings favouring a vote for Huang than the variable for sincere preferences. The opposite, of course, is true for Chen.
12. Abramson *et al.* (1992) found that roughly 15 per cent of the respondents in a 1988 American presidential nomination survey showed direct evidence of having cast a strategic vote. For evidence about strategic not affecting outcomes with Condorcet winners, see Abramson *et al.* (1995). But, for an example where this was not true, see Brams and Fishburn (1983).

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