Party Leaders, Global Warming and Green Voting in Australia

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As the Australian environmental movement has routinised and become increasingly institutionalised, its representative aspect – the Australian Greens – have grown to become a successful minor party. Environmental attitudes and voting for the Greens in the Senate are examined here through multivariate analyses of Australian Election Study data collected between 1990 and 2010. Younger people, the tertiary educated and postmaterialists consistently vote for the Greens, yet major party leaders also appear to shape environmental voting. Controlling for social and political background, respondent evaluations of major party leaders are associated with attitudinal variation over the risks of global warming. Major party leaders not only seem to influence public opinion on global warming, but also have an impact upon Green voting in federal elections.

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Introduction

Similar to the situation in the USA (Hamilton 2008; Dunlap and McCright 2008), there is a serious partisan divide in Australia over commitment to taking action on climate change (Tranter 2011), with Labor and the Greens in favour and the coalition parties broadly against. In this paper I analyse survey data from the Australian Election Study (AES) series to examine public attitudes toward global warming and Green voting in the federal Senate. This research demonstrates the influence of political leaders upon environmental attitudes and voting behaviour. The results also show how public evaluations of major party leaders influence Green voting in the Senate, even after controlling for social and political background factors.

Social background and environmental issue support in Australia

Concern over environmental issues has been explained in terms of value priorities, age and generational differences, gender, education, place and social class (e.g., McAllister and Studlar 1999; Tranter 1996; Inglehart 1990). For Inglehart (1997), citizens of advanced industrialised countries born after World War II are more likely to hold 'postmaterial' values, prioritise free speech and seek greater say in political decision making. 'Materialists' on the other hand, give precedence to economic and security issues. Postmaterialists are more likely than materialists to be concerned about environmental issues, to join environmental groups, participate in protest actions and vote for Green political parties (Tranter 2010, 1996; Tranter and Western 2003; Western and Tranter 2001; Inglehart 1997, 1990; Crook and Pakulski, 1995; Papadakis 1993; Müller-Rommel 1990). According to Inglehart (1990), postmaterialists emphasise environmental protection, with those who grew up during the post war period and subsequent generations much more likely to be concerned about 'the environment' than older generations.

Women tend to 'play more prominent roles in grass-roots mobilisations' (Rootes 2004: 617) and are more concerned than men about environmental issues (Zelezny et al. 2000: 444-45). In Australia, women are also more likely than men to participate in environmental demonstrations, although no more likely to be environmental group members (Tranter 1996, 1997). Some class differences are claimed to underpin environmental support, with members of the 'new class' allegedly supportive of environmental protection to a greater extent than other classes (Kriesi 1989), although claims of 'new class' support tend to mask the

important influence of tertiary education (Rootes 1995: 227). Only weak relationships between class location and environmental activism are apparent in Australia, while tertiary education has strong effect (Tranter 1996: 73).

Political Leaders and Partisans

Inglehart's (1990) claims that cognitively skilled citizens are very politically active, highly likely to participate in new social movements and support 'new politics' or 'left-libertarian' parties, are relevant here. Political party identification is claimed to influence attitudes and voting behaviour (Miller 1976; Campbell *et al.* 1960). It performs a 'simplifying function' helping voters sift through complex political issues, with political leaders providing 'cues' that 'guide the political thought and action of the party identifier' (Miller 1976: 23). Party identification effectively forms a 'perceptual screen through which the individual tends to see what is favorable to his partisan orientation's Campbell *et al.* (1960: 133). While the partisan dealignment thesis suggests the weakening of partisan loyalties (Dalton, 1996; Dalton *et al.* 1984), partisanship remains a powerful predictor of voting in many countries (Bartels, 2000; Miller and Shanks 1996; Bean, 1997; 1996).

More broadly, Gilens and Murakawa (2002: 21) argue that 'cue taking' is 'a more common means of evaluating political issues than substantive assessment of competing evidence and arguments'. In the context of this research, cues provided by party leaders in relation to global warming may at least partly structure public attitudes and intentions. As Zaller (1992: 266) claims, 'the greater a person's level of habitual political awareness, the more likely she is to receive these messages. Also, the greater a person's level of awareness, the more likely she is able, under certain circumstances, to resist information that is inconsistent with her basic values or partisanship'. Analysing Swiss referendum data, Sciarini, Bornstein and Lanz (2007) found a 'divided elite' can have a strong 'polarising effect' on the voting public. When leaders are divided, divisions are likely among partisans. For example, Dunlap and McCright (2008) found a substantial gap between major party supporters over global warming in the United States, with 'skepticism among Republican and conservative elites' and 'leading conservative media figures' (Dunlap and McCright 2008: 28). The extent of the partisan divide over global warming in the USA is even greater among those who claim to have a good understanding of the process of global warming (Dunlap and McCright 2008: 33). Employing data from the AES, I consider the influence of political partisanship and

public evaluations of political leaders upon attitudes toward global warming and voting for the Australian Greens below.

Data and Method

The data analysed here are from the Australian Election Studies (AES) series. The AES surveys are nationally representative with sample sizes typically approaching or exceeding 2000 cases (see McAllister et al 2011). These surveys are based upon systematic samples drawn from the federal electoral roll prior to each federal election. In this case I analyse data collected from 1996 to 2010. Two dependent variables are analysed. The first is derived from the question: 'Do you think that global warming will pose a serious threat to your way of life in your lifetime?' The global warming variable is analysed using ordinary least squares regression. The second dependent variable models voting for the Australian Greens in the Senate (1 = Greens; 0 = other parties). The results of binary logistic regression analyses are shown for the voting analyses, with odds ratios presented to facilitate the interpretation of the regression estimates.

Independent variable include sex, age (measured in years), tertiary education, professional occupation, location in a large city, state (Tasmania), postmaterial value orientation scale (1=materialist; 2 = mixed; 3 = postmaterialist), ii political party identification (1=coalition; 2 = other or no party; 3 = ALP) and affective evaluations of political party leaders iii. The political party identification scale is operationalised to capture the impact of identification with the major parties, with Green identification therefore coded to the mid-point of the scale. Given the Australian Greens formed in 1992, the formation of enduring partisan loyalties to the Greens through parental socialisation could only possibly apply to a very small proportion of the electorate so is not used here as a predictor of environmental attitudes or voting behaviour.

Results

Attitudes toward global warming

When respondents were asked if global warming will pose a serious threat to their way of life in 2010, 19% claimed it would pose a 'very serious' threat, 37% a 'fairly serious' threat, 33% 'not very serious' and 11% believe global warming is 'not at all serious'. When these responses are cross tabulated with party identification, the strength of the partisan impact on this issue is apparent (Table 1). Thirty-eight percent of Liberal party identifiers view global

warming as a very or fairly serious threat to their way of life, as do 42% of Nationals supporters. By contrast, 69% of Labor supporters and 83% of Greens are concerned over the issue. The AES responses illustrate the very strong partisan divide over global warming at the last federal election. While these data were collected in 2010, they inform the current debate over climate change by illustrating the far lower level of beliefs in the seriousness of global warming among coalition identifiers compared to Labor and Greens supporters, reflecting the partisan cues offered by major party leaders.

In Table 2 the seriousness of global warming question is subjected to more robust analysis using ordinary least squares regression, where data from the 2007 and 2010 AES are pooled. Three models are presented. The first shows the associations between attitudes toward the risk posed by global warming and social and political background, the second model adds the two major party leader evaluation scales, and the third model adds the leader evaluation scale for the Greens leader.

Partisan divisions over the veracity of the threat of global warming remain even controlling for social background and postmaterial value orientations. Labor identifiers were approximately eight times as likely as coalition supporters to believe that global warming poses a serious threat in their lifetime (model 1). These results hold even after controlling for a range of social background effects and evaluations of the party leaders, suggesting they are robust. In model 2, where leader evaluation scales are introduced to the regression equation, the party identification effects are weakened substantially, suggesting the effect of party identification is mediated through party leadership (i.e. in model 3 party ID is non-significant at the 95% level). These results indicate that political leaders have a powerful influence upon environmental attitudes in relation to global warming, even stronger than party identification. Positive evaluations of Labor leaders are associated with concern over the impact of global warming, while positive evaluation of the Coalition leader is associated with attenuated support. Notably and not surprisingly, those who evaluate the Greens leader Senator Bob Brown in positive manner are far more likely to be concerned about global warming, social and political background held constant.

These findings suggest that political leaders exert an influence across the political spectrum.

Partisans may follow the cues offered by their party leaders, but they also seem to react to the

leaders of other parties, particularly when the political elite is divided as is the case over global warming in Australia.

Green voting in the Senate

The influence of political leaders upon voting for the Greens in the Australian Senate from 1990 to 2010 is now considered (Table 3), iv then, after pooling all election survey data for the same period, the analyses are split according to the political party affiliation of voters (Table 4). The expectation in the latter analyses is that political partisans tend to evaluate their respective leaders positively, and that positive evaluations of one's leader should be associated with a rejection of voting for other parties.

The results for the leader evaluation scales are mixed. On average, voters who display favourable attitudes toward the Labor leader were slightly less likely to vote for the Greens in the Senate in 1996, but no significant associations were found for Labor leaders in other election years. On the other hand, positive evaluations of Coalition leaders were associated with decreased likelihood of voting for the Greens in the Senate across all elections from 1996 to 2010 – in line with the expected pattern.

Other results of note here are that younger people are generally more likely to vote green, as are those with tertiary qualifications, professional occupations and without religious affiliations. Postmaterialist value orientations are strong predictors of the Green vote in every election year except for 1998, where the effect was in the expected direction but non-significant at the 95% level. Tasmania was confirmed as the 'greenest' Australian state with Tasmanians almost twice as likely as residents of other states and territories to support the Greens at the ballot box. Interestingly though, the effect for Tasmania was negative in the most recent election. The analyses of pooled data in the final column suggest the tendency to vote for the Australian Greens has increased steadily over time, other effects held constant. Controlling for social background and leader evaluations, Australians at the 2010 election were approximately nine times as likely to vote for the Greens as they were in 2001. Importantly, as the estimates in the final column of Table 3 are pooled, they comprise over 13,000 respondents in total with over 1,000 Greens voters, so these findings are expected to be robust.

In the final table these pooled data are split by political party identification. vi Further patterns emerge, with the results in Table 4 confirming that in overall terms, Labor leaders have less

impact upon the Green vote than coalition leaders. Positively evaluating the coalition leader is associated with a reduction in the odds of a Greens vote in the Senate. However, the direction of the Labor leader effect varies according to party affiliation. While in overall terms the impact of Labor leaders are negligible (see final column), this varies according to partisanship. The results for the coalition column may not be highly reliable given the small number of coalition voters who have voted for the Greens in the AES (N=89), but results for Labor and the other/no party analyses should be robust. The Labor leader effect is positive among coalition and other/no party identifiers, although negative among Labor partisans. That is, the chances of voting for the Greens in the Senate are higher among those who identify with a party other than Labor but who view the Labor leader positively. Yet among Labor partisans, who 'liking' the Labor leader is associated with a reduced likelihood of voting for the Greens in the Senate.

While positive evaluations of Labor leaders reduce the likelihood of a Green Senate vote among Labor identifiers, among those who are unaligned, or identify with other parties, positive evaluations of Labor leaders are associated with an *increased* likelihood of Green voting. It appears that non-partisans interpret the 'cues' offered by Labor leaders in somewhat different ways to Labor partisans. Further, positive evaluations of Coalition leaders reduce the likelihood of voting Green across the political spectrum, suggesting that the cues provided by Coalition leaders are interpreted in a consistent manner by the Australian public – that is, they tend to reduce Green voting in the upper house.

Conclusion

Global warming and climate change are important issues for many Australians, although public support for action on climate change tends to vary according to social background and political affiliation. In 2010, there were substantial partisan differences over the threat of global warming in Australia, with Labor and Greens supporters far more likely than coalition partisans to be concerned about the possible threat of global warming. The way Australians evaluate their party leaders appears to influence their views regarding global warming, even to an even greater extent than their political party affiliations. Positive evaluations of former coalition leaders are associated with climate change scepticism, while those who evaluate Labor (and of course Greens) leaders favourably are more likely to view global warming as a serious threat within their lifetime.

Other researchers such as Dunlap and McCright (2008) have shown political partisanship to be associated with divergent views on climate change. I have demonstrated the influence of political leaders upon the environmental attitudes and voting behaviour of party supporters. Leaders provide cues for partisans to follow and simplify political issues for those without sufficient interest in politics to explore them for themselves. Australian political leaders are instrumental in shaping public views on environmental issues when divisions exist within the political elite, and, based upon the voting analyses, also influence voting behaviour in relation to other parties. Analyses of Australian Election Study data demonstrate that major party leaders influence voting for the Greens in the Senate, particularly the leaders of the conservative Liberal and National (coalition) parties. Holding positive views of coalition leaders has a consistent influence, tending to reduce the propensity to vote for the Greens in the Senate in all elections from 1990 to 2010.

These findings are relevant to recent debates over appropriate ways of addressing human induced global warming in Australia and elsewhere. This research extends findings from other countries (Dunlap and McCright 2008; Sciarini, Bornstein and Lanz 2007), demonstrating that divided political elites have a powerful impact upon public support for action on environmental issues and voting. Party leaders (particularly conservative party leaders) structure environmental concern and behaviour when they are in public disagreement over important environmental issues. In Australia, such a 'polarising effect' is mediated, not only by the way partisans evaluate their own party leader, but also the leaders of other parties who adopt a strong stance on environmental issues.

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Table 1: Seriousness of Global Warming by Political Party Identification (percent)

	Very + Fairly	Not much + None	
Liberals	37.7	62.3	
National	42.4	57.6	
Labor	68.6	31.4	
Greens	82.8	17.2	
Other	61.0	39.0	
None	55.7	44.3	

Source Australian Election Study 2010

Table 2: Risk of Global Warming by Social Background (OLS)

Model	Global Warming	Global Warming	Global Warming
Intercept	54.42	64.94	58.57
Men	-5.98***	-5.26***	-3.95***
Age (years)	-0.282***	-0.288***	-0.264***
Degree	4.73**	3.78*	2.21
Professional Occupation	2.25	1.77	0.62
City	-0.99*	2.06	1.60
No Religious Denomination	0.07	-1.22	-2.86*
Middle class	-0.99	-0.78	-0.89
Tasmania	4.36***	3.13	5.10
Values scale (1-3)	5.22***	4.18***	2.52**
Party ID (scale)	8.20***	2.03*	1.13
Labor leader (scale) Coalition leader (scale) Greens leader (scale)	- - -	1.75*** -1.31***	0.84*** -0.92*** 3.15***
Survey year 2010	-12.78	-11.22***	-10.60***
R ² N	.13 (3,998)	.15 (3,998)	.19 (3,998)

* p<.05; ** p<.01; *** p<.001 Source: Australian Election Study (2007-2010).

Table 3: Green voting in the Senate by Election Year (odds ratios)

	1990	1996	1998	2001	2004	2007	2010	All
Men	1.1	0.8	0.6	0.8	0.9	0.99	0.9	0.9
Age	0.96**	0.98	0.96***	0.99	0.98***	0.99**	0.99**	0.98***
Degree	2.2	1.5	0.6	1.5	1.7*	1.8**	2.1***	1.7***
Professional	1.0	0.7	2.5*	1.6	1.5*	1.6*	1.4	1.5***
City	-	1.4	1.2	1.4	1.1	1.6**	1.4**	1.3***
No Religion	1.33	2.3**	2.1*	2.2***	1.5*	1.9***	1.1	1.6***
Middle Class	1.0	0.9	0.7	0.9	1.5*	0.9	1.5**	1.2
Tasmania	3.4	2.9	5.7***	1.9	2.0	2.8**	0.9	2.2***
Postmaterial Scale	2.48**	1.79*	1.42	2.33***	2.36***	1.97***	2.06***	2.07***
Political Interest	1.1	1.4	0.9	1.5	1.8	1.3	1.2	1.2**
Party ID (scale)	1.07	1.22	0.88	0.70*	0.95	0.99	1.05	0.96
Labor	0.92	0.90*	1.06	0.97	1.00	0.97	1.00	0.98
Coalition	0.92	0.90*	0.84*	0.78***	0.79***	0.82**	0.77***	0.80***
Survey								
1990	_	_	_	_	_	_	_	0.11***
1996	_	_	_	_	_	_	_	0.16***
1998	_	_	_	_	_	_	_	0.14***
2001	_	_	_	_	_	_	_	0.44***
2004	_	_	_	_	_	_	_	0.78*
2007	_	_	_	_	_	_	_	0.97
2010	-	-	-	-	-	-	-	1
Nagelkerke R ²	.13	.10	.15	.23	.31	.27	.27	.30
N	(2002)	(1789)	(1878)	(1992)	(1739)	(1847)	(2152)	(13399)
Green vote N	(38)	(48)	(43)	(137)	(1737)	(251)	(313)	(1029)

Notes: * p < 0.05; ** p < 0.01; *** p < 0.001.

Estimates are Logistic Regression coefficients expressed as odds ratios. Dependent variable: Voting in the Senate 1 = Green; 0 = Labor + Coalition + Other parties.

Source: Australian Election Studies (1987 – 2010)

Table 4: Green voting in the Senate by Political Party Identification (odds ratios)

Party ID	Coalition	Labor	Other/none	All
Men	0.7	1.1	0.9	0.97
Age	0.97***	0.99	0.99**	0.98***
Degree	1.9**	3.2***	2.4****	2.7***
Labor	1.11**	0.88***	1.08***	0.98
Coalition	0.72***	0.86***	0.80***	0.77***
Cherrory				
Survey 1990	0.1***	0.1***	0.1***	0.1***
1996	0.2**	0.1***	0.2***	0.2***
1998	0.1***	0.1***	0.2***	0.2***
2001	0.6	0.4***	0.5***	0.5***
2004	0.6	0.8	0.9	0.9
2007	0.99	0.9	0.9	0.99
2010	1	1	1	1
Nagelkerke R ²	.22	.21	.28	
N	(5,384)	(5,069)	(3,143)	(13,596)
Green vote N	(89)	(404)		
Green voic iv	(09)	(404)	(555)	(1,048)

Notes: * p < 0.05; ** p < 0.01; *** p < 0.001.

Estimates are Logistic Regression coefficients expressed as odds ratios.

Dependent variable: Voting in the Senate 1 = Green; 0 = Labor + Coalition + Other parties.

Source: Australian Election Studies (1987 – 2010)

ⁱ Question wording was identical in both surveys but the response categories varied. These are rescored to range between 0 and 100 for comparative purposes in the OLS regression analyses. There were 3 responses for the question in 2007: Yes, will pose a threat = 100, No, will not pose a threat = 0, Depends = 50, and 4 responses in 2010: very serious threat = 100, fairly serious = 66, not very = 33, not at all = 0. Missing data are coded to the scale mid-point.

- 1. Maintain order in the nation
 - 2. Give people more say in important government decisions
 - 3. Fight rising prices

4. Protect freedom of speech

If you had to choose among these four aims, which would be your first choice? And which would be your second choice?' Inglehart (1997) classifies combinations of options 2 and 4 as 'postmaterialists' and options 1 and 3 as 'materialists'.

The leadership scales are derived from the following questions: "using a scale from 0 to 10, please show how much you **like** or **dislike** the party leaders. Again, if you don't know much about them, you should give them a rating of 5" (bold emphasis in original wording). For consistency in regression models the 0-10 dependent variable is used to compare voters' views of political leaders over time. Separate questions in each AES measure respondent views of leader qualities (i.e. in 2010: the leader is competent, compassionate, sensible, a strong leader, honest, knowledgeable, inspiring, trustworthy). However, these questions have not appeared in a consistent manner over time in the AES. In the 2010 AES data the latter items form reliable scales (i.e. Abbott and Gillard composite scales each had Alpha coefficients of .93). Analysis of 2010 data suggest that the composite scales as independent variables in regression models produce very similar results to the 'like' scales used here, with Pearson's correlations between the composite and 'like' scales in 2010 were strong (i.e. Abbott r.76 and Gillard r.78). For reasons of parsimony and consistency in analyses over time the single item scales are analysed.

The AES question was: 'Here is a list of four aims that different people would give priority.

^{iv} The 1993 Australian Election Study does not include a separate category for the voting for the Greens so these data are not included in the analyses.

Vusing the 1990 data as the reference group would be preferable to illustrate the increase in the magnitude of the Green vote. However, the 1990 to 1998 surveys each contained only around 40 Green voters. I therefore model the 2010 survey as the reference category in regression analyses as it contains the large number of Green voters so that estimates produce smaller standard errors.
 vi Given that only there are only 89 cases where coalition identifiers have voted Green in the Senate in the AES,

vi Given that only there are only 89 cases where coalition identifiers have voted Green in the Senate in the AES, the regression models have been simplified, with only the leader evaluations controlling for age, sex, tertiary education and survey year.