Beautiful Politicians*

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Abstract

Are beautiful politicians more likely to be elected? To test this, we use evidence from Australia, a country in which voting is compulsory, and in which voters are given 'How to Vote' cards depicting photos of the major party candidates as they arrive to vote. Using raters chosen to be representative of the electorate, we assess the beauty of political candidates from major political parties, and then estimate the effect of beauty on voteshare for candidates in the 2004 federal election. Beautiful candidates are indeed more likely to be elected, with a one standard deviation increase in beauty associated with a 1½ – 2 percentage point increase in voteshare. Our results are robust to several specification checks: adding party fixed effects, dropping well-known politicians, using a non-Australian beauty rater, omitting candidates of non-Anglo Saxon appearance, controlling for age, and analyzing the 'beauty gap' between candidates running in the same electorate. The marginal effect of beauty is larger for male candidates than for female candidates, and appears to be approximately linear. Consistent with the theory that returns to beauty reflect discrimination, we find suggestive evidence that beauty matters more in electorates with a higher share of apathetic voters.

JEL Codes: D72, J45, J71

Keywords: economics of beauty, elections, voter rationality, information shortcuts, thin slices

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I. Introduction

Better understanding voting behavior is a major challenge in political economy and political science. Do voters respond largely to economic outcomes, as the voter rationality literature has suggested? Do voters use information shortcuts, relying on cues garnered from the physical appearance of a candidate? Or is voting characterized by political ignorance, with electors responding to factors that are clearly irrelevant to candidate quality? How much can a 'thin slice' of information – a photo of a candidate – predict about his or her electoral success?

To put these theories to the test, we estimate the relationship between a candidate's physical beauty and his or her electoral success. Our analysis uses data on the electoral success of major party candidates in the 2004 Australian federal election (the advantages of analyzing Australia are discussed below). We observe a strong relationship between our raters' estimate of the attractiveness of a particular political candidate, and the share of the vote received by the political candidate in the 2004 election. This effect is both statistically and economically significant. On average, we find that a one standard deviation increase in a candidate's beauty (equivalent to moving from the 50th to the 84th percentile of the beauty distribution) is associated with a 1½ – 2 percentage point increase in a candidate's share of the vote. The effect is even larger for particular groups, such as male challengers.

Our research is related to four distinct literatures. The first is the literature on rational voting, which models voters as responding to economic conditions at either the national or individual level. These models have been shown to successfully forecast election outcomes in the United States (Fair 1978, 2004; Kinder and Kiewiet 1981; Lewis-Beck 1985; Wolfers 2002), Australia (Jackman and Marks 1994; Jackman 1995; Cameron and Crosby 2000; Wolfers and Leigh 2002) and other developed nations (Alesina, Roubini and Cohen 1997; Leigh 2004). Comparing the predictive power of the same economic models in Australia and the United States, Leigh and Wolfers (2006) conclude that US voters are more responsive to economic conditions than Australian voters.

Other studies have demonstrated systematic deviations from the voter rationality model. Wolfers (2002) found that governors are more likely to be re-elected when the US economy booms. Leigh (2004) noted that heads of state are more likely to be re-elected when the world economy booms. Achen and Bartels (2004) observed that governments are less likely to be re-elected when elections are accompanied by droughts, floods, or shark attacks. Brennan and Lomasky (1993) argue that since the probability of a voter casting the decisive ballot is extremely small, we should expect most voting to be expressive (ie. a symbolic act, undertaken for its own sake) rather than instrumental (ie. aimed at bringing about particular outcomes). Since Federation in 1901, 4478 federal races have taken place in Australia, and only one has been decided by a margin of one vote (none have been tied). So the empirical chance of an Australian voter casting a ballot that affects the outcome of the race is approximately 1 in 4478.[1]

The second body of research that is relevant here are studies in political science showing that voters employ 'information shortcuts'.[2] Lupia (1994) showed that voters in California insurance reform elections used information from the recommendations of interest groups to emulate the behavior of relatively well informed voters. Based on polling evidence, McDermott (1998) demonstrated that voters used candidates' gender and race as a cue to policy positions. Equally, the physical attractiveness of a political candidate may be used as an information shortcut by voters, who infer that beautiful candidates have other positive traits.

[1] The election was for the seat of Ballaarat (later renamed Ballarat) in 1919, when the National Party candidate, Edwin Kerby (13,569 votes) beat the Labor candidate, Charles McGrath (13,568). However, the courts overturned the result, and McGrath was elected in a by-election in 1920. Therefore, it might be better to describe voters in that race as 'temporarily decisive'. The total number of races is comprised of 4337 electoral races in general elections, plus 141 by-elections. In the US, Mulligan and Hunter (2003) find that the empirical probability of a voter casting the pivotal vote is 1 in 89,000 in Congressional elections, and 1 in 15,000 in state legislator elections.

[2] A related issue is whether information shortcuts can substitute for full information. If voter errors are random, Condorcet (1785) has shown that they will cancel each other out so long as there are a sufficient number of voters. However, Bartels (1996) has argued that information shortcuts are no substitute for full information, and has shown that less-informed individuals vote in systematically different ways to more informed electors.

The third set of studies to which this paper relates are those in psychology documenting the phenomenon of 'thin-slicing', under which '[a] great deal of information is communicated even in fleeting glimpses of expressive behavior' (Ambady and Rosenthal 1992). For voters, casting a ballot based on the attractiveness of the candidate may be akin to 'thin-slicing', a psychological theory which suggests that '[a] great deal of information is communicated even in fleeting glimpses of expressive behaviour' (Ambady and Rosenthal 1992). In their review of the literature, Ambady and Rosenthal have shown that viewers watching short video clips (with or without sound) can accurately predict such outcomes as whether a person is lying, whether a patient is depressed, and whether a teacher is effective. In US politics, Benjamin and Shapiro (2005) have demonstrated that independent raters are able to accurately predict the winner of gubernatorial elections from watching a short video clip of the contestants.

The fourth literature to which our work relates are other studies looking at the 'beauty effect'. Following the work of Hamermesh and Biddle (1994) on the Canadian and US labor markets, a series of papers have shown that more attractive people earn higher wages. This is true within professions such as US attorneys (Biddle and Hamermesh 1998) and US advertising executives (Pfann, Bosman, Biddle, and Hamermesh 2000), and across labor markets as diverse as Australia (Borland 2001), Britain (Harper 2000), and China (Hamermesh, Meng and Zhan 2002). Mocan and Tekin (2006) also present evidence that less attractive people are more likely to commit crime. In Australia, Britain and the US, the marginal effect of beauty appears to be stronger for men than for women. Some evidence exists on elections and beauty, with researchers finding a positive effect of beauty in elections to become an officer of the American Economic Association (Hamermesh 2006) or a member of a British community board (Banducci et al. 2003). In national elections, more beautiful candidates have been found to do better in elections to the national parliaments of Finland (Berggren, Jordahl and Poutvaara 2006) and Germany (Klein and Rosar 2005). In the US, candidates whose faces were judged to be more competent won more votes in actual elections (Todorov et al 2005). While Senator John McCain may have described Washington DC as 'Hollywood for ugly people', the

evidence from each of these studies suggests that a pleasing physical appearance is positively correlated with electoral performance.

Analyzing Australian elections has two major advantages over previous studies of beauty and voting behavior. First, since voting is compulsory in Australia, we are able to estimate the effect of attractiveness on voting across the adult population. Second, Australian voters arriving at a polling place are almost invariably handed a 'How to Vote' card for each of the major parties. Since these cards feature a photo of the candidate, we can be sure that our measure of beauty matches that of the voter.

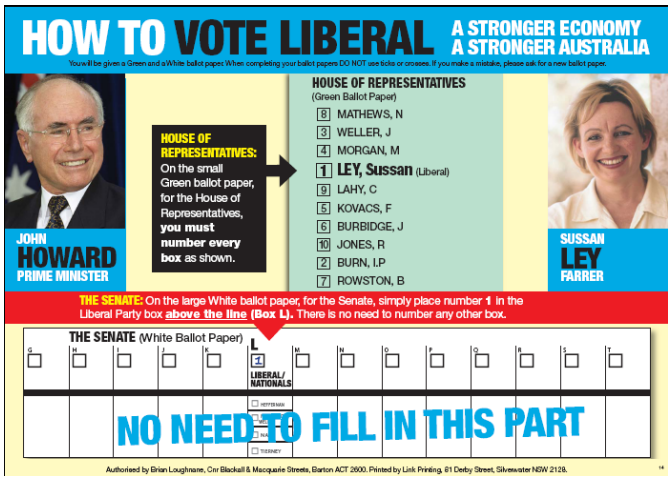
The remainder of this paper is organized as follows. Section II outlines our data and rating procedure. Section III presents our main results. Section IV presents a series of robustness checks. Section V tests whether beauty effects vary systematically across electorates, and the final section concludes.

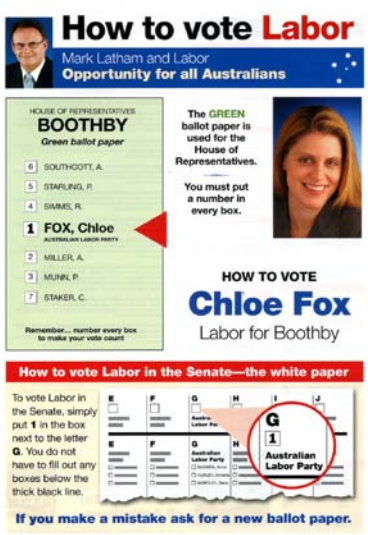
II. Institutional Background and Beauty Ratings

There are three major political parties in Australian politics. The main left-wing party is the Australian Labor Party, and the two right-wing parties are the city-based Liberal Party of Australia, and the rural National Party. The two right-wing parties operate in Coalition with one another, which means that each agrees not to run candidates against a sitting member of the other party. Elections to the House of Representatives (on which we focus) are conducted by preferential voting, also known as automatic runoff. Voting in Australian federal elections is compulsory, and the fine for failing to vote is A$20 (approximately the median hourly wage).

When Australian voters arrive at a polling place to vote in a federal election, they are typically met at the entrance by representatives of the major political parties, and handed a 'How-to-Vote' card. These cards contain instructions on how to vote for a particular party, and invariably include photos of the party leader and that party's candidate in the election. Two sample How-to-Vote cards are shown in Figure 1.

Figure 1: Sample How-to-Vote Cards Used in the 2004 Australian Election





We focus on elections to the federal House of Representatives that were held on October 9, 2004. Our electoral measure is the share of valid first-preference votes received by a particular candidate. We ignore minor party candidates since we were unable to gather a comprehensive selection of photos, and because it would not be reasonable to assume that minor party candidates handed out How-to-Vote cards at all polling places.

Our sample of candidates consisted of 286 major party candidates for which we were able to obtain photographs.[3] These photos were then compiled into a 21-page PDF document, which began with the following instructions:

[3] In practice, we were not able to obtain a full set of How-to-Vote cards for major party candidates in the Australian election, since printing and distributing these cards was the responsibility of state party branches, whose archives are of variable quality. Our photos were therefore obtained from archived versions of party websites, maintained by the National Library of Australia's Pandora project (http://pandora.nla.gov.au/). For the subsample of state party branches for which we were able to obtain How-to-Vote cards, we cross-checked photos against those kept on the party websites, and found that in almost all instances, candidates used the same photos on the website and How-to-Vote card.

> ‘Please score the physical attractiveness of each candidate on a scale of 1 (lowest) to 10 (highest) by typing your rating in the box beside each candidate. Please try to maintain an average beauty rating of 5. There are 286 candidates.’

Our raters were chosen to be representative of the Australian electorate, at least on the dimensions of age and sex. Since the 25th and 75th percentiles of the age distribution of the Australian electorate are 32 and 57, we selected our raters to be a 32 year old man, a 32 year old woman, a 57 year old man, and a 57 year old woman. Our 32-year old male rater showed a strong bias against famous politicians in his ratings, so we asked a new rater (a 29 year old male) to re-rate the photos, and substituted his ratings for those of the original rater. Of our original raters, all are of Anglo-Saxon ancestry except the 32-year old woman, who is of Palestinian-Iraqi ancestry, though she was born in Australia

As a robustness check, we also asked a 59 year old US woman (of Anglo-Saxon ancestry) to rate the photos. This was done to account for the possibility that some of our Australian raters may be unable to objectively rate the beauty of well-known politicians. Our US rater could not identify any of the politicians in the sample, including the Prime Minister, John Howard.

Our raters were told that the process would probably take them approximately one hour (13 seconds per photograph). Most reported that the rating process took somewhat less time than this. Raters were given a $20 book voucher to compensate them for their time.

Table 1 shows the pairwise correlation patterns between the five raters. The correlations are uniformly high, ranging from 0.39 to 0.56. This suggests that – at least for Australian politicians – beauty is not ‘in the eye of the beholder’.[4] However, there are some systematic differences in the correlations. The two highest pairwise correlations are the two Australian men with one another, and the two Australian women with one another.

[4] This is a common finding in the literature on cross-cultural beauty ratings. For a survey, see Langlois et al. (2000).

The ratings of the US woman with each of the Australian raters were lower than the correlations of any of the Australian raters with any another.

Table 1: Correlations Between Beauty Raters

	F32	M29	F57	M57	US-F59
F32	1				
M29	0.544	1			
F57	0.561	0.529	1		
M57	0.496	0.556	0.519	1	
US-F59	0.391	0.373	0.467	0.474	1

Note: All correlations are statistically significant at the 1 percent level. F32 is a 32 year old female, M29 is a 29 year old male, F57 is a 57 year old female, M57 is a 57 year old male, and US-F59 is a 59 year old female, from the United States.

Raters were asked to maintain a mean of 5 in their ratings. The actual means for the five raters were 5.6 (F32), 4.3 (M29), 4.3 (F57), 4.9 (M57) and 6.6 (US rater). To take account of these differences, all ratings are normed to a mean of zero and a standard deviation of unity. For our main specifications, the ratings of the four Australian raters are then summed, and this sum re-normed to a mean of zero and a standard deviation of unity.

Table 2 presents summary statistics for the beauty ratings (Panel A) and vote share (Panel B). On average, our raters thought that female candidates were more attractive than male candidates, that challengers were more attractive than incumbents, and that Liberal Party candidates were more attractive than Labor Party or National Party candidates. For ease of interpretation, we express the means of our beauty ratings both as a normed variable, and as a percentile rank. For example, the average female candidate was at the 70th percentile of the beauty distribution, while the average male candidate was at the 43rd percentile of the beauty distribution.

Summary statistics in Panel B show that the average candidate received 41.8 percent of the first-preference vote, with men receiving very slightly more votes than women, and incumbents receiving more votes than challengers. In our sample, the vote share of National Party candidates was highest, followed by Liberal Party candidates, and then Labor Party candidates.

Table 2: Summary Statistics for Political Candidates				
	Mean	**Percentile Equivalent**	**SD**	**N**
Panel A: Beauty Rating (in Standard Deviations)				
Full sample	0	50	1	286
Men	-0.182	43	0.901	212
Women	0.523	70	1.085	74
Challengers	0.143	56	1.035	159
Incumbents	-0.179	43	0.927	127
Labor Party	-0.151	44	0.995	149
Liberal Party	0.180	57	0.984	131
National Party	-0.178	43	0.957	6
Panel B: Vote Share (First Preference Votes)				
Full sample	0.418	-	0.112	286
Men	0.419	-	0.114	212
Women	0.415	-	0.106	74
Challengers	0.343	-	0.083	159
Incumbents	0.512	-	0.061	127
Labor Party	0.379	-	0.106	149
Liberal Party	0.460	-	0.103	131
National Party	0.501	-	0.052	6

Note: Beauty rating is the mean beauty rating of the four Australian raters, normed to a mean of zero and a standard deviation of unity. Percentile equivalent converts the mean for a particular sub-group to the relevant percentile on the normal distribution.

According to our Australian beauty raters, the ten most attractive major party candidates in the 2004 election were, in descending order: Nicole Campbell (ALP, Bennelong), Adam Giles (LP, Fraser), Victoria Brooks (ALP, Riverina), Andrew Laming (LP, Bowman), Julie Bishop (LP, Curtin), Kate Ellis (ALP, Adelaide), Sarah McMahon (LP, Reid), Michael Keenan (LP, Stirling), Pat Farmer (LP, Macarthur), and Sussan Ley (LP, Farrer).[5]

In common with other incumbent candidates, the party leaders were rated as less attractive than average. Prime Minister John Howard is at the 5th percentile of the beauty distribution. Mark Latham, the Labor Party leader at the 2004 election, was at the 33rd

[5] Conversations with some of these candidates indicated that they had thought carefully about the effect that their chosen photograph would have on voters. For example, Kate Ellis told us that because her appearance had been the subject of some comment in the media during the election campaign, she deliberately chose a less attractive photograph to display on her How-to-Vote card.

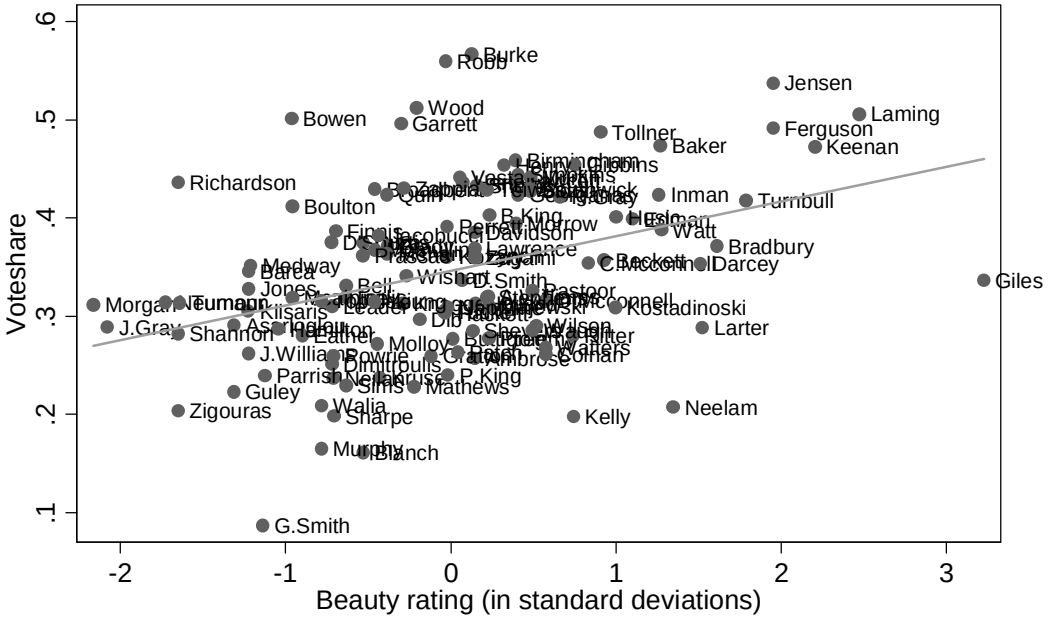
percentile (his successors, Kim Beazley and Kevin Rudd, are at the 47th and 15th percentiles, respectively).

III. Main Results

We begin by presenting our results graphically, simply plotting candidates' beauty rating against their share of the vote. To do this, we separate the sample along two dimensions. First, we distinguish men and women, since voters might be biased for/against female candidates, for reasons that have nothing to do with their attractiveness. Second, we distinguish challengers and incumbents, since incumbents may have advantages over challengers that have nothing to do with their beauty.

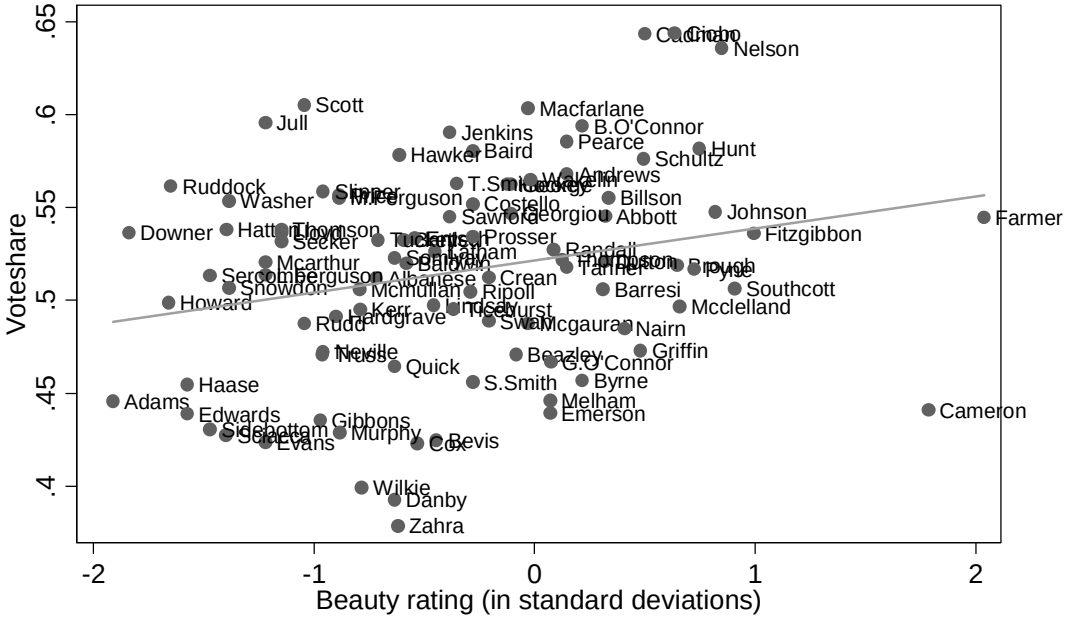
Figures 2 to 5 show the scatterplots for male challengers, male incumbents, female challengers, and female incumbents. In each case, we also fit a regression line to the data, and show the regression equation at the bottom of the graph. The relationship between attractiveness and voteshare is positive for all four groups, with the magnitude of the beauty coefficient being larger for male candidates than for female candidates.

Figure 2: Male Challengers



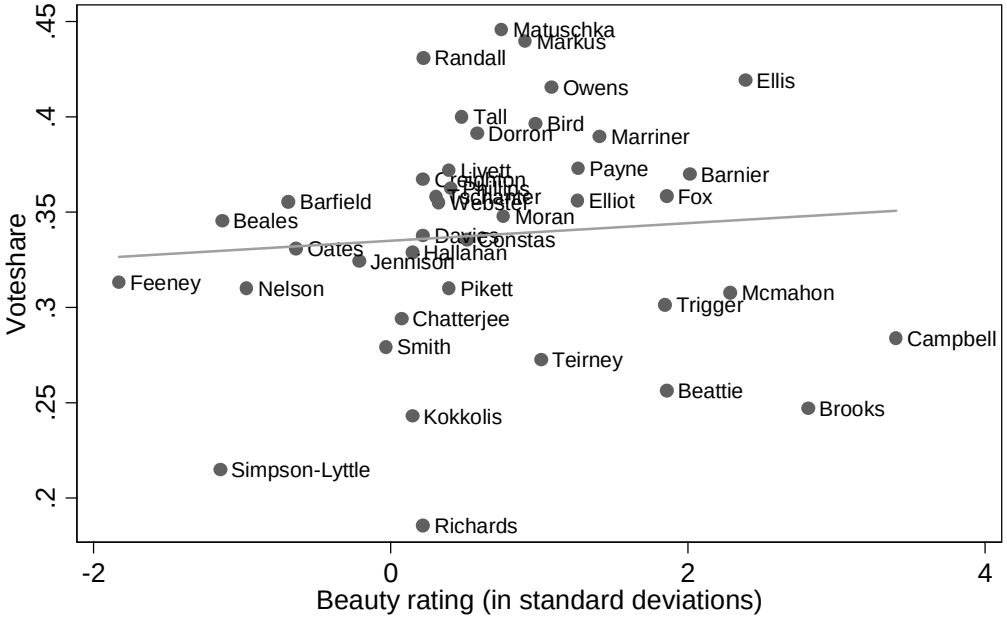
Voteshare = 0.36 + 0.035 * Beauty (t=4.4)
N=119

Figure 3: Male Incumbents



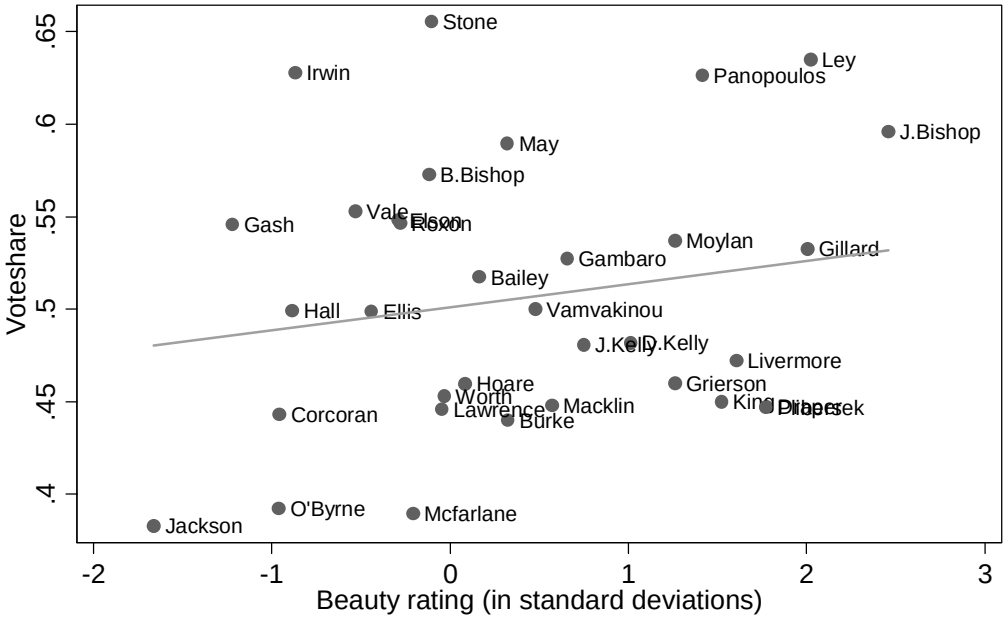
Voteshare = 0.52 + 0.017 * Beauty (t=2.3)
N=93

Figure 4: Female Challengers



Voteshare = 0.34 + 0.005 * Beauty (t=0.5)
N=40

Figure 5: Female Incumbents



Voteshare = 0.50 + 0.012 * Beauty (t=0.6)
N=34

To test the relationship formally, we regress the voteshare received by each candidate on their beauty rating. Since the voteshare of the two major party candidates in any

particular electorate are negatively correlated with one another, standard errors are clustered at the electorate level (there are 150 electorates in the sample).

Table 3 shows the results from this regression. Since the beauty ratings are expressed in standard deviations, the coefficient represents the effect of a one standard deviation increase in attractiveness. Assuming that the beauty ratings are normally distributed, a one standard deviation increase in beauty would be equivalent to moving from the 31st percentile of the beauty distribution to the 69th percentile of the distribution; or alternatively from the median to the 84th percentile.

In the first column, we omit party fixed effects, and find that a one standard deviation increase in beauty is associated with a 2.2 percentage point increase in voteshare. In the second column, we add party fixed effects (effectively assuming that none of the difference in voteshare between parties is due to differences in the beauty of their candidates), and find that the beauty coefficient falls to 1.4 percentage points. The remaining columns interact candidate gender/incumbency status with the beauty coefficient. We find that the beauty effect is smaller for incumbents and for female candidates, though the interaction terms are not statistically significant at conventional levels.

Our estimated beauty effects can be compared with the other two countries where the relationship between beauty and voteshare has been tested.[6] The specification with party fixed effects (Table 3, column 4) implies that in Australian national elections, a one standard deviation increase in beauty is associated with a 0.7 percentage point increase in voteshare for female candidates, and a 1.8 percentage point increase for male candidates. In Finnish national elections, Berggren, Jordahl and Poutvaara (2006) found that a one standard deviation increase in beauty implies an increase of 2.5-2.8 percentage points in the voteshare of female candidates and 1.5-2.1 percentage points for male candidates. In German national elections, Klein and Rosar (2005) find that a one standard deviation

[6] The analysis of US Congressional elections by Todorov et al (2005) is not directly comparable with our results.

increase in beauty was associated with a 1.5 percentage point increase in voteshare for female candidates and 0.6 percentage points for male candidates. Yet while the magnitude of the effects is quite similar across the three countries, the difference in Australia is that the marginal effect of beauty is smaller for male candidates than for female candidates. We return to this issue in the conclusion.

Table 3: Are Attractive Candidates More Likely to Win?
Dependent Variable: Voteshare

	[1]	[2]	[3]	[4]	[5]
Beauty rating	0.022***	0.014***	0.019***	0.018***	0.022***
	[0.005]	[0.004]	[0.006]	[0.005]	[0.007]
Incumbent	0.176***	0.170***	0.170***	0.171***	0.170***
	[0.010]	[0.009]	[0.009]	[0.009]	[0.009]
Female	-0.024**	-0.013	-0.012	-0.01	-0.009
	[0.010]	[0.009]	[0.009]	[0.010]	[0.010]
Beauty*Incumbent			-0.011		-0.011
			[0.008]		[0.008]
Beauty*Female				-0.011	-0.011
				[0.009]	[0.009]
Party FE	No	Yes	Yes	Yes	Yes
Observations	286	286	286	286	286
R-squared	0.6	0.68	0.68	0.68	0.68

Note: Robust standard errors, clustered at the electorate level, in brackets. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively.

Is the relationship between beauty and voteshare driven more by a premium for attractive candidates or a penalty for unattractive candidates? To test this, we divide the 286 candidates into three categories of approximately equal size: below average beauty, average beauty, and above average beauty, and regress voteshare on indicator variables for below-average and above-average beauty. The first column of Table 4 shows that candidates of below-average beauty receive 3.2 percent fewer votes, while candidates of above-average beauty receive 1.2 percent more votes. This provides some suggestive evidence that the effect operates through a penalty for ugliness rather than a reward for attractiveness. However, the standard errors are sufficiently large that an F-test cannot reject the hypothesis that the below-average and above-average beauty coefficients are opposite-signed and equal in magnitude. In column 2, we regress voteshare on average beauty and its square, and similarly find that the coefficient on the squared term is statistically insignificant.

Table 4: Attractive Premium or Unattractive Penalty?
Dependent Variable: Voteshare

	[1]	[2]
Below Average Beauty	-0.032***	
	[0.009]	
Above Average Beauty	0.012	
	[0.010]	
Beauty rating		0.016***
		[0.004]
Beauty rating^2		-0.004
		[0.003]
Incumbent	0.171***	0.170***
	[0.009]	[0.009]
Female	-0.013	-0.012
	[0.009]	[0.009]
Party FE	Yes	Yes
Observations	286	286
Pseudo R-squared	0.69	0.68
F-test (H0: Below Average Beauty + Above Average Beauty = 0)	1.33 [P=0.251]	

Note: Robust standard errors, clustered at the electorate level, in brackets. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively. In the first column, candidates are divided into three equally-sized groups, and the excluded group is candidates of average beauty.

IV. Robustness Checks

To test the robustness of the main results in the previous section, we conduct a series of robustness checks. The first is to check whether our results are robust to re-specifying the key independent variable as the difference in beauty between the major party candidates running in a particular electorate. For example, suppose that within a given electorate, the Candidate A is of median beauty (beauty rating=0), while Candidate B has a beauty rating 0.5 standard deviations below average (beauty rating=-0.5). In this case, the beauty gap for Candidate A would be +0.5, while the beauty gap for Candidate B would be -0.5. Naturally, the beauty gap can only be estimated in electorates for which we have beauty ratings for both candidates, so the sample size falls from 286 to 270. In all specifications, standard errors are clustered at the electorate level.

Table 5 shows the results from this regression. In the first column, we estimate the effect of beauty ratings for the subsample of 270 candidates. The coefficient on the beauty rating is 1.3 percentage points, close to the estimate in the second column of Table 3 (1.4 percentage points). Using the beauty gap instead, the coefficient falls to 0.9 percentage points.

Since the major party candidates are not the only ones contesting the election, it is possible to include both the beauty rating and the beauty gap in the regression. In this specification, *Beauty rating* will most likely capture the effect of beauty on the combined voteshare of the major party candidates (relative to minor party and independent candidates), while *Beauty gap* will most likely capture the effect of beauty on one major party candidate relative to the other major party candidate. When both are included, the coefficients remain positive, though not statistically significant. Together, the results in Table 5 suggest that a candidate's voteshare is affected both by his or her absolute beauty (relative to all other candidates) and relative beauty (relative to the other major party candidate running in that electorate).

Table 5: Absolute or Relative Beauty?
Dependent Variable: Voteshare

	[1]	[2]	[3]
Beauty rating	0.013***		0.007
	[0.004]		[0.004]
Beauty gap		0.009**	0.005
		[0.003]	[0.004]
Incumbent	0.164***	0.164***	0.165***
	[0.009]	[0.009]	[0.009]
Female	-0.012	-0.007	-0.011
	[0.009]	[0.009]	[0.009]
Party FE	Yes	Yes	Yes
Observations	270	270	270
R-squared	0.67	0.67	0.67

Note: Robust standard errors, clustered at the electorate level, in brackets. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively. *Beauty Gap* is the difference between the beauty ratings of the major party candidates in an electorate.

Our next concern was that our results might be driven by quirks in our rating process. In the first column of Table 6, we estimated the results using the separate beauty ratings for

each of our four raters. We found that the coefficients on the estimates of each rater were positive, though only statistically significant for the 32 year old female rater.

A related concern is that using Australian raters to assess the beauty of Australian politicians might create an endogeneity problem. If our raters gave a higher or lower beauty rating to well-known politicians, this might induce bias in our estimates.[7] We employ two approaches to address this issue. One is to simply omit the most famous candidates from our sample. In the second column of Table 6, we omit those who we regard as the eight best-known Australian politicians from our sample. We find no evidence that this omission makes any difference to our estimate – the marginal effect of a one standard deviation increase in beauty is 1.4 percentage points, precisely the same as the corresponding estimate for the full sample (Table 3, column 2).

Another approach is to use a beauty rater who cannot distinguish between successful and unsuccessful Australian politicians. As outlined above, we asked a US rater (a 59 year old female) to rate the beauty of all the candidates. In the third column of Table 6, we use her ratings in place of the Australian raters. Using a non-Australian rater, we find that a one standard deviation increase in beauty leads to a 1.1 percentage point increase in voteshare. An alternative approach is to instrument the Australian raters' beauty ratings with the US rater's scores. The results of this specification are shown in the fourth column, and indicate that a one standard deviation increase in beauty leads to a 2.2 percentage point increase in voteshare.

[7] Another possibility is that successful politicians are more likely to 'primp' for their photos in subsequent elections. With only one measure of each politician's attractiveness, we are unable to adjust our estimates to take account of this.

Table 6: Are Beauty Ratings Endogenous?
Dependent Variable: Voteshare

	[1] Individual Raters	[2] Exclude Famous Candidates	[3] Use US rater (reduced form)	[4] Use US rater (IV)
Beauty Rating		0.014***		0.022**
		[0.004]		[0.009]
Rating F 32	0.011**			
	[0.005]			
Rating M 29	0.001			
	[0.005]			
Rating F 57	0.002			
	[0.006]			
Rating M 57	0.005			
	[0.005]			
Rating US-F59			0.011**	
			[0.004]	
Incumbent	0.170***	0.169***	0.164***	0.173***
	[0.009]	[0.009]	[0.008]	[0.010]
Female	-0.015	-0.011	-0.007	-0.018*
	[0.010]	[0.009]	[0.009]	[0.010]
Party FE	Yes	Yes	Yes	Yes
Observations	286	278	286	286
R-squared	0.68	0.67	0.67	0.67
F-test on excluded instrument	-	-	-	91.95 [P=0.000]

Note: Robust standard errors, clustered at the electorate level, in brackets. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively. Famous candidates are defined as Latham, Crean, Beazley, Abbott, Howard, Downer, Costello and Nelson.

Another possibility is that what we observe as beauty is actually a function of the ethnicity or age of the candidates. Since the majority of Australian voters, and three out of four of our Australian beauty raters, are of Anglo-Saxon ancestry, we might worry that we are capturing some form of bias against non-Anglo candidates. To test this, we exclude 23 candidates who do not appear to be of Anglo-Saxon ancestry.[8] The results of this specification are shown in the first column of Table 7. Dropping the non-Anglo candidates has no notable impact on the beauty coefficient, which rises from 1.4 percentage points to 1.5 percentage points.

[8] Coding of candidates age and ethnicity was based purely on candidates' photos, since public information on age and ethnicity is only available for members of parliament (ie. those who received a large share of the vote).

Another possibility is that the effect of beauty is merely capturing differences in age. To test this, we code the approximate age of each candidate, and control for either a linear or quadratic term in age. These results are shown in the second and third columns of Table 7. In both cases, the age coefficients are close to zero and statistically insignificant.

Table 7: Is it Ethnic Discrimination or Age Discrimination?
Dependent Variable: Voteshare

	[1] Excl Non-Anglo Candidates	[2] Control for Age	[3] Control for Age and Age^2
Beauty rating	0.015***	0.014***	0.016***
	[0.004]	[0.004]	[0.005]
Incumbent	0.167***	0.170***	0.169***
	[0.010]	[0.009]	[0.009]
Female	-0.015	-0.013	-0.013
	[0.010]	[0.009]	[0.009]
Age		0.000	0.000
		[0.000]	[0.001]
Age^2			0.000
			[0.000]
Party FE	Yes	Yes	Yes
Observations	263	286	286
R-squared	0.68	0.68	0.68

Note: Robust standard errors, clustered at the electorate level, in brackets. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively.

V. Productivity or Discrimination?

An open question in the literature on the economics of beauty is the extent to which returns to beauty – in this case the increased probability of election – reflect productivity or discrimination.[9] This is a particular issue in the case of politicians, whose job involves significant personal interaction. To the extent that voters believe that more attractive individuals are better able to persuade other legislators of their viewpoint, manage public meetings, and convey their ideas through the media, they may form the view that beautiful politicians are more effective. Alternatively, it may be the case that the success of better-looking politicians reflects nothing more than taste-based discrimination on the part of voters.

[9] For an attempt to disentangle the productivity and discrimination hypotheses, see Mobius and Rosenblat (2006).

To separate these two effects, we use data from previous Australian Election Surveys (AESs) to form measures of the share of apathetic voters in each electorate. Since a typical AES contains only about 12 respondents per electorate, we pool the 1996, 1998 and 2001 surveys to obtain a larger sample.[10] As a proxy for voter apathy, we use three questions:

- 'Would you say you cared a good deal which party won the Federal election or that you did not care very much which party won?' (Cared a good deal/ Did not care very much/ Did not care at all)
  Apathetic respondents are those who chose 'Did not care at all'.
  Electorate mean: 4.8 percent (SD=3.8 percent)
- 'Generally speaking, how much interest do you usually have in what's going on in politics?' (A good deal/ Some/ Not much/ None)
  Apathetic respondents are those who chose 'None'.
  Electorate mean: 4.0 percent (SD=3.3 percent)
- 'And how much interest would you say you took in the election campaign overall?' (A good deal/ Some/ Not much/ None at all)
  Apathetic respondents are those who chose 'None at all'.
  Electorate mean: 4.8 percent (SD=3.8 percent)

Combining the three surveys gives an average of 37 respondents per electorate. The electorate-level means and standard deviations for each question are listed above. Across electorates, the means for the three questions are highly correlated, with bivariate correlations around 0.5.

We use each question to divide the electorates into two halves. 'Apathetic electorates' are defined as those in which a greater than average share of voters are apathetic. 'Engaged electorates' are those in which a smaller than average share of voters are apathetic. We assume that voters in engaged electorates are more concerned with choosing the best

[10] For the two electorates that were created in the 2003 redistribution, the apathetic voter variable takes the mean of the main electorates covering that area in the 2001 election. Thus Bonner is the average of the electorates of Bowman and Griffith, while Gorton is the average of Burke, Calwell and Maribyrnong.

candidate than are voters in apathetic electorates. Thus if voters primarily respond to beauty because of productivity, then voters in engaged electorates should be more responsive to beauty than voters in apathetic electorates. Conversely, if voters primarily respond to beauty because of discrimination, voters in apathetic electorates should be more responsive to beauty than voters in engaged electorates.

The first two columns of Table 8 show the results of these regressions. Using any of the three measures of voter apathy, we find a larger response to beauty in apathetic electorates than in engaged electorates. In apathetic electorates, the effect of a 1 standard deviation increase in beauty on voteshare ranges from 1.6 to 2.4 percentage points. In engaged electorates, the effect of a 1 standard deviation increase in beauty on voteshare is between 0.9 and 1.4 percentage points. However, the difference between the two sets of electorates is only statistically significant in Panel B (where voter apathy is proxied by the share of respondents who have no interest in politics).

In the third column of Table 8, the apathetic voters variable is normed to a mean of zero and a standard deviation of unity, and interacted with a candidate's beauty. For all three voter apathy proxies, the coefficient on the interaction term is positive (suggesting that a 1 standard deviation increase in the share of apathetic voters raises the returns to beauty by 0.1 to 0.6 percentage points). However, the interaction coefficient is only statistically significant in Panel B, and then only at the 10 percent level. Overall, the evidence points towards the hypothesis that the rewards to beautiful political candidates reflect discrimination rather than productivity, but it is more suggestive than conclusive.

Table 8: Returns to Beauty and Voter Apathy
Dependent Variable: Voteshare

Sample:	[1] Apathetic electorates	[2] Engaged electorates	[3] All
Panel A: Apathy Proxied by Share Who Do Not Care Who Wins			
Beauty rating	0.016**	0.013**	0.014***
	[0.006]	[0.006]	[0.004]
Incumbent	0.188***	0.152***	0.170***
	[0.015]	[0.011]	[0.009]
Female	-0.015	-0.009	-0.013
	[0.016]	[0.010]	[0.009]
Beauty rating * Share of apathetic voters			0.001
			[0.004]
Share of apathetic voters			-0.002
			[0.003]
Party FE	Yes	Yes	Yes
Observations	129	157	286
R-squared	0.65	0.72	0.68
Panel B: Apathy Proxied by Share Who Are Not Interest in Politics			
Beauty rating	0.024***	0.009*	0.014***
	[0.007]	[0.005]	[0.004]
Incumbent	0.177***	0.167***	0.171***
	[0.015]	[0.012]	[0.009]
Female	0.001	-0.022**	-0.012
	[0.017]	[0.011]	[0.009]
Beauty rating * Share of apathetic voters			0.006*
			[0.004]
Share of apathetic voters			0.001
			[0.002]
Party FE	Yes	Yes	Yes
Observations	120	166	286
R-squared	0.65	0.71	0.68
Panel C: Apathy Proxied by Share Who Have No Interest in the Election			
Beauty rating	0.017***	0.014**	0.015***
	[0.006]	[0.005]	[0.004]
Incumbent	0.159***	0.175***	0.171***
	[0.013]	[0.013]	[0.009]
Female	0.006	-0.031***	-0.013
	[0.014]	[0.011]	[0.009]
Beauty rating * Share of apathetic voters			0.005
			[0.004]
Share of apathetic voters			0.005*
			[0.003]
Party FE	Yes	Yes	Yes
Observations	131	155	286
R-squared	0.64	0.71	0.68

Note: Robust standard errors, clustered at the electorate level, in brackets. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively. For columns 1 and 2, electorates are split into two

halves. 'Apathetic electorates' are defined as those in which a greater than average share of voters are apathetic. 'Engaged electorates' are those in which a smaller than average share of voters are apathetic. In column 3, the share of apathetic voters is normed to a mean of zero and a standard deviation of unity.

VI. Conclusion and Implications

Using data from the 2004 Australian election, we test whether more attractive candidates are more successful. We find a strong positive relationship between our raters' assessment of beauty and candidates' share of the vote. Holding constant gender, incumbency, and party fixed effects, a one standard deviation increase in a candidate's beauty is associated with a 1.4 percentage point increase in voteshare.

This effect is not only statistically significant; it is also politically salient. In the four Australian federal elections held between 1996 and 2004, one in ten races were decided by a margin of less than 1.4 percentage points.[11] This suggests that one in ten races could have been decided differently if a major party candidate of median beauty was replaced by a candidate at the 84th percentile.

We find that the effects of beauty on voteshare are not uniform. The impact of beauty appears to be larger for male candidates and for challengers. However, we cannot reject the hypothesis that the relationship between beauty and voteshare is linear. Our results are robust to using the beauty gap between candidates in place of absolute beauty ratings, to dropping well-known politicians, to using a US rater in place of our Australian raters, to excluding candidates of non-Anglo Saxon appearance, and to controlling for age.

Given that the media and popular culture devote more attention to feminine beauty than masculine beauty, our finding that the marginal effect of beauty is larger for male candidates than for female candidates may seem surprising. In our view, the most likely explanation is that female beauty carries some negative connotations, such as lower intelligence (the 'dumb blonde syndrome'). In their meta-analysis of the psychology

[11] Using two-party preferred data for the 1996, 1998, 2001 and 2004 elections, we found that 58 of the 595 races were decided by a margin of less than 1.4 percentage points.

literature on beauty and intellect, Jackson, Hunter and Hodge (1995) find that physical attractiveness has a stronger effect on perceptions of males' intellectual competence than females' intellectual competence.[12] Holahan and Stephan (1981) attribute this to a societal stereotype 'that defines high levels of beauty and competence as incompatible traits for women'.

Our finding that beauty matters more for challengers than incumbents is consistent with a model in which attractiveness is used as a substitute for other sources of information about a candidate's competence. At one extreme, if voters have never heard of a candidate before they arrive at the polling place, the candidate's beauty may provide the strongest signal of competence. At the other extreme, voters in the electorate of Prime Minister John Howard, most likely have a good knowledge of Howard as a politician, making it largely irrelevant that his physical beauty rating is lower than 95 percent of all candidates. Consistent with theories of thin-slicing and information shortcuts, beauty will have a smaller impact on voting behavior if constituents already possess substantial information about a candidate.

Lastly, we present some suggestive evidence on the question of whether the effect of beauty represents productivity or discrimination. In electorates where a higher share of voters say that they do not care who wins, that they are not interested in politics, and that they are not interested in the election, the marginal effect of beauty is larger. On the assumption that apathetic voters are more likely to discriminate, and engaged voters are more likely to choose based upon productive characteristics, this suggests that the effect of beauty on voteshare is more likely to reflect discrimination than returns to productivity.

[12] For example, Holahan and Stephan (1981) found that when male subjects were asked to evaluate a well-written essay written by a woman, they gave it a lower rating if the purported author was more attractive.

References

Achen, C.H. and Bartels, L.M. 2004. 'Blind Retrospection: Electoral Responses to Drought, Flu, and Shark Attacks', *mimeo*, Princeton University: Princeton NJ

Alesina, A, Roubini, N and Cohen, G.D. 1997. *Political Cycles and the Macroeconomy*. MIT Press, Cambridge, MA..

Ambady, N and Rosenthal, R. 1992. 'Thin Slices of Expressive Behavior as Predictors of Interpersonal Consequences: A Meta-Analysis'. *Psychological Bulletin*, 111(2):256-274

Banducci, A.A., Thrasher, M., Rallings, C. and Karp, J.A. 2003. 'Candidate Appearance Cues in Low-Information Elections', Paper presented at the Annual Conference of the American Political Science Association, Philadelphia, PA

Bartels, L.M. 1996. 'Uninformed Votes: Information Effects in Presidential Elections'. *American Journal of Political Science* 40(1): 194-230

Berggren, N., Jordahl, H. and Poutvaara, P. 2006. 'The Looks of a Winner: Beauty, Gender and Electoral Success'. IZA Discussion Paper 2311, IZA: Bonn, Germany

Biddle, J.E. and Hamermesh, D.S. 1998. 'Beauty, Productivity, and Discrimination: Lawyers' Looks and Lucre'. *Journal of Labor Economics*, 16(1):172-201.

Borland, J. 2001. 'Beauty down under: Being average is OK', *mimeo*, University of Melbourne

Brennan, J and Lomasky, L. 1993. *Democracy and Decision: The Pure Theory of Electoral Preference*. Cambridge University Press: Cambridge, MA

Cameron, L and Crosby, M. 2000. 'It's the Economy Stupid: Macroeconomics and Federal Elections in Australia.' *The Economic Record*. 76(235): 354-364

Condorcet, M. 1785 [1972]. *Essai sur l'application de l'analyse a la probabilite' des decisions rendues a la pluralite des voix*. Chelsea Publishing Company: New York, NY

Fair, R. 1978. 'The Effect of Economic Events on Votes for President', *Review of Economics and Statistics* 60(2): 159-173

Fair, R. 2004. 'A Vote Equation and the 2004 Election', November 22. Available at http://fairmodel.econ.yale.edu/vote2004/vot1104a.pdf

Gladwell, M. 2005. *Blink: The Power of Thinking without Thinking*. Little, Brown & Company: New York, NY

Hamermesh, D.S. 2006. 'Changing Looks and Changing "Discrimination": The Beauty of Economists', *Economics Letters*, 93(3): 405–412.

Hamermesh, D.S. and Biddle, J.E. 1994. 'Beauty and the Labor Market' *American Economic Review*, 84(5):1174-1194.

Hamermesh, D.S, Meng, X. and Zhan, J. 2002. 'Dress for Success – Does Primping Pay?' *Labour Economics* 9:361-373.

Harper, B. 2000. 'Beauty, Stature and the Labour Market: A British Cohort Study,' *Oxford Bulletin of Economics and Statistics*, 62(s1): 771-800.

Holahan, C.K. and Stephan, C.W. 1981. 'When Beauty Isn't Talent: The Influence of Physical Attractiveness, Attitudes Toward Women, and Competence on Impression Formation', *Sex Roles*, 7(8): 867-876.

Jackman, S and Marks, G. 1994. 'Forecasting Australia Elections: 1993, and All That.' *Australian Journal of Political Science* 29(2): 277-291

Jackman, S. 1995. 'Some More of All That: A Reply to Charnock.' *Australian Journal of Political Science* 30: 347-355

Kinder, D and Kiewiet, D. 1981. 'Sociotropic Politics.' *British Journal of Political Science* 11: 129-61

Klein, M and Rosar, U. 2005. 'Physische Attraktivität und Wahlerfolg. Eine empirische Analyse am Beispiel der Wahlkreiskandidaten bei der Bundestagswahl 2002'. *Politische Vierteljahresschrift*, 46(2): 266-290

Langlois, J.H. et al. 2000. 'Maxims or myths of beauty? A meta-analytic and theoretical review' *Psychological Bulletin* 126(3): 390-423

Leigh, A. 2004. 'Does the World Economy Swing National Elections?', Centre for Economic Policy Research Discussion Paper 485, Australian National University, Canberra

Leigh, A. 2005. 'Economic Voting and Electoral Behavior: How do Individual, Local and National Factors Affect the Partisan Choice?' *Economics and Politics*, 17(2): 265-296

Leigh, A and Wolfers, J. 2006. 'Competing Approaches to Forecasting Elections: Economic Models, Opinion Polling and Prediction Markets' *Economic Record*, 82(258): 325-340

Lewis-Beck, M. 1985. 'Pocketbook Voting in US National Election Studies' *American Journal of Political Science* 29: 348-57

Lupia, A. 1994. 'Shortcuts Versus Encyclopedias - Information and Voting-Behavior in California Insurance Reform Elections' *American Political Science Review* 88(1): 63-76

McDermott, M.L. 1998. 'Race and Gender Cues in Low-Information Elections' *Political Research Quarterly* 51(4): 895-918

Mobius, M.M and Rosenblat, T.S. 2006. 'Why Beauty Matters' *American Economic Review*, 96(1): 222-235

Mocan, N and Tekin, E. 2006. 'Ugly Criminals' NBER Working Paper 12019. NBER: Cambridge, MA.

Mulligan, C.B. and Hunter, C.G. 2003. 'The Empirical Frequency of a Pivotal Vote' *Public Choice* 116(1-2): 31-54

Pfann, G.A., Bosman, C.M., Biddle, J.E., and Hamermesh, D.S. 2000. 'Business Success and Business Beauty Capital' *Economic Letters*, 67(2), 201-207

Todorov, A., Mandisodza, A.N., Goren, A. and Hall, C.C. 2005. 'Inference of Competence From Faces Predict Electoral Outcomes'. *Science*, 308:1623-1626

Wolfers, J. 2002. 'Are Voters Rational? Evidence From Gubernatorial Elections'. Stanford GSB Research Paper Series 1730

Wolfers, J and Leigh, A. 2002. 'Three Tools for Forecasting Federal Elections: Lessons from 2001', *Australian Journal of Political Science* 37(2): 223-40