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Barking Up the Wrong Tree: Why Bo Didn't Fetch Many Votes for Barack Obama in 2012

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FEATURES

Barking Up the Wrong Tree: Why Bo Didn't Fetch Many Votes for Barack Obama in 2012

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ABSTRACT   In "The Dog that Didn't Bark: The Role of Canines in the 2008 Campaign," Diana Mutz (2010) argues that dog ownership made voters significantly less likely to vote for Barack Obama in the 2008 presidential election. We examine this claim further. Although President Obama has owned a dog since shortly after his 2008 election, we argue that Bo's presence most likely did little to improve his owner's chances of being reelected in 2012. Rather, the apparent significance of dog ownership uncovered by Mutz is due largely to key variables being omitted from the analysis. Using the same data, we show that Obama didn't so much have trouble with dog owners in 2008 as he had trouble with conservative, rural, Southern whites, who, for reasons we examine, are more likely than other Americans to own dogs. Accordingly, we suspect that Bo failed to boost Obama's vote tally in 2012. While we recognize the tongue-in-jowl tone of portions of Mutz's article, this tale is an important one, and is consistent with recent research linking racial attitudes to levels of support for Barack Obama. We also argue that while scholars are often wise to include control variables such as "South" in studies of political attitudes and behavior, it is important to consider the variety of politically relevant characteristics that such variables may be capturing.

Although Barack Obama's victory in the 2008 presidential election was historic in many ways, his margin of victory was relatively underwhelming. After a grueling primary election battle, many political observers expected the general election to be a walk in the park for the Democratic nominee. An incumbent president facing unprecedented levels of disapproval, two unpopular wars, and a severe economic crisis all came together to aid Obama in the general election. Yet when the votes were tallied, Obama's victory fell short of the landslide that some had predicted (Lewis-Beck, Tien, and Nadeau 2010). Why did the Obama campaign seem to underperform in the general election?

Some scholars have suggested that factors such as racial attitudes (Lewis-Beck and Tien 2009; Lewis-Beck, Tien, and Nadeau 2010; Pasek et al. 2009; Tesler and Sears 2010; Tien, Nadeau, and Lewis-Beck 2012) and religion (Barreto, Redlawsk, and Tolbert 2009; Hollander 2009) played important roles in limiting Obama's victory margin. Although race and religion may have been important, Diana Mutz (2010) has proposed a particularly elegant and compelling theory that could provide an explanation for the lack of an Obama landslide. In a recent issue of *PS*, Mutz argues that Obama was penalized to a significant degree because he, quite literally, did not have a dog in the race. The fact that the Obama

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Figure 1
Bo Obama on the Campaign Trail

Photo courtesy of whitehouse.gov

family did not own a dog during the campaign seems to have depressed his level of support. To make matters worse, Obama unintentionally emphasized this deficiency by publicly vowing to fulfill his daughters' wishes for a dog after the campaign had run its course.[1]

Although some might scoff at Mutz's thesis, her findings regarding Obama's failure to win over the canine constituency hold up, even when controlling for a doggone extensive list of factors known to affect voting decisions. Even when partisanship, ideology, perceptions of the economy, and socioeconomic factors are accounted for, dog ownership remains a statistically and substantively significant predictor of both evaluations of Obama and vote choice. Although we take Mutz's article to be, at least to a substantial extent, tongue in jowl[2]—and a real howler at that—a strong case can be made that Team Obama ought to have thrown dog owners more of a bone in 2012. After all, for a president, years in office are a lot like dog years, and a great deal can happen in a single four-year term; Obama's relatively easy victory in 2008 must have seemed like ancient history to his campaign staff. His honeymoon period long over, President Obama had to defend his leadership in light of an economy that is still struggling, and the bark of conservative Americans certainly increased in volume as the election drew nearer. If Mutz's conclusions are on the mark, although President Obama managed to win reelection in 2012, a more successful appeal to the canine constituency may have left him much less likely to be banished to the electoral doghouse.

As the as the general election campaign heated up during the dog days of summer, might it have been prudent for President Obama and his advisers to more aggressively pursue the support of dog-lovers? Some anecdotal evidence shows that Team Obama was aware of Bo's potential utility as a campaigner. In 2011, President Obama took Bo on a Christmas shopping

trip that received significant media attention, and Bo was also prominently featured on the Obamas' holiday cards and the invitation to the 2012 White House Easter Egg Roll (see figure 1).

Given what we know about canines and campaigns, though, should Obama's campaign staff also have chastised him when he failed to take Bo out to the Rose Garden with sufficient frequency? If, on the campaign trail, Obama stopped to eat tamales in Texas (preferably with the cornhusks removed[3]), should he have been sure to ask for a doggy bag while the cameras were rolling? When discussing the time he spent in Chicago, might the president have been well-advised to sneak in a reference to the city's famous hot dogs? Should Team Obama have developed a foreign policy plank that highlighted America's ties with Portugal, home of Bo's ancestors? While Portuguese water dogs have, historically, been working dogs and friends of fishermen, maybe the Obama family should have supplemented Bo's presence by acquiring a second dog of a variety more familiar to rural Americans, lest the criticism of "that dog don't hunt!" be levied in key battleground states.[4] Perhaps most important, the Obama campaign may have been well served by mounting a more dogged attack on Mitt Romney's own pooch problem (see figure 2).[5]

As Mutz noted, "Democrats should be wagging their tails over the arrival of Bo Obama, who could play well to potential swing voters in 2012." Obama now has a dog to call his own, and hence, *ceteris peribus*, support for Obama should have increased relative to 2008. But did that happen? We think not. We argue that, in all likelihood, Bo did not fetch many votes for his owner. Indeed, we show that the apparent significance of dog ownership is largely due to key variables omitted from Mutz's analysis. Although we find much to admire in Mutz's analysis, she is probably barking

Figure 2
Mitt Romney's Pooch Problem

Pat Bagley, Cagle Cartoons, Inc.

up the wrong tree when it comes to attributing the "dog gap" to dog ownership itself. After sniffing around, we think we are on the trail of the root causes of the dog gap, and these have little to do with Bo, Spot, Spuds, Fido, or Lassie. If Obama's election strategists were counting on a bit of Bo-mentum to increase the president's chances of reelection, they set themselves up to be disappointed. Bo may have barked, but Team Romney should not have worried too much about being bitten.[6]

In reanalyzing Mutz's data, we show that Obama did not have so much trouble with dog owners in 2008 as he had trouble with conservative, southern whites, who, for reasons we discuss, are more likely than other Americans to own dogs. Whereas some may feel that exploring links between pet ownership and political attitudes and behavior is for the birds, the tale[7] is an important one, and is consistent with recent research linking racial attitudes to levels of support for Barack Obama (Lewis-Beck and Tien 2009; Pasek et al. 2009; Tesler and Sears 2010). We also argue that while scholars are often wise to include control variables such as "South" in studies of political attitudes and behavior, it is important to consider the variety of politically relevant characteristics that such variables may be capturing.

THE DOG GAP: THEORY AND EVIDENCE

Mutz proposes two potential explanations for the dog gap: a group-identification theory and a congruency-oriented theory. On one hand, according to the group-identification theory, dog owners identify with, and hence feel an affinity for, other dog owners. The congruency-based theory, on the other hand, suggests that if members of the electorate appreciate the characteristics of a certain type of pet, such as loyalty or tenacity, those citizens reward candidates who share those qualities. Mutz finds that, even when a myriad of relevant factors affecting public opinion are controlled for, dog owners were less supportive of Barack Obama than respondents who did not own dogs. This can be been seen in table 1, where Mutz's results regarding the effects of dog ownership, both on respondents' support

Table 1
Replication of Mutz's (2010) Models

	FEELING THERMOMETER[1]		VOTE CHOICE[2]	
	[1] **Original**	**[2]** **Replication**	**[3]** **Original**	**[4]** **Replication**
Political Predispositions				
Republican	−25.63*** (2.50)	−26.80*** (0.85)	−1.36*** (0.18)	−2.09*** (0.08)
Democrat	22.68*** (2.49)	22.76*** (0.83)	1.34*** (0.18)	1.63*** (0.08)
Ideology	−9.29*** (0.28)	−8.36*** (0.26)	−0.56*** (0.02)	−0.86*** (0.03)
Economic Perceptions				
U.S. Economy	−7.97*** (0.49)	−6.37*** (2.53)	−0.59*** (0.05)	−0.81*** (0.29)
Family Finances	−3.53*** (0.34)	−4.19*** (0.94)	−0.20*** (0.03)	−0.32*** (0.11)
Demographics				
Age	−0.07** (0.02)	0.06 (0.02)	0.00 (0.00)	0.00 (0.00)
Education	1.45*** (0.21)	0.75*** (0.20)	0.09*** (0.02)	0.14*** (0.02)
Gender (Female)	1.30* (0.65)	0.86 (0.61)	0.02 (0.06)	−0.07 (0.07)
Income	0.18* (0.09)	−0.02 (0.09)	0.02*** (0.01)	−0.01*** (0.01)
Nonwhite	21.36*** (0.84)	14.61*** (0.79)	1.34*** (0.08)	1.18*** (0.09)
Married	−2.08* (0.80)	−1.08 (0.71)	−0.20** (0.07)	−0.11** (0.08)
Own Home	−0.20 (0.77)	−0.33 (0.83)	0.01 (0.07)	0.02 (0.10)
Minors Present	0.50 (0.84)	−1.52 (0.96)	−0.06 (0.07)	−0.11 (0.11)
Own Gun(s)	−5.75*** (0.68)	−4.55*** (0.65)	−0.46*** (0.06)	−0.45*** (0.07)
Metro/Rural	−0.10 (0.93)	0.00 (0.89)	−0.04 (0.08)	−0.03 (0.10)
Religiosity	−0.31 (0.22)	−0.52 (0.21)	−0.03 (0.02)	−0.08 (0.02)
Born Again	−2.53** (0.74)	−1.48* (0.71)	−0.34*** (0.07)	−0.31*** (0.08)
Household Size	−0.59* (0.29)	−0.63* (0.33)	−0.04 (0.03)	−0.06 (0.04)
Pet Ownership				
Dog	−3.09*** (0.66)	−2.46*** (0.63)	−0.17* (0.06)	−0.15* (0.07)
Cat	−0.47 (0.68)	−0.04 (0.64)	0.07 (0.06)	0.11 (0.07)
Horse	−2.24 (2.41)	−4.60 (2.33)	−0.27 (0.22)	−0.43 (0.27)
Reptile	−1.20 (1.93)	−1.63 (1.84)	−0.22 (0.17)	−0.38 (0.20)
Ferret/Gerbil	−0.70 (1.62)	−0.40 (1.54)	−0.02 (0.14)	0.07 (0.17)
Bird	1.54 (1.45)	0.44 (1.41)	0.11 (0.12)	0.12 (0.16)
Fish	−0.71 (0.94)	0.16 (0.90)	−0.06 (0.08)	−0.21* (0.10)
Other Pet	2.61 (1.67)	−0.05 (1.59)	0.15 (0.15)	0.13 (0.19)
Constant	46.80*** (4.16)	44.93*** (2.58)	2.72*** (0.35)	4.05*** (0.29)
R[2]	0.56	0.54	0.51	0.56
N	14,455	12,084	15,189	10,861

Note: Standard errors are shown in parentheses.

[1]OLS regressions

[2]Logistic regressions

***p < 0.001; **p < 0.01; *p < 0.05

for Obama relative to their support for McCain and on respondents' voting decisions, are presented in columns 1 and 3.

The coefficients on the dog ownership indicator variables are negative and statistically significant, and the magnitudes of the effects are substantial. Moreover, owners of pets other than dogs did not reward (or punish) Obama as compared to petless survey respondents, a finding which leads Mutz to conclude that the evidence points in the direction of the group-identification theory. Furthermore, Mutz shows that the effect of dog ownership extends beyond thermometer-style approval scores to presidential voting decisions. Our replications of Mutz's results are shown in columns 2 and 4 of table 1.[8]

As is the case with many young theories, the content of the group-identification theory is rather thin. For example, although the owner of a dog of the same *breed* as the candidate's might be expected to display a particularly strong affinity for that candidate, purebreds play the same role in Mutz's theory as mutts. We do not criticize Mutz on this front, as we feel that imaginative and creative scholars should not be kept on too short a leash when hunting for explanations in previously uncharted territory. We think, however, that as Mutz's theory is such a parsimonious one, empirical tests of the implications of that theory may be particularly vulnerable to omitted variable bias.

The aim of our analysis is not simply to explain away the importance of dog ownership in determining levels of support for candidates, but rather to better understand the variables that were indeed critical to support for Barack Obama, and evaluate how those factors likely played out in 2012. First, we address regional differences in the effects of dog ownership. Then, we more fully incorporate racial attitudes into the analysis. Subsequently, we discuss the issues of urban-rural divisions and differences between hunters and nonhunters, which are related to both dog ownership and cross-regional cultural differences that drive differences in support for Barack Obama.
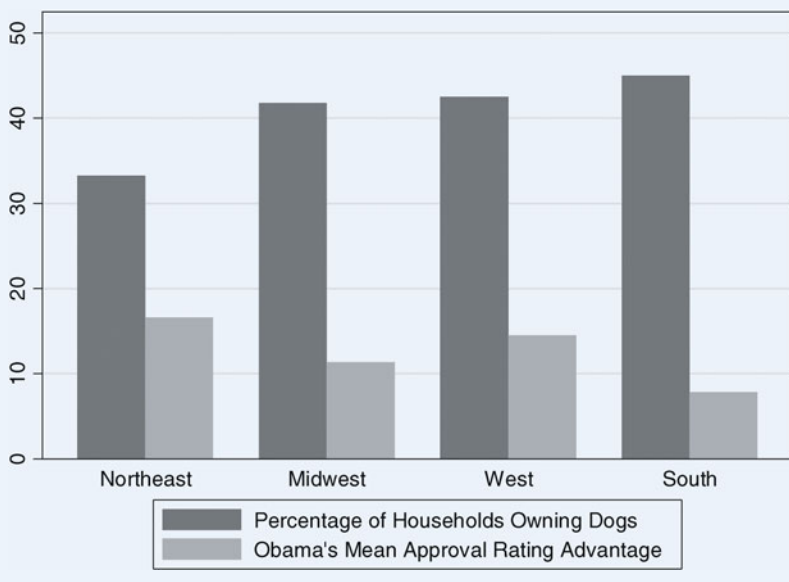
REEXAMINING THE CANINE CONSTITUENCY

Regional Differences in the Dog Gap

Mutz's models of the dog gap should be applicable to dog owners in a variety of circumstances. More specifically, given Mutz's theory, we see little reason to expect that the effect of dog ownership should vary systematically with the region of the country in which a respondent lives. Although the list of variables included in Mutz's models is comprehensive, the lack of a control for region is what originally started us chasing after alternative explanations for the dog gap. Like many scholars of political science, our graduate school experiences included Pavlovian training in the detection

Figure 3

Dog Ownership and Obama's Approval Rating Advantage by Region

Percentage of Households Owning Dogs
Obama's Mean Approval Rating Advantage

mean advantage over John McCain in thermometer scores in each region. Rates of dog ownership clearly vary with geographical location. Using census region as the geographical unit, dog ownership is most common in the South and least common in the Northeast.[10] In addition, regional variation in support for Barack Obama is obvious, with the level of support for Obama being strongest in the Northeast, where dog ownership is least common, and weakest in the South, where dog ownership is most common. Of course, if dog ownership really does drive distaste for Obama, this pattern should not be surprising. We believe, however, that characteristics of the South other than dog ownership, and beyond commonly cited influences on public opinion and behavior such as partisanship, depress support for Obama.

Before discussing these characteristics, we present a modified version of the first of Mutz's models that includes dummy variables representing census regions in the first column of table 2.

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of potential omitted variable bias. Moreover, as we all know, every dog has its day, and in a similar way, almost every model of American public opinion or voting behavior has its "South" dummy variable. Could Southerners be both more likely to have dogs, and, for reasons not directly related to dog ownership itself, less likely to support Obama?

Figure 3 shows the percentage of dog owners by census region, as estimated from the National Annenberg Election Survey (NAES) data that Mutz uses in her analysis,[9] along with Obama's

The Northeast is the omitted reference category. We also include a more precise measure of racial identification in this model; this is particularly important given Obama's status as the first black major-party presidential candidate. The results show that region has a significant impact on Obama's favorability, with the coefficient on South being strongly negative and statistically significant, and the coefficients on Midwest and West being significant in the positive direction.[11] Even when controlling for partisanship and ideology, region matters. Moreover, as shown by the

Table 2

Alternative Specifications of Mutz's (2010) Models: Region, Race, and Obama Feeling Thermometer Advantage

	[1] REGIONS AND RACES	[2] NORTHEAST	[3] SOUTH	[4] MIDWEST	[5] WEST
Political Predispositions					
Republican	−26.42*** (0.84)	−26.00*** (2.04)	−27.41*** (1.56)	−27.05*** (1.52)	−23.99*** (1.72)
Democrat	21.02*** (0.83)	14.91*** (1.89)	20.16*** (1.57)	25.15*** (1.52)	20.96*** (1.70)
Ideology	−8.32*** (0.26)	−10.25*** (0.64)	−7.65*** (0.46)	−7.43*** (0.47)	−9.27*** (0.54)
Economic Perceptions					
U.S. Economy	−6.66** (2.50)	−1.76 (5.65)	−13.48** (4.52)	−5.21 (4.65)	−3.87 (5.55)
Family Finances	−4.19*** (0.93)	−6.03* (2.64)	−3.29* (1.62)	−4.64** (1.69)	−3.71* (1.88)
Race					
Black (Non-Hispanic)	27.30*** (1.09)	23.26*** (2.71)	31.73*** (1.75)	24.69*** (2.15)	20.61*** (2.83)
Other (Non-Hispanic)	0.48 (2.10)	15.06* (6.05)	−8.07 (4.98)	−7.32 (5.29)	1.87 (2.78)
Hispanic	5.90*** (1.27)	12.44*** (3.71)	5.92*** (2.20)	10.37** (3.49)	2.29 (1.96)
Two or More Races (Non-Hispanic)	6.80** (2.07)	9.18 (5.27)	5.34 (3.63)	10.66* (4.16)	2.79 (3.96)
Region					
South	−2.27* (0.89)	—	—	—	—
Midwest	2.04* (0.89)	—	—	—	—
West	1.86* (0.94)	—	—	—	—
Dog Ownership	−1.79** (0.63)	−1.85 (1.60)	−2.12 (1.15)	−0.68 (1.15)	−2.58* (1.28)
Constant	44.45*** (2.61)	55.87*** (6.20)	43.17*** (4.71)	37.45*** (4.72)	48.40*** (5.28)
R^2	0.55	0.50	0.58	0.56	0.57
N	12,084	2,094	3,768	3,533	2,686

Notes: Demographic and other pet ownership variables from the model are not presented here. Standard errors are shown in parentheses.

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$

reduction in magnitude of the coefficient on dog ownership in this modified model, regional differences explain a significant portion of the variance in rates of support for Obama that was previously attributed to the influence of dog ownership. The coefficient on the dog ownership indicator is reduced from −2.46 (in our original replication of Mutz's model) to −1.79, a 27% drop in the purported effect.[12]

To further highlight this point, we present regression results that predict Obama's support levels in each census region individually in columns 2 through 5 of table 2. Here, we see that the effect of dog ownership varies across the different regions. Indeed, in the Northeast, a region in which Barack Obama did well in 2008, the effect of dog ownership on support for Obama is not statistically significant, and is much smaller in magnitude. The effect of dog ownership is strongest in the West, followed by the South, then the Northeast, and finally the Midwest, where the coefficient on the dog ownership indicator is small and far from being statistically significant. Why is this?

What explains the significance of the South dummy, and of the regional dummies more generally? At least two factors contribute to the importance of region. First, for a given self-placement on the liberal-conservative ideology scale, respondents from one census region tend to be more or less conservative in terms of policy preferences than respondents in other regions. The ideological self-placement question provides an imperfect measure of what we refer to as operational ideology,[13] which we conceive of as the extent to which respondents approve of specific liberal policies and policy goals. Including region in the analysis effectively allows for more accurate measurement of the operational ideologies of respondents. Second, the ideology variable based on self-placement fails to sufficiently tap the racial conservatism that is more pronounced in the South than in other regions of the country.

We certainly are not the first scholars to note that the standard 7-point ideology scale is an imperfect measure of ideology, particularly if a researcher draws inferences related to the types of policy positions that citizens support. The use of an issue-based ideological scale can reduce measurement error (Ansolabehere, Rodden, and Snyder 2008) and potentially reduce bias. The NAES data allows us to create such a scale. We included survey questions regarding respondents' opinions on the role of government, foreign policy approaches, immigration control, abortion, and gay marriage in a factor analysis to generate a measure of operational ideology, with more positive numbers representing more operationally conservative respondents. As expected, among respondents who place themselves at a given location on the ideology scale, those from the South are more conservative in terms of average operational ideology than respondents from the Northeast and the West for every category on the 7-point scale, and, in most cases, more operationally conservative than respondents from the Midwest, as well. For example, among white respondents classifying themselves as slightly conservative, the mean operational ideology score was 0.52 in the South, 0.40 in the Midwest, 0.32 in the West, and 0.28 the East.[14]

What does the correlation between region and operational ideology have to do with dogs? The answer is straightforward: region is correlated not only with dog ownership but also with operational ideology, and operational ideology is also strongly correlated with support for Barack Obama. The absence of region in Mutz's original regression equation causes omitted variable bias that overestimates the importance of dog ownership; when operational ideology is also included in the analysis, the importance or region declines, suggesting that the region dummies tap, at least to a substantial extent, differences in operational ideology not captured by the self-placement-based ideology measure.[15]
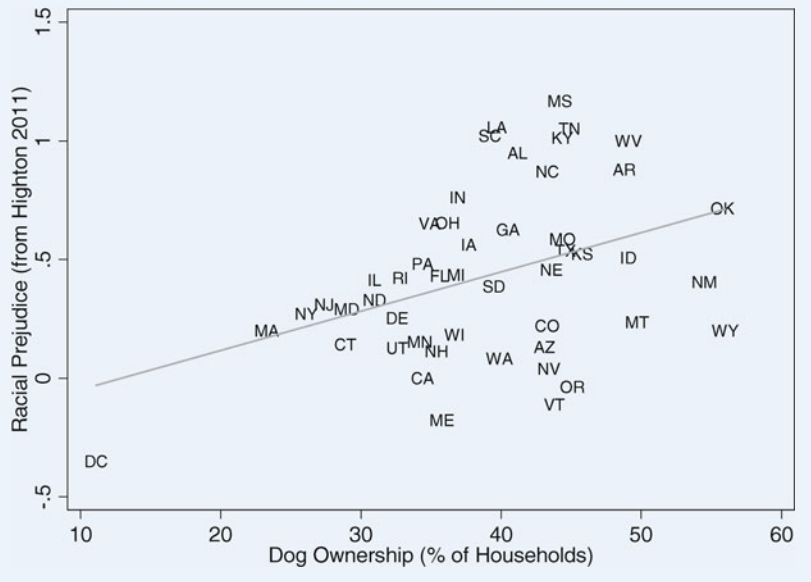
Race and the Dog Gap

Region is correlated not only with ideology (both self-identified and operational), but also with race. Moreover, in 2008, the presence of a black candidate on the Democratic presidential ticket highlighted the possibility that attitudes related to racial identity would play a major role in deciding the election. While most American politics scholars would likely agree that racial issues are an important part of the political landscape, the results of studies designed to determine whether white voters discriminate against black candidates in a direct way have been decidedly inconclusive, partially because of the correlations between racial attitudes and other politically important variables such as ideology (Hutchings and Valentino 2004). Evidence of the persistence of racial prejudice of other sorts, however, is much more consistent and plentiful (see, for example, Hurwitz and Peffley 1997 and Kuklinski, Cobb, and Gilens 1997). What role, if any, did race play in the election of Barack Obama, and what does the answer to that question have to do with dogs?

As previously mentioned, several studies have already established that racial attitudes resulted in Barack Obama's margin of victory being smaller than it would have been if race had not played a role. In one such study, Benjamin Highton (2011) shows that even when numerous controls are used, the racial attitudes of white voters are strongly correlated with Obama's state-level vote shares. Although individual-level data is often preferable to aggregate data, regional differences are clearly apparent in Highton's state-level measure of racial prejudice, which is based on respondents' levels of agreement with a statement that it is acceptable for blacks and whites to date. If this measure of prejudicial attitudes is correlated with state-level dog ownership rates, it would suggest that the dog ownership coefficient in Mutz's models might also be biased due to dog ownership unintentionally tapping regional differences in racial attitudes. Indeed, the correlation between dog ownership and Highton's state-level measure of prejudice is a strong 0.40, and statistically significant. Figure 4 plots state-level racial prejudice versus the percentage of households in a state that own dogs. The concentration of Southern states in the upper-right portion of the graph is striking. The cluster of Mountain West states in the lower-right section is also of interest. Were it not for high levels of dog ownership in these states, which is likely due to the large rural areas in these states, the slope of the best-fit line would be steeper, and the relation-

Figure 4
State-Level Racial Prejudice vs. Dog Ownership

ship between racial attitudes and dog ownership would be even stronger.

Of course, Highton's measure of racial prejudice is not likely to perfectly capture racial attitudes. Is there any additional evidence that the dog ownership variables in the Mutz's models might be capturing something other than the importance of dog ownership? As it turns out, there is. If the theory Mutz puts forth is true, it is reasonable to expect that dog owners would not only punish candidates who do not own dogs, but would also reward candidates who do have canine companions. To see if this was the case in 2008, we decoupled the Obama and McCain favorability ratings and estimated models of approval for each candidate separately.[16] Did respondents reward John McCain for owning not just one, but 14 dogs (Stregowski 2008) during his candidacy?[17] The answer is no. When controlling for region and using our more precise measure of racial identification, the coefficient on dog ownership in the model of McCain approval ratings is positive, but small in magnitude, and much smaller than its standard error. The usefulness of dog ownership in predicting Obama's advantage over McCain is almost entirely due to evaluations of Obama.

Perhaps all else equal, dog owners penalize Democratic candidates for some reason other than the lack of a dog or regional differences in ideology and racial attitudes. We also examined this possibility, as respondents in the NAES survey were asked who they voted for in the 2004 presidential election contest between then-president George W. Bush and John Kerry. As it turns out, the coefficient on dog ownership in a logit model predicting votes for Kerry, a dog owner, is actually positive, as it was in the case of McCain, but very small in magnitude and not statistically significant. Dog owners did not reward Kerry to any significant degree for owning Cym, a German shepard, and they did not punish him to any unusual degree for being a Democrat. While many differences exist between the candidacies of John Kerry and Barack Obama, the race of the two candidates is a prominent one. Although the failure of dog ownership to predict votes for John Kerry is not direct evidence of our thesis that dog ownership is

Table 3

Alternative Specifications of Mutz's (2010) Models: Racial Attitudes, Ideology and Obama Feeling Thermometer Advantage

	[1] OPERATIONAL IDEOLOGY	[2] RACIAL ATTITUDES	[3] FULL MODEL
Political Predispositions			
Republican	−19.68*** (0.91)	−23.94*** (0.90)	−18.95*** (0.91)
Democrat	14.81*** (0.90)	19.32*** (0.91)	14.91*** (0.90)
Ideology (Self-Placement)	−4.11*** (0.32)	−9.14*** (0.29)	−4.10*** (0.32)
Economic Perceptions			
U.S. Economy	−4.83　(2.90)	−5.12　(2.91)	−3.35　(2.90)
Family Finances	−2.67** (1.02)	−4.60*** (1.03)	−2.78** (1.01)
Region			
South	−2.10* (0.98)	−2.72** (0.99)	−1.89　(0.97)
Midwest	3.03** (0.95)	2.13* (0.96)	3.02** (0.94)
West	1.05　(1.02)	1.66　(1.04)	0.55　(1.02)
Dog Ownership	−1.27　(0.68)	−1.99** (0.69)	−1.63* (0.68)
Operational Ideology	−16.87*** (0.51)	—	−16.32*** (0.51)
Racial Attitudes	—	3.09*** (0.21)	2.66*** (0.20)
Constant	27.17*** (2.93)	46.60*** (2.93)	29.65*** (2.92)
R^2	0.58	0.53	0.58
N	9,018	9,564	8,886

Notes: Demographic and other pet ownership variables from the model are not presented here. The models only include white respondents. Standard errors are shown in parentheses.

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$

factors correlated with both dog ownership and support for Obama may allow dog ownership to maintain its statistical significance. Lastly the coefficients could simply be statistically anomalies, which, as Mock and Weisberg (1992) note, are not always as rare as we might believe.[19]

Region, Race, and Voting Decisions

As should be clear from the previous discussion, the effect of the dog ownership variable in Mutz's model of Obama's advantage in approval ratings is, at least, partially due to the correlation between dog ownership and other important variables that affect approval of Obama, but are not included in her analysis. The importance of omitting these variables becomes even clearer when we analyze the voting decisions of respondents. As table 4 shows, after region and racial attitudes are accounted for, dog ownership no longer has a statistically significant effect on the likelihood that a respondent voted for Barack Obama in 2008. Moreover, among white respondents, the coefficient for dog ownership remains insignificant when operational ideology and racial attitudes are added to the models. In contrast, the importance of region, racial attitudes, and operational ideology are clear.

Although we argue that the regional indicators in our models are important because they tap differences in ideology and racial attitudes between regions of the country, we are remiss if we fail to comment on the fact that two of three regional dummies remain significant even when controls for racial attitudes and operational ideology are included in the analysis. Why is region still important? Several likely explanations emerge. First, regional differences likely exist in many politically relevant variables that are still not included in our models of candidate approval and voting behavior during the 2008 presidential election campaign. We have included the major relevant factors, but undoubtedly we have missed something, and we have also omitted some variables for the sake of (relative) parsimony. We suspect, for instance, most of what remains of the coefficient on dog ownership persists because no indicator variable for hunters was included in the analysis. Hunting and dog ownership are positively correlated at the state and regional levels, and hunting is negatively correlated with operational liberalism, racial liberalism, Democratic identification, and state-level support for Obama.[20]

Second, the importance of region is often interactive. In table 2 the effect of many independent variables clearly varies by region.[21] Being Hispanic, for example, makes more of a difference in approval ratings in the Northeast than it does in the South. If

partially tapping racial attitudes in Mutz's models, it is consistent with our argument.

Among scholars who have examined the racial aspect of the 2008 election at the individual level, Lewis-Beck, Tien, and Nadeau (2010) find that even when controlling for ideology and other relevant factors, those respondents who felt that Obama would favor blacks if elected president were not only less likely to vote for him, but also less likely to convert dissatisfaction with the poor economy into electoral support for Obama.[18] In a similar fashion, we incorporated an individual-level measure of racial attitudes into our analysis and observed how it affected both approval of Obama and the coefficients on dog ownership, racial identification, and region. Respondents were asked to rate the characteristics of racial groups (including their own) on a scale from 0 to 100. We created a racial attitudes measure using a principle components analysis of the differences between whites' ratings of their own racial group and their ratings of blacks. The characteristics included whether these racial groups were hardworking, intelligent, and trustworthy. The results of our models that include these individual-level measures of operational ideology and racial attitudes are in table 3.

The first column in table 3 shows that, in addition to self-placed ideology, operational ideology also significantly affects evaluations of Obama. In this model, the effect of dog ownership is not significant. The next two models find significant effects for our racial attitudes measures, while dog ownership shows a significant, but greatly reduced, negative effect among white respondents. Perhaps what remains of the dog gap does actually depend on dog ownership itself. Alternatively, imperfect measurement of

Table 4

Alternative Specifications of Mutz's (2010) Models: Region, Race and Vote Choice

	[1] REGIONS AND RACES	[2] OPERATIONAL IDEOLOGY	[3] RACIAL ATTITUDES	[4] FULL MODEL
Political Predispositions				
Republican	−2.05*** (0.08)	−1.73*** (0.10)	−2.00*** (0.09)	−1.69*** (0.10)
Democrat	1.55*** (0.08)	1.26*** (0.10)	1.50*** (0.09)	1.30*** (0.10)
Ideology (Self-Placement)	−0.88*** (0.03)	−0.50*** (0.04)	−0.90*** (0.04)	−0.50*** (0.04)
Economic Perceptions				
U.S. Economy	−0.78** (0.30)	−0.72 (0.38)	−0.63 (0.34)	−0.62 (0.39)
Family Finances	−0.35** (0.11)	−0.21 (0.15)	−0.32* (0.13)	−0.20 (0.15)
Race				
Black (Non-Hispanic)	3.07*** (0.22)	—	—	—
Other (Non-Hispanic)	0.24 (0.24)	—	—	—
Hispanic	0.43** (0.14)	—	—	—
Two or More Races (Non-Hispanic)	0.88*** (0.23)	—	—	—
Region				
South	−0.39*** (0.10)	−0.29* (0.12)	−0.34** (0.11)	−0.27* (0.13)
Midwest	0.16 (0.10)	0.31** (0.12)	0.18 (0.10)	0.31** (0.12)
West	0.12 (0.11)	0.11 (.13)	0.15 (0.12)	0.08 (0.13)
Dog Ownership	−0.10 (0.07)	−0.10 (0.09)	−0.10 (0.08)	−0.12 (0.09)
Operational Ideology	—	−1.85** (0.07)	—	−1.83*** (0.07)
Racial Attitudes	—	—	0.20*** (0.03)	0.15*** (0.03)
Constant	4.07*** (0.30)	2.94*** (0.38)	4.25*** (0.34)	3.04*** (0.39)
Psuedo-R^2	0.56	0.59	0.54	0.59
N	10,861	8,156	8,631	8,043

Notes: Demographic and other pet ownership variables from the model are not presented here. Models 2–4 include white respondents only.

Standard errors are shown in parentheses. ***$p < 0.001$; **$p < 0.01$; *$p < 0.05$

interactive effects had been more fully incorporated in our models, the analysis would be less straightforward, but the importance of the regional dummies would likely have been reduced.

Third, survey measures are imperfect. The standard 7-point ideology scale used by Mutz and countless other scholars (including ourselves) means different things to people from different regions of the country. The inclusion of regional dummies helps the model make up for some of the imprecision and biases that, unfortunately, are common in social scientific research, and perhaps particularly so in survey research. We strongly suspect that the regional dummies we use pick up on regional differences in many of the independent variables in our models.[22] If we had better measures of all of these variables, the importance of the regional indicators would likely be further decreased.

What, if anything, does our analysis say about the frequent use of variables like the South dummy in political research? We argue that the answer is context-dependent. Including regional indicator variables in analyses of American politics often decreases bias. In short, it is wise to use such dummies. However, simply including a South dummy in a regression analysis and reasoning that "the South is just different" is less than theoretically satisfying, especially given that the political effects of living in the South may work very differently for members of different racial, ethnic, religious, and political groups. We suggest that scholars identify variables in their analyses, such as dog ownership, that may dis-

play cross-regional variation. We also suggest researchers carefully consider interacting regional indicator variables with other key explanatory variables. Lastly, we note that developing better measures of politically relevant variables is particularly important when trying to avoid biases related to regional political differences.

WHO OWNS DOGS AND WHY?

Why are there regional differences and racial differences in dog ownership in the first place? According to the American Veterinary Medical Association (AVMA), 37.2% of American households included a dog in 2006 (AVMA 2007). Little existing literature explains why some people seek canine companionship while others do not,[23] but clear geographic and demographic patterns emerge. Along with the Mountain states, the Deep South (the Census' East South Central and West South Central regional divisions) has the highest rates of dog ownership, while the Mid-Atlantic and New England states have the lowest rates. This geographic pattern of canine affinity mirrors political patterns evident in the American electorate: "Red States" show high dog ownership rates and "Blue States" show low rates. Dog ownership also displays demographic patterns that coincide with political attitudes that favor conservative and Republican candidates. According to the NAES, a large gap in dog ownership exists between black and white respondents. People living in rural areas,

Determinants of Dog Ownership

	[1]		[2]	
Political Predispositions				
Republican	−0.23	(0.19)	−0.24	(0.25)
Democrat	−0.27	(0.20)	−0.31	(0.25)
Ideology (Self-Placement)	0.03	(0.03)	0.01	(0.04)
Operational Ideology	0.05	(0.04)	0.06	(0.03)
Demographics				
Age	−0.02***	(0.00)	−0.02***	(0.00)
Education	−0.09***	(0.01)	−0.11***	(0.02)
Gender (female)	0.24***	(0.04)	0.26***	(0.04)
Income	0.01	(0.01)	0.01	(0.01)
Black (Non-Hispanic)	−0.85***	(0.07)		
Other (Non-Hispanic)	−0.85***	(0.16)		
Hispanic	−0.04	(0.07)		
Two or More Races (Non-Hispanic)	0.10	(0.15)		
Married	0.18***	(0.05)	0.19***	(0.05)
Own Home	0.79***	(0.09)	0.70***	(0.10)
Minors Present	0.16*	(0.08)	0.11	(0.08)
Own Gun(s)	0.49***	(0.04)	0.47***	(0.05)
Metro/Rural	0.34***	(0.05)	0.32***	(0.06)
Religiosity	−0.09***	(0.02)	−0.10***	(0.02)
Born Again	0.04	(0.05)	0.10	(0.06)
Household Size	0.24***	(0.03)	0.23***	(0.04)
Winter Temperature (State Avg.)	0.01	(0.01)	0.01	(0.01)
Region				
South	0.38***	(0.11)	0.41***	(0.11)
Midwest	0.19*	(0.09)	0.16*	(0.08)
West	0.32**	(0.10)	0.31**	(0.10)
Racial Attitudes	—		0.03*	(0.01)
Constant	−0.76*	(0.34)	−0.44	(0.41)
Psuedo-R^2	0.09		0.08	
N	13,049		10,310	

Note: Standard errors are shown in parentheses and clustered by state. Model 2 includes white respondents only. ***$p < 0.001$; **$p < 0.01$; *$p < 0.05$

gun owners, and homeowners also have higher rates of dog ownership.

To further explore the determinants of dog ownership, we estimated a logistic regression model including a battery of political, demographic, and regional variables.[24] The results are presented in table 5. Although demographic patterns of dog ownership correspond well with political patterns that explain Mutz's results, our individual level analysis shows no significant independent effects of political predispositions. Instead, demographics dominate the model. Older, nonwhite men with lower levels of education are less likely to own dogs. Also, large families living in rural areas, homeowners, and gun owners are likely to own dogs. Most of these demographic factors coincide with those that would predict support for conservative and Republican candidates. Although significant bivariate correlations between dog ownership and partisanship and ideology exist, partisanship and ideology offer no independent influence on dog ownership when demographic fac-

tors are considered. Lastly, the model reveals strong regional effects. Unsurprisingly, Southern and Western respondents are significantly more likely than their Northeastern and Midwestern counterparts to own dogs.

The second model in table 5 includes our measure of racial attitudes for white respondents. Although the results are largely the same as the first model, the added racial attitudes measure shows a significant positive effect on the likelihood of dog ownership. Consistent with our previous analyses, respondents who rate blacks lower on positive characteristics (relative to whites) are more likely to be dog owners. Although little direct relationship between political predispositions and dog ownership is seen, many factors jointly predict both dog ownership and lower evaluations for Obama. As expected, a strong regional component to dog ownership exists, as well as significant positive correlations between dog ownership, conservative racial attitudes, and negative evaluations of Obama.

CONCLUSION

Diana Mutz's discovery of and explanation for an apparent dog gap in American politics is both fascinating and entertaining. Unfortunately, when it comes to American public opinion and voting behavior, the dog gap, while being perhaps the furriest kind of gap, is also largely a spurious gap. When measures of operational ideology and racial attitudes are left out of the analysis, dog ownership taps a good deal of the variation in these variables, thus leading to omitted variable bias. When these variables are included, the importance of dog ownership is reduced to statistical insignificance. In additional, in lieu of including measures of operational ideology and racial attitudes in the analysis, including region in the analysis partially mitigates the bias, but does not remove it.

Still, Mutz may still be on to something. After all, while the inclusion of relevant variables in her model renders dog ownership insignificant as a predictor of voting decisions, the coefficient is a significant determinant of support for Obama relative to McCain, and is negative in all of our models, if small in magnitude in some. It may not come close in importance to, for example, the God gap, but nonetheless, the dog gap may have some small impact on elections. Indeed, in researching this topic, we found that 2008 was not the first time that presidential pets were on the minds of some voters.[25] After considering all of the evidence, however, we strongly suspect that if Mutz's models are run on data from the 2012 presidential election, Obama's apparent, but spurious, dog deficit will remain, even though the First Family added a First Dog. Bringing Bo into the Obama family probably did little to alter the correlates of dog ownership that seem to be largely responsible for the dog gap, a gap that has been erroneously attributed, at least in part, to dog ownership itself.

Featuring the Baha Men[26] on campaign rally audio programs might have highlighted the fact that Bo gets to wag his tail in the White House, but it would have been unlikely to change the racial attitudes and ideological leanings of American voters. Bo is now a part of the Obama family, which is likely of great consequence for Barack Obama on a personal level. When it comes to the election of 2012, however, the presence of a pooch that was so sorely lacking in 2008 probably did not do much good for the president.[27] In the end, our analysis fits well with an already substantial body of research that shows that racial attitudes had a significant impact

on many voters' evaluations of Barack Obama, and it shows that these attitudes are responsible for much of the spurious correlation between dog ownership and negative evaluations of Barack Obama. Moreover, Obama undoubtedly continued to have trouble with conservative Southern voters; it is highly unlikely that man's best friend did much to change that.

In all likelihood, Bo did not fetch many votes for his owner in 2012. Despite that fact, we have some advice for the president: Treat Bo well, Mr. Obama. If he is dog tired on a given day, let the sleeping dog lie. Don't skimp on the chew toys or petting sessions. Keep Bo happy. Presidential pets can be wonderful companions, and in Washington, it can be hard to find dependable friends.[28]

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NOTES

1. It is of course likely that Sarah Palin, the Republican nominee for vice president, also brought the issue to the fore by characterizing herself as a pit bull with lipstick.

2. An epigraph to Mutz's article reads: "This study is in memory of Lee Sigelman, who always made me laugh." While we did not have the honor of knowing Lee Sigelman, his work has greatly influenced our own scholarly pursuits, a fact for which we are both very much grateful.

3. This lesson was learned by Gerald Ford while campaigning in 1976.

4. A good choice might be a bulldog, as Georgia was a swing state in 2008, and its residents, many of whom are college football fans, were already primed to revere bulldogs due to the Georgia Bulldogs winning the eastern division of the SEC in 2011 and getting off to a strong start in 2012.

5. As parodied in figure 2, Mitt Romney once infamously strapped his family's dog, Seamus, to the roof of his car for a 12-hour road trip, running afoul of Massachusetts' animal cruelty laws. An attempt by *The Simpsons'* Montgomery Burns to turn Seamus' story from a liability to an asset was unsuccessful (see http://www.youtube.com/watch?v=ltCIEbLMaQg).

6. Bo himself, however, may have been worried about being bitten if he had been able to read his owner's memoir, *Dreams from My Father*, which includes a description of the president eating dog meat in Indonesia as a child.

7. We wish to note that "A Dog's Tale" is a famous short story authored by Mark Twain, who, as Mutz notes, had much to say about canines. Incidentally, we assume that many readers will find our work much less clever than Mr. Twain's, and for that, we apologize.

8. While our estimated coefficients are not exactly the same as Mutz's, with few exceptions, the signs and statistical significance of the coefficients are identical, and the magnitudes of the effects are quite similar. We use this replication as the launching point for our reanalysis, which seeks to account for a number of crucial variables that are not accounted for in Mutz's model.

9. We are grateful to Annenberg for making this data publically available. In conjunction with the questions on pet ownership that the survey includes, its large sample size makes it particularly useful for our purposes.

10. All cross-regional differences except the Midwest-West difference are statistically significant.

11. The differences between each region and each other region are all significant, as well.

12. Much of the reduction in this coefficient is actually attributable to the inclusion of the improved measure of racial identification. If the regional dummies are added, but Mutz's original "nonwhite" variable is used, the coefficient on dog ownership is reduced from $-.246$ to $-.228$.

13. Free and Cantril (1968) referred to typical Americans as ideologically conservative but operationally liberal.

14. The differences in means are all statistically significant.

15. The coefficients on the South and West dummies decrease substantially and lose their statistical significance as one moves from table 2 to table 3. The

significant positive coefficient on the Midwest dummy may suggest that Midwesterners who are racially and/or operationally liberal are particularly supportive of Barack Obama.

16. Numerical results not presented here are available from the authors. Additionally, as there may be more noise in the separate models of approval for McCain and Obama due to the lack of an "anchor point" for individual respondents, we ran models where the approval ratings were normalized per respondent based on the average approval rating that each respondent gave to the four candidates for the presidency and vice presidency. The results were very similar.

17. According to the same source, McCain also owned six cats, two turtles, three birds, 14 fish, and a ferret.

18. Although we do not examine the possibility here, controlling for ideology without taking account of the fact that race can affect respondents' perceptions of candidates' ideological locations can lead to underestimates of the effects of race on voting decisions (Jacobsmeier 2009).

19. The Mock and Weisberg article also pays homage to Lee Sigelman's (1992) article "The Presidential Horoscope: Predicting Performance in the White House."

20. Another possibility is that dog ownership is partially tapping residence in rural areas. The simple dichotomous urban/rural variable in the NAES data is an imprecise measure of how rural the area that a respondent resides in is.

21. Analysis using regional interaction terms confirms that such differences are statistically significant in many cases.

22. For example, the measures of education and religiosity that we employ might provide a more accurate measure of these concepts at the individual level if region were incorporated into the measures. High school graduates in one region, for instance, might be better educated on average than high school graduates in another region.

23. There is a small psychological literature that explores correlations between (human) personality traits and affinity for pets. Gosling, Sandy, and Potter (2010) provide a review of the literature as well as the results of a large-N analysis. They find that "dog people" are more extraverted, agreeable, and conscientious than "cat people," and less neurotic and open. It is conceivable that people who display lower levels of openness are more likely to have conservative racial attitudes.

24. We also included the average winter temperature in the state that a respondent lived, as the prospect of walking the dog in cold, blustery conditions might make dog ownership a less-attractive prospect.

25. Interesting examples can be found at http://www.mwilliams.info/archive/2004/03/john-kerrys-dog.php and http://www.freerepublic.com/focus/f-news/1205554/posts

26. The Baja Men are the performers who made the song "Who Let the Dogs Out?" a hit.

27. If we turn out to be wrong, President Obama should be thankful that he will not have to run for reelection again, as his statement during his 2012 acceptance speech that his family would not be getting another dog might have come back to bite him. Moreover, on the last day of the campaign, Governor Romney planted the seeds for a new Republican push for the canine constituency, indicating that if he won, he would bring a Weimaraner to the White House (Parker and Barbaro 2012).

28. Even though things went well for President Obama in November, he may want to keep an observation made by Franklin P. Jones in mind: "Scratch a dog and you'll find a permanent job."

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