

Why Voters May Have Failed to Reward Proximate Candidates in the 2012 Top Two Primary¹

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Abstract

An experiment conducted by the authors (2014) found that the top-two primary first used in California in June 2012 failed to achieve its sponsors' goal of helping ideologically moderate candidates win. This paper explores why. A primary reason is that voters are largely ignorant about the ideological orientation of candidates, including the moderates they would choose if proximity voting prevailed. We document this in congressional races, focusing on competitive contests with viable moderate candidates. Our results have a straightforward implication: for the top-two primary to mitigate polarization, moderate congressional candidates would have to inform voters about their moderation to a far greater degree.

¹ We thank Tony Valeriano for especially helpful research assistance, as well as Luke Edwards, Aaron Kaufman, and Aidan McCarthy.

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The open primary has been touted as an antidote to political polarization. Democratic and Republican legislators and activists have been growing further and further apart, while the general public remains far more centrist in ideology and policy preferences. Open primaries, the argument goes, will: 1) Incentivize moderate candidates to enter the fray, and 2) Increase the participation of moderate voters, both partisans and independents. In this new environment, even extreme candidates may move toward the middle as in the median voter paradigm. California's top-two primary reform of 2012 takes the open primary idea to its limit. All candidates are on a single-ballot, albeit with party labels attached, and the top two vote-getters, regardless of party, face off in the general election.

In Ahler, Citrin, and Lenz (2014), we conducted an experimental test of the impact of the top-two reform on the fortunes of moderate candidates. Here we briefly summarize the largely negative conclusion of that research and turn to a systematic analysis of a major reason for this outcome. To vote for a moderate, voters must be able to identify her. Yet we find a pervasive lack of information about precisely what one must know to fulfill the intended promise of open primary reform.

Our research is based on a poll of 4,599 registered California voters recruited through Survey Sampling International (SSI) in the 10 days before the 2012 primary. Although not a probability sample, the sample represents the population on party registration, ideological self-placement, and other key demographic variables and, reassuringly, the survey's election results also closely mirror the actual election results.

In designing the experimental test, we randomly assigned these voters to one of two conditions at the beginning of the survey: the new top-two ballot (treatment) or a closed ballot (control). Participants assigned to the treatment condition could vote for any candidate running in their district, while those assigned to the control condition could only choose candidates from the

² We thank Tony Valeriano for especially helpful research assistance, as well as Luke Edwards, Aaron Kaufman, and Aidan McCarthy.

party with whom they were registered.³ Since ballot assignment was random, it is independent of potential confounding variables, and thus allows us significant leverage to determine whether the new ballot format causes citizens to make different choices than they would have under closed primary rules, and thus, whether the top-two format can affect moderate candidates' fortunes through voters' choices.

Of course, the top-two ballot can only help moderate candidates when such candidates appear on the ballot and compete against more extreme candidates. About one month before the election, we classified districts into three categories: (1) no chance the reform could help a moderate, (2) a slight chance it could help, (3) a better than slight chance it could help. We based these decisions largely on whether at least one viable moderate faced at least one (more) extreme candidate who was also viable, but we also considered the district's partisan registration and electoral history.⁴ We conducted the ballot experiment in the 34 of California's 53 congressional districts that fell into categories 2 and 3. In these districts, 238 candidates, 130 of whom we considered viable (based on the authors' pre-primary assessments of previous election results, endorsements, media coverage, and money raised). Our analysis mostly focuses on viable candidates in the 20 category 3 races, which we call "best-case districts." These contests had 110 candidates, 58 of whom we considered viable.

To measure candidate ideology—and thus moderateness—we create an index from four measures of candidate ideology. First, prior to fielding the survey, the research team visited candidates' websites, scoured media coverage of the races, and attempted to rate the candidates with a standard 7-point ideology scale. Second, we hired 204 politically knowledgeable Mechanical Turk workers to visit websites for viable candidates in the 20 category 3 districts and rate those candidates on the 7-point scale.⁵ Third, we use Campaign Finance scores (CFscores), which map candidates into an ideological space based on commonality of donors with other candidates (Bonica 2014). Fourth, we make use of Project Vote Smart's database of candidates' positions, which is based on candidate surveys and imputed positions from candidate statements, and which we transform into an ideology measure using a unidimensional item response theory (IRT) model. We standardized the means and variances of these four measures to zero and one, respectively, averaged them into a single index, and rescaled it to a 1-7 scale.⁶ Each of these measures suffers from potential drawbacks, including substantial measurement error and missing data, so we believe the index to be the most defensible approach for ideological measurement. But our findings are robust to other measurement strategies (see Ahler, Citrin, and Lenz 2014).

Does the Top-Two Favor Moderate Candidates?

As we document in Ahler, Citrin, and Lenz (2014), the experimental results are discouraging for advocates of primary reform. Moderate candidates fail to benefit, on average, from the top-two ballot. Moreover, voters assigned to the top-two ballot tend to select candidates who are

³ Independent voters could choose to vote in the Democratic primary, since the California Democratic Party's prior primary rules allowed this. (62% did so.)

⁴ We judged whether candidates were viable based on the authors' pre-primary assessments of previous election results, endorsements, media coverage, and money raised.

⁵ Cronbach's $\alpha = 0.98$ for the full set of candidates; $\alpha = 0.40$ for the Democratic subset and $\alpha = 0.50$ for the Republican subset. See SI section 4 for more detail on the ratings.

⁶ Cronbach's $\alpha = 0.98$ for the full set of candidates; $\alpha = 0.68$ within the Democratic subset of candidates and $\alpha = 0.41$ within the Republican subset.

more ideologically distant from themselves. They do so despite having the option to vote for more proximate candidates on the top-two ballot. The finding of “no effect” survives a host of robustness checks and even holds up among the most moderate and knowledgeable voters. In sum, the top-two ballot appears to have fallen short in achieving its intended effects, at least in 2012.

Table 1 presents a simple review of the experimental evidence by examining how often voters assigned to the treatment group and the control group select their districts’ most moderate candidates. If the top-two format induced voters to support moderates at higher rates, we should see such centrist candidates performing better in the treatment group than the control group. To determine the most moderate candidate in each district, we fold the four-item ideology score we described above by calculating the absolute value of the candidate from the scale’s midpoint (4 on the 1-7 scale).

Overall, we see little sign that moderate candidates fared better under the top-two ballot. The first three columns show the results for the 20 best-case districts (category 3)—districts where we judged beforehand that top-two ballot could help moderate candidates. The first column shows that 23.9% of respondents voted for the most moderate, major-party candidate on the open ballot, compared to 23% on the control ballot, a trivial difference. Since many of the candidates had no chance of winning, the next column shows the same statistics when we limit the analysis to the most moderate candidate among viable candidates. The results, however, are essentially unchanged: 40.7% versus 39.7%. Since a district’s most moderate major-party candidate is not always especially centrist, the next column presents the same statistics but limits the analysis to districts where the most moderate candidate scored between 2.5 and 5.5 on the seven-point ideology index. Among this subset, we again find no evidence that the reform helped moderate candidates: 36.4% of the treatment group in these districts chose a “true” moderate, compared to 32.7% of the control group, a difference that is not statistically significant.

These findings hold up when we expand the analysis to all 34 districts where we conducted the experiment, as shown in the next three columns. Here, we do find one statistically significant difference between the experimental groups, but it is in the wrong direction: voters assigned to the top-two ballot were not more but less likely to choose the most moderate viable candidate.

Table 1 focuses only on major-party candidates. We can expand this analysis to include no party preference candidates (NPP), and when we do so, we find that the ballot appears to have helped moderate candidates significantly. However, this finding reflects a mechanical artifact rather than a true treatment effect: NPP candidates, by definition, could not be included on the partisan control ballots. Thus, their fortunes can only improve under the treatment (top-two) ballot. In all likelihood, many of these candidates would have run as Democrats or Republicans had the top-two reform not passed—indeed, one such candidate, Anthony Adams of the 8th District, was a former Republican assemblyman—so 0% on the control ballot is probably a gross underestimate. As such, including these candidates in the analysis assumes an unrealistic counterfactual, and one that introduces bias.⁷

In sum, we find little sign that the ballot helped moderate candidates. In Ahler, Citrin, and Lenz (2014), we show that this pattern holds up across each of the four ideological measures used in the average.

⁷ We address this problem in more detail in Ahler, Citrin, and Lenz (2014) and fail to find evidence that that voters systematically chose ideologically congruent NPP candidates.

Table 1: Average Vote Share for the Most Moderate Major-Party Candidate, by Condition

	(1) 20 best-case districts (category 3)	(2)	(3)	(4) All 34 districts (category 2 & 3)	(5)	(6)
	Most moderate candidate from among			Most moderate candidate from among		
	All candidates	Viable candidates	Viable candidates btw. 2.5-5.5	All candidates	Viable candidates	Viable candidates btw. 2.5-5.5
	Average vote share for most moderate major-party candidate					
Top-two ballot (treatment)	23.9%	40.7%	36.4%	31.1%	43.5%	44.2 %
Control ballot	23.0%	39.7%	32.7%	30.2%	48.2%	44.9%
Difference	0.9% (2.6%)	1.0% (3.0%)	3.7% (2.0%)	0.9% (2.3%)	-4.7%* (2.4%)	-0.7 % (3.3%)
Observations	1,043	1,043	557	1,683	1,683	944

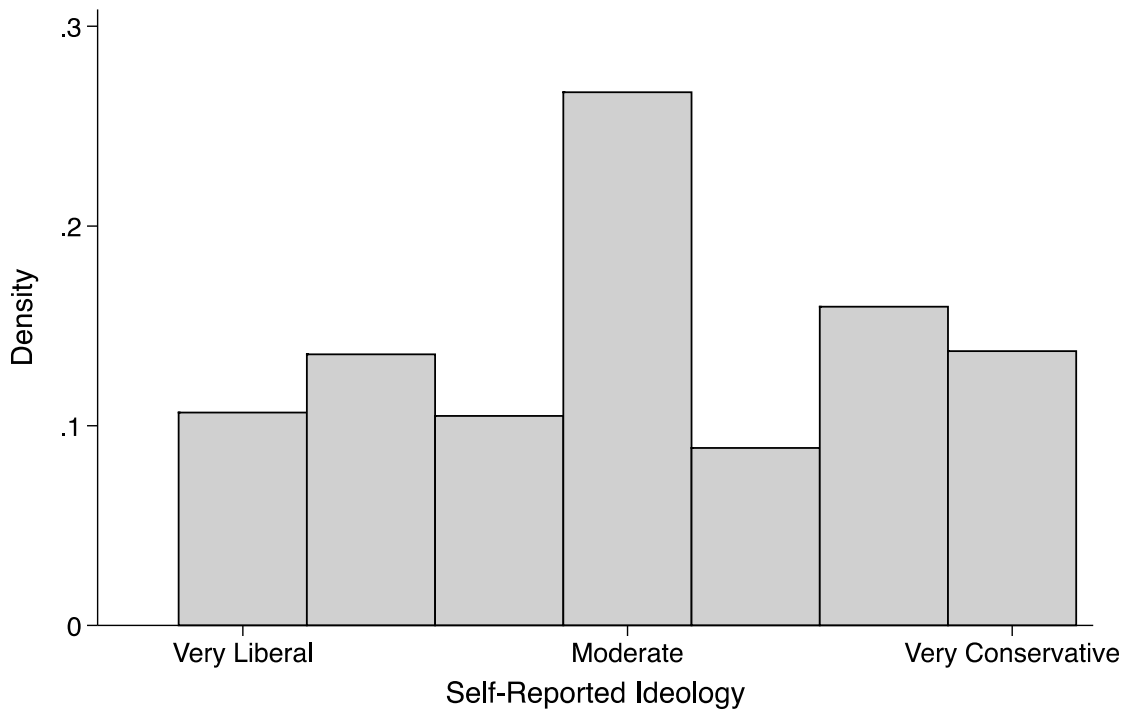
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Why didn't the Moderate Dog Bark? The Problem of Knowledge

The expectation that more open primary formats like the top-two will help centrist candidates assumes, first of all, that voters themselves tend to be moderate. If this is true, then the expanded choice set engendered by the open primary allows them to select candidates closer to their (on-average) moderate ideological predispositions. Consistent with reformers' expectations and prior analyses, we find support for the validity of these assumptions. As Figure 1 shows, respondents tended to identify as moderates: more voters chose "moderate" (4) than any other ideological category on our 7-point self-placement question, and nearly 50% identify as moderates when we include those who lean to the left or right. This comports with scaled measures of California voter ideology from 2012 (Kousser, Phillips, and Shor 2013) as well as past nationwide analyses of voter ideology, based on self-reported measures (e.g., Fiorina and Abrams 2009) and latent measures (e.g., Bafumi and Herron 2010). Importantly, this tendency holds within districts. Figure 2 plots the ideological self-placement of the median voter in each of the 20 best-case districts and demonstrates that districts hew to the ideological center.

Just as significantly, the reform indeed held promise for moderates' electoral fortunes. Figure 2 compares district median voters to district partisan medians—the median voters under the closed primary rules—and demonstrates that district medians tend to identify as more moderate, especially compared to Republican medians. This implies that truly moderate candidates should perform better under the new rules if voters consider ideological congruence in their decisions. We find further support for this at the individual level: As we report in Ahler, Citrin, and Lenz

Figure 1: The modal voter claims to be ideologically moderate



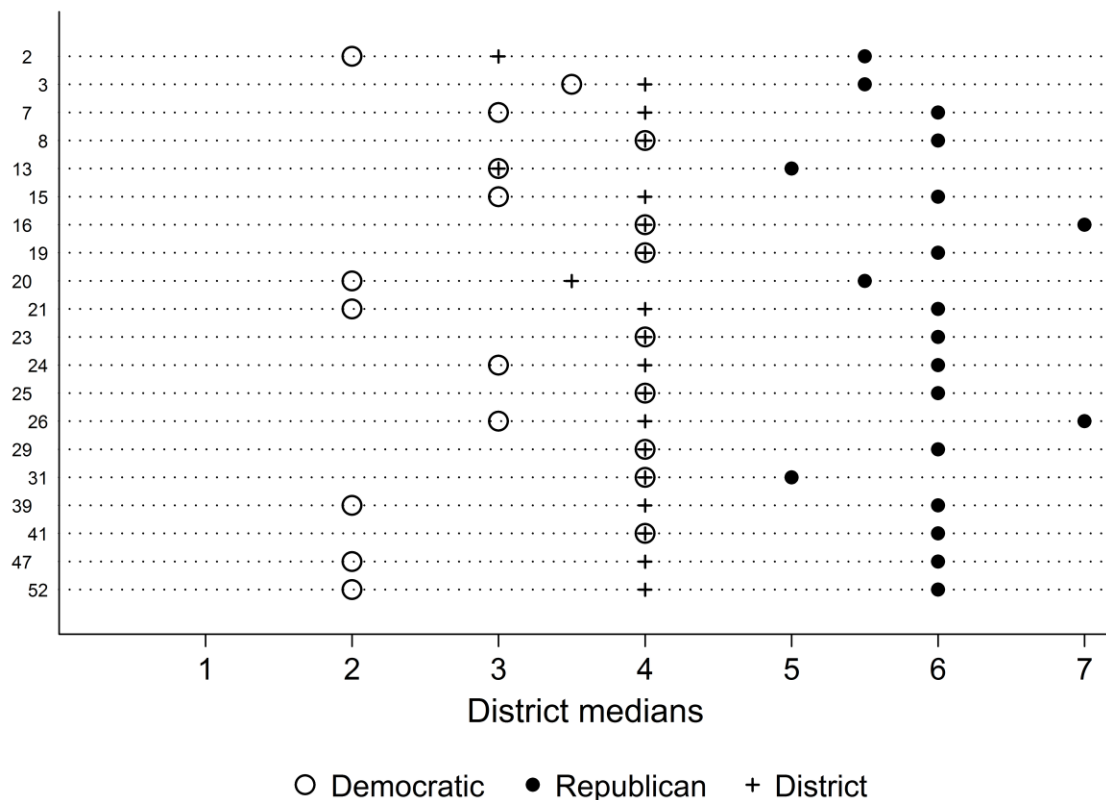
(2014), when comparing voters' self-reported ideology to the 4-item ideological scores for the candidates in their district, we find that voters assigned to the top-two condition had the potential to choose candidates significantly closer to their own ideological predispositions than voters in the control group.

Thus, the most basic assumptions on which primary reform rests appear to hold. Voters are moderate according to multiple measures and the reform appears to allow voters to elect candidates closer to those moderate predispositions. So why did the reform seem to fail? In Ahler, Citrin, and Lenz (2014) we explore many possibilities: external validity concerns pertaining to the experiment, strategic hedging by voters, insincere voting in the form of “raiding” the out-party, a dearth of truly moderate candidates, and the splitting of votes by multiple moderate candidates within districts, any of which could potentially lead to the apparent failure. However, here we point out why these explanations miss the mark or, at the very least, do not sufficiently account for the apparent lack of the intended effect of the top-two ballot.

Our critical finding is that voters lacked knowledge about the candidates, surely a necessary condition for proximity voting of any kind. Specifically, voters held fuzzy beliefs about candidate ideology that came nowhere close to the knowledge necessary for identifying the moderate candidates reformers presumed would be favored. In Ahler, Citrin, and Lenz (2014) we present a series of analyses showing that *voters' perceptions* of candidate ideology correlate only weakly, at best, with our 4-item measure of candidates' ideological positions, and conclude that this inaccuracy is an important source of the reform's failure.

Here, we extend the analysis of the shortcomings of voters' knowledge by identifying two key impediments to proximity voting in the 2012 top-two primary: 1) The failure of partisanship as an ideological heuristic in primary elections, and 2) The projection of individually-held posi-

Figure 2: Districts tend to be moderate and district medians tend to be more moderate than district partisan medians



Note: These plots show the 20 best-case congressional districts (Category 3) where the top-two primary seemed likely to benefit moderate candidates, as coded by the authors before Election Day. The results are similar for other California districts.

tions onto candidates. These tendencies reinforce the conclusion that the top-two reform, absent significant improvement to voter information, is unlikely to change the pattern of electoral outcomes.

The Failure of Partisanship as a Cue

Party labels function as an information shortcut, or heuristic, in the evaluation of candidates' political positions (Downs 1957; Rahn 1993). Especially in the era of highly-sorted parties, voters who know the parties' positions on the issues of the day can predict partisan candidates' positions with relative accuracy (Koch 2001). Using party as a heuristic allows voters to approximate more cognitively demanding versions of issue voting or ideological proximity voting in general election contests between candidates of two different parties (Coan 2008; Huckfeldt et al. 1999; Lau & Redlawsk 2001; Rahn 1993).

However, just as in a traditional partisan primary, partisanship likely fails as a heuristic for proximity voting in open primaries like the top-two. First, these primaries tend to feature

multiple candidates from the same party vying to represent the party in the general election and may even attract new contenders who see a chance to oust their more extreme co-partisan incumbent. When two or more candidates share a partisan label, voters relying only a simple partisan heuristic will fail to distinguish ideological differences between them. Second, and potentially more disheartening for the prospects for reform, voters may miss strategic moderation on the part of candidates. Partisan candidates may moderate under the top-two rules to try to capture the more centrist district-wide median voter, but if voters' knowledge of candidate ideology is limited to what they glean from party labels, such moderation will go unrewarded.

For example, consider a moderate Democratic voter who places himself at 3 on the 7-point scale and faces a choice between a very liberal (1) Democrat, a moderate Republican (4), and a Tea Party Republican (7) in a hypothetical top-two primary. Under an ideological proximity voting rule, the voter's best option is the moderate Republican. But if the voter simply assesses candidate ideology according to partisanship, he will judge the Democrat as roughly a 2.5 and both Republicans as roughly 5.5 on the 7-point scale. Under such judgment, the voter will select the liberal Democrat if he attempts to use a proximity rule, thus failing to reward the moderate Republican for her centrism.

To what degree is the continued reliance on party as a cue a threat to reformers' hopes? That is, how much do voters use party labels (over more differentiating information) to evaluate primary candidate ideology? To answer this, we use our 4-item measure of candidate ideology and a simple party indicator variable to predict voters' perceptions of candidate ideology.⁸ We then examine goodness-of-fit measures to determine whether ideological scores or candidate partisanship better predicts voters' beliefs about the candidates.⁹ If the 4-item measure is a better predictor, then voters appear to possess information about the candidates beyond partisanship that can aid in within-party proximity voting. However, if the party indicator is a better predictor, then voters are unlikely to select candidates as reformers envisioned.

To gauge voters' perceptions of the candidates, we asked them to rate the ideology of their districts' candidates using a standard 7-point ideological scale. We did this after inquiring about their vote choices, so these perceptions are assessed post-treatment. Reassuringly, however, we fail to find substantive or significant differences in these perceptions across experimental conditions. We rescale these perceptions 0-1 and regress them (via OLS) first on our 4-item measure of candidate ideology (again, the index constructed from research team ratings, MTurk ratings, CF Scores, and IRT-scaled Project VoteSmart positions rescaled to 0-1) and then on a party indicator variable (scored 0 for Democratic candidates and 1 for Republican candidates).

To compare the models' goodness-of-fit, we examine their R^2 , which describes the amount of variance in voters' perceptions that the model explains. R^2 would be equal to 1 under perfect fit and 0 if the model had no predictive power whatsoever. We also compare the models' standard error of the regression (SER), which gives the average difference between actual values and predicted values, with a lower SER indicating better accuracy.

We present the results in Table 2. Since we focus on the explanatory power of partisanship, we limit the analysis to the 213 (of 238) major party candidates in all districts in which we con-

⁸ We reach similar conclusions when we measure candidate ideology with each of the component items of the 4-item score individually, implying that no one component drives the results here.

⁹ See Franklin (1991), Snyder and Ting (2002), and Tausanovitch and Warshaw (2013) for similar analyses on general elections. We extend this logic here to investigate whether citizens learn the ideological information necessary to engage in proximity voting in House primaries, as Hirano et al. (2014) suggest they do in higher-salience primary elections (e.g., senatorial and gubernatorial contests).

Table 2: Candidate party predicts voters' perceptions of candidate ideology as well as finer-grained ideological scores

	(1)	(2)	(3)	(4)	(5)	(6)
	DV: Average respondent placement of candidate ideology					
	All candidates	All candidates	Viable candidates	Viable candidates	Viable candidates, cat. 3 dists.	Viable candidates, cat. 3 dists.
4-item average scores	0.396*** (0.0191)		0.471*** (0.0237)		0.445*** (0.0251)	
Party dummy		0.268*** (0.0108)		0.306*** (0.0128)		0.282*** (0.0141)
Constant	0.313*** (0.0115)	0.382*** (0.00761)	0.272*** (0.0139)	0.362*** (0.00878)	0.290*** (0.0149)	0.374*** (0.00996)
Observations	213	213	143	143	96	96
R-squared	0.671	0.743	0.737	0.802	0.769	0.810
SER	0.090	0.079	0.088	0.077	0.076	0.069

Standard errors in parentheses. The 4-item average score is an average of these ideological measures for each candidate: CF Scores, author ratings, MTurk ratings, and IRT-scaled Project Vote Smart responses.

*** p<0.01, ** p<0.05, * p<0.1

Table continued

	(7)	(8)	(9)	(10)
	DV: Average respondent placement of candidate ideology			
	Viable non-incumbents	Viable non-incumbents	Incumbents	Incumbents
4-item average scores	0.348*** (0.0239)		0.701*** (0.0317)	
Party dummy		0.237*** (0.0115)		0.431*** (0.0199)
Constant	0.338*** (0.0141)	0.394*** (0.00808)	0.151*** (0.0183)	0.313*** (0.0130)
Observations	91	91	52	52
R-squared	0.704	0.827	0.907	0.904
SER	0.072	0.055	0.070	0.071

Standard errors in parentheses. The 4-item average score is an average of these ideological measures for each candidate: CF Scores, author ratings, MTurk ratings, and IRT-scaled Project Vote Smart responses.

*** p<0.01, ** p<0.05, * p<0.1

ducted the experiment and exclude NPP and other party candidates. Column 1 presents the bivariate regression of voter perceptions on the 4-item ideological scores, while Column 2 presents the bivariate regression of voter perceptions on the party indicator. While both independent variables significantly predict voters' perceptions of the candidates' ideological positions, the model relying on the simple party indicator appears to have slightly more predictive power ($R^2 = 0.74$ compared to $R^2 = 0.67$ in Model 1). The models' SER values indicate that the party indicator predicts respondents' placements with slightly more accuracy than the finer-grained 4-item score. On average, predictions from the ideology score miss the mark by 0.09 on the 0-1 scale, while predictions from the party dummy are off by 0.079. We would not observe this pattern of results if voters had a sense for variation in candidate ideology within party. Instead, the pattern we observe is consistent with voters' knowledge of the candidates' positions being limited to what they can glean from party labels.

To show that these results hold across a variety of candidate and race types, we subset the data for viable candidates, viable candidates in best-case districts, viable non-incumbents, and incumbents. We again compare the goodness-of-fit of predictive models of average voter perceptions based on our 4-item ideological scores and the party indicator. As Columns 3-10 show, our statistics of interest only favor the 4-item measure in one of these subsets—incumbents—and even then, the differences are trivial, observable only in the third decimal place. Overall, we fail to gain any additional power to predict voters' beliefs about candidate ideology when moving from a coarse party dummy to a finer ideological measure, implying that voters tended not to distinguish between candidates of the same party or conceive of the candidates' positions in an ideologically meaningful way. This finding is also robust to the measurement of candidate ideology—it holds up with each of the four measures that make up the 4-item average (results available from the authors).

One possibility is that voters accurately perceive politicians' ideologies but use the ideology scale inconsistently (across individuals or districts) and thus appear ignorant even though they are not. Evidence presented by Tausanovitch and Warshaw (2013) appears to rule out this possibility by analyzing respondents' perceptions, not of representatives' ideology, but of their roll call votes. They nevertheless reach similar conclusions. To further rule out this possibility, we repeated the analysis discussed above, but at the individual level and with district and voter fixed effects. The unit of analysis in this case is the respondent-candidate pair, since respondents were asked about multiple candidates within their districts. As the regression analyses in Table 3 show, the R-squared and SER remain nearly identical, indicating relatively comparable fit. Thus, inconsistent interpretation of the ideological scale fails to explain the pattern we observe.

The open-seat election in the 21st District provides an example of this lack of fine-grained ideological knowledge. During the campaign, Republican Assembly member David Valadao professed his belief in a government “as limited as possible,” Fresno city Councilman Blong Xiong attempted to portray himself as a pragmatist with a deep connection to the constituency, and Central California Hispanic Chamber of Commerce President John Hernandez's remarks adopted the language of the Occupy movement (*Hanford Sentinel* 2012). Participants in our study, however, mistakenly saw all three as relative centrists and, consistent with the trend discussed above, placed the two Democrats as ideologically identical, on average (Valadao 4.7, Hernandez 3.6, and Xiong 3.5). It is thus unsurprising that Xiong was the candidate who failed to advance to the general election, despite being the most congruent with the district's moderate median voter.

Table 3: Individual-level analysis of voters' perceptions of candidate ideology

	(1)	(2)	(3)	(4)	(5)	(6)
	DV: Respondent placement of candidate ideology					
4-Item score	0.453*** (0.0169)		0.422*** (0.0166)		0.383*** (0.0240)	
Party Dummy (Dem. = 0, Rep. = 1)		0.294*** (0.0103)		0.272*** (0.0105)		0.253*** (0.0152)
Constant	0.281*** (0.0101)	0.374*** (0.00700)	0.297*** (0.00986)	0.385*** (0.00713)	0.318*** (0.0126)	0.394*** (0.00740)
Observations	4,347	4,426	4,347	4,426	4,347	4,426
R-squared	0.211	0.227	0.247	0.247	0.621	0.626
SER	0.274	0.271	0.269	0.268	0.250	0.247
District FE			X	X		
Respondent FE					X	X

Standard errors clustered at the respondent level in parentheses. The 4-item average score is an average of these ideological measures for each candidate: CF Scores, author ratings, MTurk ratings, and IRT-scaled Project Vote Smart responses. Since respondents only rate candidates from their district, we cannot include both district and respondent fixed effects.

*** p<0.01, ** p<0.05, * p<0.1

Projection

The analyses above demonstrate that voters in 2012 saw all Democratic candidates as roughly equally liberal and all Republican candidates as roughly equally conservative, on average. At the individual-level, however, we observe variation within voters' placements of Democratic and Republican candidates: individual voters do not place every Democrat at 3 and every Republican at 5 on the ideological scale. Does such variation reflect simple noise or something more systematic? In this section, we explore one possibility for systematic error: voters not only lack knowledge of candidate ideology beyond what they can infer from partisanship, but also project their own (generally moderate) views onto the politicians they favor.¹⁰ Such error-laded projection would potentially present greater difficulty for the reform's future success than a lack of information alone.

Testing for projection is difficult because of reverse causation. Congruence between voters' professed ideological positions and beliefs about their preferred candidates' ideological views may reflect projection, but they may also reflect voters' selection of ideologically similar

¹⁰ See Markus and Converse (1979), Granberg and Brent (1980), Dalager (1996), Merrill, Grofman, and Adams (2001), and Krosnick (1990) for more detailed discussions of the psychological phenomenon of projection.

candidates. To circumvent this inferential problem, we examine the variation of voters' beliefs about the ideology of *individual* candidates rather than looking at their evaluations across candidates.

To illuminate our strategy, consider the case of Abel Maldonado, the author of the Top-Two Primaries Act and a congressional candidate in District 23. To determine whether Maldonado's supporters—those who indicated they would vote for him on our survey—project their own ideological identities onto him, we investigate whether their beliefs about his ideology become more conservative with their own self-reported ideology. Thus, we only compare Maldonado supporters to other Maldonado supporters.

We test for this association by regressing (via OLS) supporters' beliefs about the candidate, measured with the 7-point ideological scale, on supporters' own 7-point ideological self-placements. We perform this analysis for each of the 56 candidates who received ideological ratings from multiple supporters in the 20 best-case districts.¹¹ We record a slope (regression coefficient) for the relationship between beliefs about the candidate and supporters' own ideological identities, as well as a standard error associated with each of these slopes. We then calculate a precision-weighted average of these slopes to estimate the overall degree of projection, with the inverse of the standard errors serving as the precision-based weights.

The analysis implies that significant projection may have occurred in the 2012 primary. Consistent with the notion that voters project their own preferences onto the candidates they support, the precision-weighted average of the slopes from the within-candidate analyses was 0.36 (95% confidence interval: [0.10, 0.64]). Since respondents reported both beliefs about candidate ideology and personal ideological identification with 7-point scales, this statistic implies that we should expect two supporters of a candidate who differ by a point on the 7-point ideological scale to perceive the candidate as just over a third of a scale point differently, with the more conservative voter rating the candidate as 0.36 points more conservative on the 7-point scale.

Thus, not only did voters appear to lack objective knowledge of the candidates' ideological positions in 2012, but they also may have substituted their own ideological identifications for their preferred candidates'. Since voters tend to identify as moderate (see Figure 1), this projection is especially troubling for the prospects of the top-two reform to help truly moderate candidates: information about moderate candidates may not be enough to sway moderate voters. Instead, moderate candidates may also have to dispel moderate voters' notions that popular and immoderate candidates are centrist.

Conclusion

This paper searched for an explanation for the seeming failure of the top-two primary to help moderate candidates in the 2012 California primary (Ahler, Citrin, and Lenz 2014). Since proximity voting is the premise on which the hopes of reformers rest, we focused on a central requirement of this type of behavior, namely the capacity of voters to correctly identify the moderate candidates and then vote for them. What we found were multiple reasons that proximity voting was undermined. Sheer ignorance is one, the continued use of the party

¹¹ As we document in Ahler, Citrin, and Lenz (2014), 30% of ratings of incumbents and 54% of ratings of non-incumbents were blank or "don't know" responses, indicating substantial missing data. As such, the analyses in this paper are necessarily limited to the more knowledgeable voters, which biases results against the findings we present.

heuristic in an inappropriate context is another, and the erroneous projection of one's own views onto candidates is a third. Add to these another factor not studied here—the reluctance of many partisans to cross over and vote for someone with an opposing party label—and the obstacles to proximity voting become even more formidable.

Of course, the reform may change many other aspects of congressional elections, such as candidate entry, candidate strategy, and of course the general election races. Voting behavior in the primaries, however, is critical to the incentives candidates face. If voters fail to prefer moderate (or proximate) candidates, then moderate candidates may lack an incentive to enter and extreme candidates may lack an incentive to moderate.

What, then, might change the prospects for moderates in the more advantageous institutional context of the top-two primary? The obvious implication of our research is that more information about the candidates' ideology is crucial. Where is this likely to come from? The candidates themselves and their supporters. Making ideology a salient factor in the campaign and communicating the policy differences among the candidates effectively are potential pillars for success of the top-two primary. For this to happen, of course, candidates must believe it would work.

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