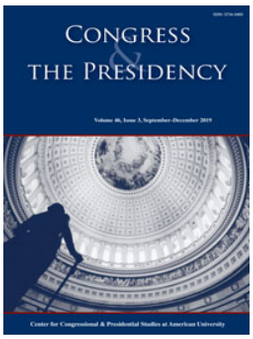

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Ideological Primary Competition and Congressional Behavior

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ABSTRACT

Primary challenges on an incumbent's more extreme flank have become increasingly common in congressional elections. We explore the consequences on the legislative behavior of successful incumbents following these types of challenges. We propose that the effect of extreme ideological primary challenges is conditioned on whether the member belongs to the majority or the minority party. We test our expectations on primary elections from 2000 to 2012 and corresponding changes in voting behavior in the next Congress. We find that incumbents in the majority party who have defeated an extreme ideological primary challenge are less likely to support their party, especially on key votes. We expect this reaction is because they fear appearing too moderate and thereby encouraging another extreme ideological primary challenge. We find that incumbents in the minority party who face an extreme ideological challenge do not change their general voting behavior, but are more likely to vote with their party on key votes.

Primary competition is not new to congressional elections. Yet primary elections in the past decade increasingly pit extreme ideological challengers against incumbents.[1] Thanks in part to the rise of outside money and self-financing, these extreme challengers are less dependent upon the party, are often well funded, and are increasingly willing to challenge established incumbents—even those previously thought to be invulnerable. One need look no further than the 2014 primary defeat of House Majority Leader Eric Cantor (R-VA) to be reminded that primary electorates are willing to vote for candidates challenging incumbents, the party, the party's positions, and the party's leaders.

Not only are primary challengers today different from primary challengers of the past, but the primaries themselves have also changed. Due to an increase in partisan redistricting, the likelihood of an incumbent losing has, for many members, shifted away from the general election to the primary election (see Carson et al. 2012, 2011). As electoral competition has

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shifted, we have seen a corresponding increase in the influence of more extreme voters on the electoral fortunes of incumbents. After all, primary voters often exhibit a strong preference for more ideologically extreme candidates (e.g., Brady, Han, and Pope 2007).

Recognizing this, we ask whether these new types of primary challengers are having an effect on incumbents' behavior in Congress. In other words, once reelected, are incumbents, fearing the primary electorate and another primary challenge (maybe even from the same person), responding to these challenges by changing their legislative behavior in Congress? We expect that a district's propensity to distribute votes to an ideologically extreme primary candidate will affect a successful incumbent's legislative behavior in the next Congress.

We propose that the effect of primary challenges on legislative voting behavior is conditioned on whether the member belongs to the majority or the minority party. That is, casting a vote with the other party means something fundamentally different depending on whether you are in the majority or in the minority. When a minority party member votes with the majority, the vote is viewed as an act of ideological moderation—this is a person willing to reach across the aisle and show bipartisanship. Spatially, the move can be interpreted as the minority member voting for a bill that moves a status quo in the direction of the majority party's preferences. This type of moderation and act of bipartisanship does nothing to discourage a future, extreme ideological challenge. Therefore, this is not a reaction we expect from a minority party member who recently faced such a primary challenge.

In contrast, when a majority party member votes against the party, we argue this should be interpreted as an act of extremism. The most commonplace demonstration of this would be when an ideologically extreme member votes against a bill (his or her majority party's bill) in protest because the bill does not move the status quo far enough in the direction of the majority party's preferences for the member's tastes. However, we also theorize that other members of the majority—even those not thought of as ideologically extreme—may also vote against their own party more frequently if they have faced a primary challenge from the party's extreme flank. From a formal modeling perspective, this act is not strictly rational because the member is voting against a bill which, strictly speaking, moves a policy closer to his or her ideal point. However, we argue that the signal sent by casting such a vote garners a member electoral benefits that outweigh the benefits the bill would bring. Although many voters may not recognize this type of signal, future challengers are likely to analyze an incumbent's voting record carefully. Thus, one such electoral benefit is the

deterrence of a future, ideologically extreme challenger in a primary election.

We develop and test our theory by analyzing primary challenges in the U.S. House of Representatives from 2000 to 2012 and corresponding changes in voting behavior in the following Congress. Although there are many ways to examine changes in legislative behavior, in this article we focus on the conditional effects of party membership on changes in the propensity to vote with one's party from the Congress preceding the primary challenge to the one following it. As we expect, we find that those incumbents of the minority party who face an extreme ideological primary challenge demonstrate no change in voting with the other party in the following Congress on roll calls.[2] However, we find that incumbents in the majority party are *less* likely to support their party on votes after an extreme ideological primary challenge.

In the following section, we discuss the changing nature of primary elections in recent years. We then review the literature on the consequences of primary competition, including those studies that have looked at the effects of primary challenges on voting behavior in Congress. After that, we further develop our theoretical framework explaining why minority and majority party members should act differently in response to ideological primary challenges and put forth our hypotheses. Before presenting the results of our analysis, we discuss our data, methods, and variables. We conclude with a discussion of the implications of our findings.

Parties and primary challenges

The belief that congressional primary electorates are ideologically extreme when compared to their general election counterparts, and thus will prefer a more extreme candidate, is fairly widespread in the literature. Brady, Han, and Pope (2007) find that primary voters systematically prefer extreme candidates. Other literature demonstrates that extreme candidates do better in primaries, but do not do as well in the general election (Hall 2015; Hall and Snyder 2015). Jacobson (2012) utilizes CCES responses and finds that primary voters—particularly Republicans—are systematically more extreme. On the other hand, some research on primaries suggests that primary voters may be more interested in politics, but they are not more partisan or ideologically extreme than general election voters (e.g., Sides et al. 2018).[3] For our purposes here, it does not so much matter whether the primary electorate itself is more or less extreme than the general electorate, but rather that the primary electorate is at least willing to distribute a decent percentage of its vote to an ideological challenger. We

posit that this ideological competition in primary elections—even when the incumbent wins—has important consequences for congressional behavior.

It is relatively easy for an extreme candidate to challenge an incumbent, as today's parties are less successful at discouraging electoral competition than in the past (but see Hassell 2016). Having little control over the recruitment of candidates, parties today are increasingly likely to let candidates self-nominate to run in open seats or against incumbents of the opposite party. Then, only after the candidate proves an ability to attract attention, usually through strong fundraising numbers, does the party decide to back the candidate. Although this system can save parties' resources up front, it also means parties have less say in who runs for Congress.

This method of candidate selection can become problematic for the party when a challenger chooses to run against a fellow party member in the primary. Thus, as a result of candidate-centered primaries and a lack of party control in elections, incumbents remain vulnerable to ideologically extreme challenges. This appears to be especially true for the Republican Party, for which Boatright (2014) notes that "[the party] establishment has become less able to protect its members from its conservative flank and that so-called cross-pressured legislators must increasingly worry about protecting both their right and left flanks" (p. 101). More recent primaries, such as Alexandria Ocasio-Cortez's primary victory over Democratic Caucus Chair Joe Crowley, show that today's Democratic Party is equally unable to protect its members from its more liberal flank.

These primaries, where incumbents are challenged from the ideological wing of their party, are drawing increased attention from the media, pundits, and donors, and can have significant consequences on candidate positioning. Burden (2004) finds that candidates facing competitive primaries locate themselves at a more extreme position on the ideological spectrum during the primary; these incumbents then have trouble moderating their positions before the general election.[4] In other words, competitive primary elections produce more extreme ideological positions in the general election.

Furthermore, these ideological challenges appear more often "when there is more general upheaval in congressional elections" (Boatright 2014, 40). With each party able to see a realistic path to gaining or losing majority status since 1994 (Roberts, Smith, and Treul 2016), this heightened level of "upheaval in congressional elections" corresponds with the increasing attention paid to and number of ideological challenges.[5] With ideological primary challenges garnering increased attention, the parties having limited abilities to suppress these challenges and protect their incumbents, and the challenges leading to more extreme candidate positions in the general election, studying their consequences on the legislative behavior of members of Congress becomes essential.

Consequences of primaries

Some literature on the consequences of primary competition focuses on the effect of primary challenges on general election success, rather than on behavior in Congress. Much previous literature suggests that competitive primaries tend to hurt the eventual nominee in the general election (e.g., Bernstein 1977; Kenney and Rice 1984). Following a competitive or divisive primary, the eventual nominee may be wounded in the general election because voters are unwilling to shift their support from their preferred candidate to the eventual nominee. Theoretical explanations as to why voters may be hesitant to support the party nominee include that voters may be turned off by the intra-party conflict, may experience a "sore loser" type of effect, may possess feelings of disgruntlement, indifference, or alienation toward the nominee, or they may have ideological concerns about how closely their personal views align with the ideological positions of the nominee (Blake and Mouton 1961; Kenney and Rice 1987; Southwell 1986; Sullivan 1977; Stone 1986; Zipp 1985).

Another vein of inquiry examines the effects of various types of primaries, mostly concentrating on the openness of primaries, on the characteristics of the electorate or the types of candidates that emerge. It is theoretically plausible that in closed primary states, where only registered voters are allowed to participate, the electorate will consist of committed partisans and thus be more ideologically extreme and nominate candidates from the far left or far right; the evidence in support of this possibility is less than convincing, however. In their investigation, Norrander and Wendland (2016) find that voters respond to the electoral rules in place, and therefore voters in closed primary states are ideologically similar to those in open primary states. Looking at the effect of openness on the ideological position of candidates produces more mixed findings, with Gerber and Morton (1998) finding that open primaries result in more moderate positions, King (1998) and Kanthak and Morton (2001) concluding that open primaries result in more extreme positions, and McGhee et al. (2014) determining the openness of the contest has little to no effect.[6]

In sum, much of the scholarship examining the consequences of primaries focuses either on the effects of competitive primaries on the general election or the impact of the openness of the primary on the ideological extremity of the electorate and the candidates. However, some work examines the consequences of competitive primaries on congressional behavior, which speaks more to the focus of our inquiry. In an investigation of the causes and consequences of polarization, Barber and McCarty (2013) find that partisan primaries are unlikely to be a significant cause of polarization and if anything have a "modest" impact. Despite primaries not being a cause, evidence suggests that polarization has contributed to lower levels of

congressional productivity and has implications for policy outcomes, particularly the extent to which social policy is adjusted (Barber and McCarty 2013).

Focusing on voting behavior of individual members, Lawless and Pearson (2008) find little evidence that primary election outcomes contribute to extreme roll call voting records. The authors suggest their findings indicate that the increase in extreme ideological primary challenges is not driving polarization in Congress. In his comprehensive work on congressional primaries, Boatright (2014) also examines whether primary challenges affect the congressional behavior of winning incumbents in the next Congress. He examines the consequences of several types of primary challenges on congressional behavior using changes in NOMINATE. Regardless of the type of primary challenge, even for extreme ideological challenges, he finds little meaningful change in a member's NOMINATE score (Boatright 2014). The aforementioned authors expect primary challenges to pull members of Congress away from the political center, but their empirical investigations all fail to find this effect on congressional behavior.

The lack of findings might be attributed in part to our inability to measure ideological primaries accurately.[7] We define an ideological primary as one where the incumbent is challenged from the ideological extreme flank of the party and where ideological positioning of the candidates is an important (often primary) component of the campaign. For instance, a GOP incumbent is challenged by a more conservative candidate or an incumbent Democrat is challenged from someone positioned closer to the left.

With ideological primaries coded, we are also able to focus on these types of primaries independent of competitive primaries. We think this is important given research that shows a distinction between a competitive primary and a divisive primary (e.g., Jewitt and Treul 2014; Ware 1979; Wichowsky and Niebler 2010). A divisive primary, much like an ideological primary, implies a division or a fissure within the party. We contend that an ideological primary challenge against an incumbent member of the House represents a fissure within the party because it signifies that at least one challenger, and likely many constituents, believe that the incumbent is not ideologically extreme enough. Thus, by looking only at incumbents who faced a primary challenge between 2000 and 2012, we can examine both those incumbents who faced a competitive primary and those incumbents who faced an ideological primary challenge.

In addition to our ability to better measure the reason for the primary, our analysis also differs from existing studies on the legislative consequences of primary challenges by suggesting that whether the member changes his or her legislative behavior is conditioned on whether he or she is a member of the majority party. Stemming from this, and unlike the scholars

mentioned previously, we do not necessarily expect all members challenged by ideological extremists in the primary to vote in a more extreme (i.e., more partisan) manner. In fact, our expectation for members of the majority party who face extreme ideological challenges in the primary is that they will vote *against* their own party more often following the primary challenge than they did before the ideological challenge. For members of the minority party, we expect to see no differences in voting behavior following an ideological primary challenge. These hypotheses and the underlying theory are discussed in greater detail later.

Theory and hypotheses

Ideological primary challenges alone are not enough to incentivize members to change their legislative behavior. To make behavioral adjustments, members must know that their changes in voting behavior can be observed by constituents, potential challengers, and the party (Canes-Wrone and de Marchi 2002). We suggest the ability to adjust their behavior in an observable way is also conditional on the status of their party in the chamber.

In the face of an ideological primary challenge, minority party members should not shift their voting behavior, as even more extreme behavior is still observable in the same way—voting against the majority party. For a minority member of Congress, a vote against his or her own party and with the majority would be deemed an act of ideological moderation—not extremism. Thus, on the heels of an extreme ideological primary challenge, the minority party member will continue to vote against the majority party and with the minority party.

On the other hand, members of the majority who faced an extreme, ideological challenge have the option of voting against their party *more* frequently, indicating that they are not merely pawns of the party leadership, but independent members, voting the way their constituency, or at least their primary constituency (Fenno 1978), wants them to vote. It should be noted that by "independent" we do not mean moderate. We certainly are not implying that the member is voting against the majority party to signal agreement with the minority party, but rather that the member would prefer to be seen as willing to buck his or her party's positions and vary voting behavior when required. Unlike a member of the minority, as an indication that the party is not extreme enough, a majority party member has the option of disobeying the party leadership and choosing not to vote with the party. This allows that majority party member to show constituents and potential ideological challengers that he or she is not simply a pawn of the party leadership. It is important to note that voting against the party on more votes in the Congress following the ideological challenge does not

necessarily imply anything about the member's ideology. In fact, a fairly moderate member of the majority party might be a prime target for an ideological primary challenge. For this member, casting even a few votes against the majority party in the post-challenge Congress may be enough to signal ideological independence and extremity (as well as responsiveness to the primary challenge and constituency (Sulkin 2005)). In other words, for majority party members who have faced an ideological challenge, voting against their own party more often than before signals ideological independence, which should be rewarded in the next primary election by keeping future ideological challengers at bay.[8]

Consequently, we expect that ideological primary challenges affect legislative behavior in the next Congress differently for minority and majority party members. This leads us to generate two hypotheses:

H1: We hypothesize that among minority party members, we will not observe a difference in their propensity to vote with their own party when comparing incumbents who face an ideological primary challenge with those who face a non-ideological primary challenge.

H2: We expect that among majority own party members, incumbents who face an ideological primary challenge will vote against their party more often than they did before the primary challenge when compared to incumbents who face a non-ideological primary challenge.

To test these hypotheses, we explore the voting patterns of members in the U.S. House of Representatives. The House provides an ideal test case for this theory for three reasons. First, the House has seen both parties hold majority party status fairly recently. Given our theory's dependence on majority party status, it is valuable to have both parties in the majority relatively recently. This will allow us to make sure a particular party in the majority is not driving the results. Second, the House has seen an influx of extreme ideological primary challenges. The presence of these extreme primary challenges means that incumbents who survive take the threat of a future primary challenge seriously. This suggests that voting decisions in the House are, for many members, very likely to be linked to primary concerns. In addition, the success of the Tea Party in congressional elections, especially in 2010 and 2012, even if much of that success happened only at the primary level, indicates that these primary threats are a legitimate concern for members. In fact, studies examining the effect of Tea Party challenges show that the presence of Tea Party challenges in the 2010 primary elections actually elevated Republican vote share in the general election (Jewitt and Treul 2014). This suggests that primaries with more extreme ideological candidates are enticing voters to support the party on election day, making the threat posed by these challenges all the more relevant to the electoral fortunes of members of Congress. Third, the presence of

polarization in the House today means that members are typically asked to take clear stances on controversial issues. When these controversial issues come before the chamber, members, especially those of the majority party, must decide whether to vote with the party or withhold their support. This is important for our theory, as this institutional setup means that members of the majority will be forced to decide numerous times whether to support or turn away from their own party.

Data and methods

In the following review, our unit of analysis is incumbents in the U.S. House who faced primary challenges between 2000 and 2012. We examine only House incumbents who face a primary challenge, win their primary, and win the subsequent general election and return to Congress. We exclude incumbents who face an ideological primary challenge and do not return to the House, either because they lose the primary or lose the general election. Because of our conceptualization and operationalization of the dependent variables, which compare voting behavior in the Congress prior to and immediately after the ideological challenge, we need to limit our analysis to incumbents who return to the House. In our data there are 601 members who faced a primary challenge (of any type) and were subsequently reelected to Congress.

Given our theoretical expectation that the relationship between ideological primaries and voting behavior is conditioned on party status, we are interested in the extent to which a member of Congress votes with her party upon returning to Washington. Rather than looking simply at a member's roll call positions, we are more concerned with the extent to which a majority party member demonstrates ideological independence. A majority party member exhibiting ideological independence from his or her party can be captured by the percent of time that the majority party member votes against their own party, which we operationalize as the percent of time that the member votes with the Minority Party Leader.

More specifically, our dependent variable in Models 1 and 2 is the change in the percent of time the member votes with the Minority Party Leader on all roll calls from the Congress before the primary challenge and the Congress following the primary challenge.[9] In other words, if an incumbent was challenged in a 2010 primary election, we calculate the dependent variable for the incumbent by taking the difference in the percent of the time the member voted with the Minority Leader from the 111th and 112th Congresses.[10] In Model 3, instead of examining all roll calls, we focus on key votes. The dependent variable is the change in the

percent of the time the member voted with the Minority Leader on just key votes before and after the primary challenge.[11]

Our primary independent variable captures whether the member of Congress experiences an *extreme ideological challenge* in the primary. This is measured first using Boatright's classification and data. Boatright (2014) compiled a data set of primary challenges by using the *America Votes* series for the results of congressional primaries through 2010. Included in these data is a variable for the foremost reason behind the primary challenge—one of the categories coded was extreme ideological challenge. Here "extreme" means a challenge that happens from the incumbent's far right or left position (i.e., not a challenge from a more moderate candidate). We added the 2012 election to these data utilizing the descriptions of the primary races from the *Almanac of American Politics and Politics in America* series to determine the chief reason the challenger emerged.[12] Because we are interested in the influence of an ideological challenge, we collapsed Boatright's classification into an indicator variable for whether the main reason for the challenge was because the incumbent was perceived as too moderate. A value of 1 on this variable indicates that the incumbent faced an extreme ideological challenge, or a challenge from the left for Democrats or from the right for Republicans. Incumbents who faced a primary challenge, but the challenge was not considered to be an extreme ideological challenge, receive a value of 0 on this variable. In our data 37 challenges are classified as ideological, which represents 6.16% of the cases. If we include Tea Party challengers in 2010 and 2012, this number increases to 67 (11.15% of the cases).

As a validation of our ideological measure, we also estimate the models presented following using Bonica's (2016) Database on Ideology, Money in Politics, and Elections (DIME). The DIME database assigns candidates for office a common space CF score, which is calculated based on the financial contributions to a candidate's campaign, and provides a measure of candidate ideology. Unfortunately, only about 60% of congressional primary candidates are assigned a CF score. The primary reason a candidate does not have a CF score is because he or she has too few campaign contributions (i.e., a challenger receives nearly all money from two or three contributors). We chose to utilize our ideological measure described previously because we lose many primary candidates in our analysis when we fit the models with CF scores. More specifically, our N drops from 601 to 286. Among those that we have coded as ideological, 50 have a CF score. Forty-nine of those challengers have a CF score that is at least a standard deviation above the mean CF score in the DIME data. This correspondence validates our measure, as it shows these challengers are considered ideologically extreme using Bonica's measure as well.

To test our theoretical expectations that members of the House of Representatives will react differently to an ideological challenge depending on whether the member is in the majority or minority party, we included a dummy variable for *Majority Party* and an interaction term, *Majority Party*Ideological Challenge*. The variable for *Majority Party* is coded to reflect the status of the incumbent's party in the Congress following the election.

In addition to our *extreme ideological challenge* variable, we include a variable capturing competitiveness. In our models, we operationalize a competitive primary by coding a dichotomous variable with a value of 1 indicating that the incumbent won the primary, but captured less than 75% of the vote share.[13] As Boatright (2014) explains, measuring competitiveness using this 75% standard is useful because it filters out non-serious challengers who did not raise enough money to file with the Federal Elections Commission. Challengers who do not meet this level of success in the primary are unlikely to garner serious attention from the incumbent. Including this variable in our models, along with a variable capturing whether the incumbent was challenged on ideological grounds, allows us to separate out competitiveness and divisiveness and focus on the effects of divisiveness on behavior in Congress.

We also control for several other variables. *District ideology* is measured as the presidential vote for the candidate of the House minority party in the most recent presidential election. For example, when the Democratic Party is the majority and the Republican Party is the minority, we use the Republican presidential candidate's vote share in the district in the most recent presidential election. When the Republican Party controls the House, we use the Democratic presidential candidate's vote share in the most recent election. The variable is meant to capture the underlying ideology of the district and whether the constituents are supportive of the minority party in the House. The higher the value on this variable, the more supportive the district was to the presidential candidate of the minority party.

We include variables indicating whether the primary was closed or semi-open, leaving open as the base category. Other control variables capture the incumbent's *vote share in the general election* and *in-party spending*.[14] Higher values on these variables indicate that the incumbent captured a greater share of the general election vote and that the party of the incumbent spent more money on the general election race. We control for the incumbent's vote share in the general election because higher values on this variable should indicate that the incumbent is less vulnerable in the general election and thus may only need to worry about pleasing his or her primary constituency and party rather than choosing an ideological

Table 1. The impact of extreme ideological primary challenges on roll call voting in the House.

	Model 1 β (Robust Std. Error)	Model 2 β (Robust Std. Error)
Extreme Ideological Challenge Including Tea Party	−3.228	
	(14.297)	
Extreme Ideological Challenge Without the Tea Party		−3.908
		(14.309)
Competitive Primary	−2.223*	−2.646*
	(1.195)	(1.218)
Majority Party	2.721*	2.660*
	(1.098)	(1.070)
Majority Party*Ideological Challenge	6.582	9.939*
	(14.390)	(14.555)
Closed Primary	−2.474*	−2.502*
	(1.303)	(1.297)
Semi-Open Primary	−0.820	−0.725
	(1.303)	(1.300)
District Ideology	−0.052*	−0.055*
	(0.026)	(0.026)
Vote Share in General Election	−12.527*	−12.992*
	(4.161)	(4.167)
In-party Spending	−0.735	−0.800
	(0.807)	(0.803)
Constant	92.575*	94.096*
	(11.743)	(11.712)
Number of Cases	601	601
R-Squared	0.062	0.068
	$F_{(9,591)}$	$F_{(9,591)}$
	4.02	4.19

Note: These cases include U.S. House races between 2000 and 2012 where an incumbent defeated a primary challenge and returned to Congress. The dependent variable is the change in the percent of the time the member voted with the Minority Leader on all roll calls. The first model includes primary challengers who were affiliated with the Tea Party. The second model excludes the Tea Party from the variable *Extreme Ideological Challenge* to make sure the Tea Party is not driving the results. Cell entries are unstandardized OLS regression coefficients with robust standard errors.

*= $p \leq .10$.

position between the general election and primary constituencies. The money spent by the incumbent's party in the general election is meant to capture how closely tied the incumbent already is to the party. We expect those incumbents who receive higher levels of party support to be more loyal to the party on votes.

The effect of ideological primaries on roll call voting in the U.S. House

To test whether a member who faces an ideological primary challenge and is a member of the majority party is increasingly likely to vote with the minority party upon returning to the House, we employ an OLS regression model. Model 1 in Table 1 examines the impact of ideological primary challenges on roll call votes in the House. The dependent variable is the change in the percent of the time the member voted with the Minority Leader on all roll calls. The model utilizes the higher and more standard threshold of competitiveness, which only classifies a primary as competitive if the incumbent receives less than 75% of the vote. For Model 1, the

independent variable *Extreme Ideological Challenge* includes those primaries where the challenger identified as a Tea Party candidate. In Model 2 in Table 1, the variable *Extreme Ideological Challenge* does not include those challengers who identified as Tea Party candidates. We fit the model both ways to make sure the presence of Tea Party challengers was not driving the results.[15]

Our investigation centers on how members of Congress respond to primary challenges, comparing those members who faced ideological primary challenges with those who faced non-ideological primary challenges. Because we theorize that members' behavior will depend on whether they are members of the majority party or the minority party, we explore this relationship first for members of the minority party and then for members of the majority party. To review, we hypothesize that for minority party members, regardless of whether they faced an ideological or non-ideological primary, there would be no difference in their propensity to vote with their party leader. We contend that minority party members do not have an avenue for expressing ideological independence through their roll call votes, as they should vote against the majority party regardless of the type of primary challenge they faced. The coefficient for *Extreme Ideological Challenge*, with or without the Tea Party candidates, allows us to test this expectation for minority party members. The negative coefficient is not statistically significant in either model, confirming our first hypothesis. In other words, when comparing the change in their support for the Minority Party Leader on all roll calls before and after their primary challenge, there is no significant difference between minority party members who faced an ideological challenge and those who had a non-ideological primary.

Whereas we did not expect to see differences in the voting behavior of minority party members based on the type of primary challenge they experienced, we expect to find significant differences for majority party members. Our second hypothesis contends that majority party members facing an ideological primary challenge will vote against their party more frequently than majority party members who return to the House after a non-ideological primary challenge. In order to test this hypothesis for majority party members, we calculate the appropriate linear combination from the interaction term and the constitutive variables, which is also presented in Table 2 for clarity. Our results show that among majority party incumbents, those who defeated an ideological primary challenge (including Tea Party candidates) have a 3.35% increase in the percent of time they vote with the Minority Party Leader on all roll call votes upon returning to the House, compared to those who faced a non-ideological primary challenge. When we take the Tea Party challenges out, we also see an increase in the percent of the time the majority party incumbent is voting with the Minority Party Leader on roll calls. These returning incumbents vote with

Table 2. Comparing the impact of ideological primary challenges and majority party status on support for the Minority Party Leader on all roll call votes.

Model 1 β (Robust Std. Error)	Model 2 β (Robust Std. Error)
H1: Ideological Minority Compared to Non-ideological Minority	
−3.228	−3.098
(14.297)	(14.309)
H2: Ideological Majority Compared to Non-ideological Majority	
3.354*	6.841*
(1.989)	(3.039)

Note: These comparisons are based on Models 1 and 2 in Table 1. They depict the difference between groups in voting with the Minority Party Leader on roll calls. The *N* includes House races between 2000 and 2012 where an incumbent defeated a primary challenge. 'Ideological' indicates that the incumbent faced an extreme ideological primary challenge whereas 'non-ideological' means that the incumbent faced a primary challenge that was not ideological in nature. 'Majority' means that the incumbent returned to the House as a member of the majority party, whereas 'minority' represents incumbents who returned to the House as a member of the minority party.
*$= p \leq .10$.

the Minority Leader 6.84% more often. Taking Tea Party challenges out of the ideological measure actually increases the substantive effect of the variable. Regardless of what model we fit, majority party incumbents who face an ideological primary challenge are less supportive of their party upon returning to the House than majority party incumbents who face a non-ideological primary challenge; compared to the Congress before the primary challenge, majority party members with an ideological primary challenge vote with the Minority Party Leader 3%–7% more often than their party counterparts who faced a non-ideological challenge. Majority party incumbents who have faced and defeated an ideological primary challenger demonstrate their independence from their own party and ideological extremism by voting more often against their party.

The previous analysis explores the effect of ideological and non-ideological primaries and members' agreement with the minority party, looking at members of the majority and minority parties separately. Our findings demonstrate that extreme ideological primaries affect congressional members' voting behavior on the House floor, depending on whether they are members of the majority party. In addition, the positive, statistically significant coefficient for *Majority Party* in both models reveals that when comparing representatives who faced non-ideological primary challenges, on average, majority party members exhibit a greater increase in the change in the percent of time they agreed with the Minority Party Leader upon returning to the House than minority party members. More specifically, majority party members who faced a non-ideological primary challenge experience increased agreement with the Minority Party Leader by about 2.7% (both models) compared to minority party members who faced a non-ideological primary. In other words, even after facing a non-ideological primary, majority party members are voting more frequently against their party leadership then they were in the previous Congress. Essentially, this

finding indicates that majority party members who are primaried, even if that primary challenge is not ideological in nature, vote with the Minority Party Leader more than they did in the previous Congress. Because members of Congress are strategic, this increased ideological extremism may be a way for these members to ward off a potential ideological challenge in the future. It may also be that the experience of a primary challenge, even one that is non-ideological in nature, is enough to encourage a member of the majority to change his or her behavior a bit and exhibit greater independence from the majority party leadership.

The negative, statistically significant coefficient for *competitive primary* suggests that, holding all else equal, members of Congress who face a competitive primary decrease their support for the Minority Party Leader compared to incumbents whose primary was noncompetitive. Our results also suggest that for every percentage point increase the minority party's presidential candidate received in the incumbent's district, the incumbent sees, on average, a 0.05% decrease in support for the Minority Party Leader. Holding all else constant, we also see that incumbents who perform better in the general election have a decrease in the time that they support the Minority Party Leader in the Congress before and after their primary challenge.

Models 1 and 2 examine the effect of extreme ideological primary challenges on the change in the percent of time the member voted with the Minority Party Leader on all roll calls. These models demonstrate that the relationship between primary challenges and voting behavior in the House of Representatives is conditioned on whether the incumbent is a member of the majority or minority party and whether the primary challenge is ideologically extreme or not. Similar to our decision to exclude the Tea Party as a part of the ideological classification in Model 2, we fit the model for just the Democrats to make sure the findings were robust.[16] The key results of this model (presented in the Appendix), including the linear combination of the interaction term, are statistically and substantively the same, providing assurance that this dynamic is not operating in only one party.

Next, we test our theory utilizing a different dependent variable. Instead of analyzing all roll calls, in Model 3 in Table 3 we look only at those votes that are considered key votes. The dependent variable in this model is operationalized as the change in the percent of the time the member voted with the Minority Party Leader on key votes. According to *Congressional Quarterly*, key votes are selected based on the extent to which they meet one or more of the following criteria: a matter of major controversy, a test of presidential or political power, or have potential ramifications for the nation and the lives of Americans. Given these criteria, key votes are often likely to be more partisan. Furthermore, given their selection criteria, the

Table 3. The impact of extreme ideological primary challenges on key votes in the House.

	Model 3 β (Robust Std. Error)
Extreme Ideological Challenge	8.470*
	(1.771)
Competitive Primary	−0.105
	(1.316)
Majority Party	−2.179*
	(1.157)
Majority Party*	−3.086
Extreme Ideological Challenge	(2.707)
Closed Primary	−0.477
	(1.355)
Semi-Open Primary	−1.639
	(1.371)
District Ideology	0.046*
	(0.023)
Vote Share in General Election	−2.641
	(4.067)
In-party Spending	0.419
	(0.921)
Constant	81.006*
	(13.489)
Number of Cases	407
R-Squared	0.037
	$F_{(9,397)}$
	10.13

Note: These cases include U.S. House races between 2000 and 2012 where an incumbent defeated a primary challenge and returned to Congress. The dependent variable is the change in the percent of the time the member voted with the Minority Party Leader on key votes. Similarly to model 2 above, the model excludes the Tea Party from the variable *Ideological Challenge* to make sure the Tea Party is not driving the results. Cell entries are unstandardized OLS regression coefficients with robust standard errors.
*= $p \leq .10$.

general public and potential challengers are likely to be more aware of these votes. Therefore, a member of the majority party who faced an extreme ideological primary challenge may be more likely to side with the other party on these votes to prove their independent voting behavior.[17] If we find an effect for members of the majority who faced an ideological primary eschewing their own party on these select votes, we contend this provides even stronger support for our theory.[18]

Table 4 displays the relevant coefficients and linear combinations for Model 3 (full model presented in Table 3) that explore the relationship between majority party status, type of primary challenge, and change in support for the Minority Party Leader. We assess our first hypothesis by comparing those members of the minority party who faced an extreme ideological primary challenge to members of the minority party who faced a non-extreme ideological primary challenge. Examining the *Extreme Ideological Challenge* coefficient, which is reproduced in the first comparison in Table 4, we see a statistically significant difference between the two minority party groups. The change in support for the Minority Leader on key votes is approximately 8.47% higher for members of the minority party who faced an ideological challenge compared to minority party members who faced a non-ideological primary challenge. Although we did not

Table 4. Comparing the impact of extreme ideological primary challenges and majority party status on support for the Minority Party Leader on key votes.

β (Robust Std. Error)
H1: Ideological Minority Compared to Non-ideological Minority
8.47*
(1.77)
H2: Ideological Majority Compared to Non-ideological Majority
5.38*
(2.49)

Note: These comparisons are based on Model 3 in Table 3. The dependent variable for this model is the change in the percent of the time the member votes with the Minority Party Leader on key votes from the Congress before a primary challenge to the one following it. The two comparisons depict the difference in voting with the Minority Party Leader when comparing one group to another group and are based on House races between 2000 and 2012 where an incumbent defeated a primary challenge. Ideological indicates that the incumbent faced an 'ideological' primary challenge while 'non-ideological' means that the incumbent faced a primary challenge that was not classified as an ideological challenge. 'Majority' means that the incumbent returned to the House as a member of the majority party, while 'minority' represents incumbents who returned to the House as a member of the minority party.
*= $p \leq .10$.

hypothesize a statistically significant relationship for minority party members, or find a statistically significant result when looking at all roll call votes, a significant difference emerges when examining key votes. It could be that minority party members who faced ideological challenges are acutely aware of the repercussions should they choose not to support the party on these key votes; therefore, unlike for all roll calls, these party members are particularly susceptible to party pressures (which are likely more intense on key votes) and are keen to vote with the party on these votes.

To test our second hypothesis, we compare members of the majority party who faced an ideological primary challenge to members of the majority who faced a non-ideological primary challenge. We expect that among majority party members, those who had an ideological primary challenge will vote against their party more frequently (and thus with the minority party more often) than those who defeated a non-ideological primary challenge. As is seen in the second comparison in Table 4, the results here indicate that majority members who faced an extreme ideological challenge are 5.38% more likely to vote with the Minority Party Leader on key votes after returning to the House than members of the majority who faced a non-ideological primary challenge.[19] In sum, majority party members who face ideological primary challenges return to Congress and vote more often with the Minority Party Leader on key votes than they did in the previous Congress. In other words, they vote against their party to a much greater extent than their same-party colleagues who faced a non-ideological primary challenge. These majority party members who have experienced an ideological primary challenge change their behavior in Congress to demonstrate independence and hopefully ward off subsequent ideological primary challenges.

Conclusion

Extreme ideological challenges are becoming increasingly common in congressional primaries. In fact, in 2008 and 2010, the most common reason for a primary challenge was ideology (Boatright 2014). Although many incumbents are able to successfully defeat these types of challengers, the question remains: Do these challenges affect the incumbent's legislative behavior once back in Congress? Past literature examining this question has always theorized, but not confirmed, that these types of challenges should make members of Congress become more partisan and extreme in their voting records. We argue that measuring the effect of ideological primaries is really not as simple as that, as it is conditioned on whether members belong to the majority or the minority party in Congress.

Members of the minority party who face an ideological challenge have a difficult time proving that they are moving their legislative behavior away from center—by virtue of being a member of the minority. In other words, a 'no' vote on a bill favored by the majority is still a 'no' vote regardless of the member's ideological position. Voting in support of the majority party position does not signal ideological extremism. Members of the majority, on the other hand, have two options upon returning to Congress. They can cast votes with their (majority) party or they can vote against their (majority) party in an attempt to convince the constituency and future challengers that they are more extreme than the party, which is why they are not able to support all of the party's positions. Thus when it comes to measuring changes in voting behavior, we theorize and find that members of the majority are actually less likely to vote with the party after an extreme, ideological primary challenge.

The results of our analysis, examining the 2000–2012 elections in which incumbent members of the House faced primary challenges, support our theory. We show that among incumbents who return to the House as members of the minority party, no significant relationship exists between experiencing an ideological primary and a non-ideological primary challenge on the percent of the time that they vote with their party leader on all roll calls. We do, however, find that on key votes, members of the minority party significantly increase the percent of the time they vote with their party leader. Although we did not necessarily expect this finding for key votes, we believe that it makes sense for two reasons. First, given the nature of key votes, these are the votes most likely to generate attention back home in the district and give a potential primary challenger ammunition for another run at the incumbent. Second, the party leadership is the most likely to whip members on key votes. Taken together, we believe these two reasons explain the significant increase in the partisan behavior of minority members on key votes following an ideological primary challenge.

For majority party members, however, we show that an ideological primary challenge results in a 3.4% increase in voting against their own party on all roll calls, on average, when compared to majority party members who face a non-ideological primary challenge.[20] Similarly, majority party members who faced an ideological primary challenge are 5.4% more likely to vote against their own party on key votes than are members of the majority party who faced a non-ideological primary challenge. Upon returning to Washington, majority party members who faced an ideological primary are voting against their party—both on all roll calls and on key votes—to a greater extent than their majority party colleagues who defeated a primary challenge that was not ideological in nature. Members of the majority party need a way to demonstrate their extremism and their best way to do this via votes is to vote against the party, proclaiming the party is simply not extreme enough.

There are many other potential consequences of ideological challenges on congressional behavior. Unfortunately, many of the likely consequences of these types of primaries are difficult to measure. At the institutional level anecdotal evidence suggests that party leaders are practicing negative agenda control and keeping certain bills off the congressional calendar. Party leaders engage in this behavior to help their members avoid votes that might encourage potential ideological challenges. For example, in 2013 and 2014 House Speaker John Boehner (R-OH) likely kept legislation on immigration reform off the agenda so that his members would not have to cast difficult votes that would encourage ideological primary challenges. If this is, in fact, occurring, this would be a major consequence of ideological primary challenges. However, it is nearly impossible to measure this type of negative agenda control, which may be a contributing factor as to why past studies may not have found the expected changes in voting behavior following ideological primary challenges. For now, we believe that demonstrating the individual-level consequences of ideological primary challenges helps to shed light on the fact that these types of primaries need to be taken seriously by the parties, incumbents, and voters.

Notes

1. The word 'ideological' is used in line with other work on congressional primaries that defines a challenge from the incumbents' extreme flank as an "ideological one." This classification is based on the issue positions/talking points of the candidates running and is explained in greater detail later in text.
2. We do find members of the minority who faced an ideological challenge are more likely to support their party on key votes in the Congress following the ideological challenge. This finding is discussed in greater detail in following text.
3. One possible explanation for the discrepancy between the conclusions of Jacobson (2012) and Sides et al. (2018) is their reliance on self-reported participation versus validated vote choice.

4. Looking at the openness of primary elections, rather than the competitiveness of the primary, McGhee et al. (2014) conclude that there is no effect on the ideological extremism of state legislators.
5. Of course, incumbents do not face primary challenges for only ideological reasons. Other types of primary challenges may also result in a member of Congress modifying voting behavior. Ideology, however, is an increasingly common reason that may motivate a primary challenge, and we believe that there is a strong theoretical rationale for expecting a member of Congress to react to an ideological challenge. In addition, our exploration of all incumbents who faced a primary challenge in addition to the inclusion of a variable capturing the competitiveness of the primary helps to parse out how members of Congress respond to a variety of primary challenges.
6. Kanthak and Morton (2001) contend that the relationship is more nuanced, noting the importance of distinguishing between how easy it is for voters to adopt or switch party affiliations at the polls, and suggesting that there may be differences between the parties as well.
7. Boatright (2014) has some of this information and utilizes it in his analysis, but he only examines changes in mean NOMINATE scores for incumbents who faced primary challenges and does not conduct a multivariate analysis that also controls for competitiveness. In addition, there are many primaries in his data for which the reason for the challenge is listed as "unknown."
8. As noted previously, from a formal modeling perspective, this act is not strictly rational because the member is voting against a bill which, strictly speaking, moves a policy closer to his or her ideal point. However, we argue that the signal sent by casting such a vote garners a member electoral benefits which outweigh the benefits the bill would bring. One such electoral benefit is the deterrence of a future, ideologically extreme challenger in a primary election.
9. We chose to use percent of the time that the member votes with the Minority Party Leader (opposed to Majority Party Leader) as it better illustrates our theoretical expectation of majority party members exhibiting their ideological extremism by voting against their party. For robustness, we fit models using agreement with the Majority Party Leader as well. The results do not change significantly. The roll call dependent variable includes procedural votes, but only if the minority leader cast a vote. We also fit the model just using key votes and this model is reported later. All roll call data were accessed at http://voteview.com/Party_Unity.htm
10. More important, our dependent variable is immune to changes in partisan control of Congress because it is created by utilizing the voting history of the Minority Party Leader in the Congress following the primary challenge and then utilizing that Leader's voting history in the previous Congress and comparing it to the member being analyzed. Thus, when there is a change in party control, the voting record is compared to whoever the Minority Party Leader is in the current Congress and that same Leader's voting record in the previous Congress, even if previously he or she was the Majority Party Leader or not a leader at all.
11. As described following, key votes are based on identification by Congressional Quarterly.
12. These categories include old age (i.e., the incumbent is old and should retire), scandal, a prominent national issue, or a focus on ideological position.
13. We also fit our models with a variable indicating that the incumbent won the primary, but captured less than 90% of the vote share, as Burden (2004) has done. Although a primary where an incumbent secured 89% of the primary vote may not

be considered highly competitive, this measure represents incumbents who faced non-trivial competition, or as Burden (2004) says, "more than token opposition." With this change in operationalization, our results do not change significantly or substantively.

14. In-party spending is the natural log of the amount spent in 2010 constant dollars.
15. Both models include Republican and Democratic incumbents who faced a primary challenge. The distinction between the models is that in the second model, if the challenger was classified as a Tea Party candidate, this is considered an ideological primary challenge. Table A in the Appendix provides models that look only at Democrats, to further demonstrate that the results are not driven by or confined to the Tea Party and/or the Republican Party.
16. Given that no Tea Party primary challenge occurred against a Democratic incumbent, we fit a single Democrats-only model. The full model and results can be seen in the Appendix.
17. There are two things to note about the key vote model. The first is that the *N* decreases. This is because we only fit the model for members who voted on all the key votes in a Congress. The second point to note is that we exclude any key votes where the majority party was rolled at final passage. In these cases, a vote with the minority party would be suggestive of a moderate position and therefore they are excluded.
18. We also fit this model for Democrats only. The results for this model can also be found in Table A in the Appendix.
19. As noted previously, we removed votes on which the majority party was rolled from this model.
20. When considering ideological challenges that exclude Tea Party challengers, we observe a 6.8% increase.

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Appendix

Table A. The impact of extreme ideological primary challenges on Democratic voting in the House.

	All Roll Calls β (Robust Std. Error)	Key Votes β (Robust Std. Error)
Extreme Ideological Challenge	−5.135	6.405*
	(11.826)	(2.288)
Competitive Primary	−3.207	1.238
	(1.640)	(1.677)
Majority Party	7.823*	1.520
	(3.375)	(2.415)
Majority Party*	13.155	−6.822
Extreme Ideological Challenge	(12.160)	(4.851)
Closed Primary	−3.266*	−1.065
	(1.660)	(1.727)
Semi-Open Primary	−2.304	−2.838*
	(1.620)	(1.661)
District Ideology	−0.183*	−0.059
	(0.076)	(0.056)
Vote Share in General Election	−5.106*	9.519*
	(4.800)	(4.775)
In-party Spending	−1.031	1.281
	(1.216)	(1.090)
Constant	101.584*	67.840*
	(17.276)	(16.032)
Number of Cases	317	224
R-Squared	0.069	0.048
	$F_{(9,307)}$	$F_{(9,214)}$
	2.50	7.04

Note: These cases include U.S. House races between 2000 and 2012 where a Democratic incumbent defeated a primary challenge and returned to Congress. Republicans are excluded from this model specification. The dependent variable in the first model is the change in the percent of the time the Democratic member voted with the Minority Party Leader on all roll calls. The dependent variable in the second model is the change in the percent of the time the member voted with the Minority Leader on key votes. Cell entries are unstandardized OLS regression coefficients with robust standard errors.

*= $p \leq .10$.