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Ideology and Participation: Examining the Constitutional Convention of 1787

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Abstract

This article looks at the effect of ideology on delegate participation at the Federal Convention of 1787. Making use of an original data set on delegate verbosity and delegate speeches at the Constitutional Convention, analysis reveals that ideologically extreme Convention delegates were more likely to participate at the Convention. This leads to two conclusions. First, ideology affected delegate participation in a meaningful way. Second, claims made about the intent of the writers of the Constitution based on Convention records are biased in favor of ideologically extreme Convention delegates, as extreme delegates were more likely to be recorded.

Keywords

Federal Convention of 1787, Constitutional Convention, legislative behavior, original intent, American Political Development (APD)

Using original intent requires understanding the nature of debate at the Constitutional Convention. I contribute to this understanding by investigating why certain delegates contributed and participated differently than others during the Convention debates. Convention delegates were members of a deliberative body; as such, they were goal-oriented actors (e.g., Fenno 1973, 1978; Mayhew 1974). I predicate my argument on the simple assumption that goal-oriented actors will not expend the resources required to make floor speeches if doing so does not help them achieve their goals. The purpose of this article is to determine to what extent delegate ideology impacted participation in floor debates at the Federal Convention of 1787.

In exploring the impact of delegate ideology on debate at the Convention, this article links recent work on the observable events of the Convention (e.g., Dougherty and Heckelman 2006, 2008; Heckelman and Dougherty 2013; Pope and Treier 2011, 2012, 2015; Robertson 2005, 2006) with literature from the field of legislative studies concerning legislator behavior. Scholars have examined how participation potentially influences co-legislators in other deliberative bodies, typically legislatures (e.g., Buchanan et al. 1960; Francis 1962; Kovenock 1973; Smith 1989). Others have scrutinized why legislators choose to participate in their respective bodies (e.g., Arnold 1990; Hall 1996; Maltzman and Sigelman 1996). In seeking to understand the determinants of floor participation in a parliamentary setting, Eggers and Spirling (2014) find that electoral and party factors influence legislator behavior. Others have found that gender influences participation (e.g., Karpowitz, Mendelberg, and Shaker 2012; Pearson

2013; Pearson and Dancey 2011). It could also be that floor participation in a legislative setting has direct benefits to legislators, advancing their preferred policy positions (e.g., Maltzman and Sigelman 1996; Martin and Vanberg 2004; Proksch and Slapin 2012).

Assessing the relationship between ideology and participation in a deliberative legislature is complicated by additional factors of legislative life such as partisan influences, electoral concerns, and agenda control. However, the Federal Convention of 1787 was not a legislature. Thus, it provides an opportunity to study this relationship without these potentially problematic considerations. Convention delegates were not subject to electoral constraints; floor debate was not subject to positive or negative agenda control, as any issue could be brought to the floor of the Convention (even if it had already been disposed of). In addition, delegates operated with freedom to express their views as a result of the rules of secrecy that prevented Convention proceedings from being shared with anyone outside the chamber. These conditions meant that delegates should have been in a position to engage in true deliberation where opinions were shared openly and decisions were the result of member preference over a given policy that was influenced to some degree by the discussion of

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that policy. Thus, the Constitutional Convention provides an excellent opportunity to study the impact of ideology on participation in a deliberative body.

The article makes several contributions. First, I create and make use of an original data set of all individual speeches at the Constitutional Convention. This allows for the first systematic assessment of delegate floor behavior at the Constitutional Convention. Second, I investigate the relationship between delegate ideology and delegate participation in floor debates. Finally, I provide an assessment of potential bias in my primary data source, the Convention notes of James Madison.

I find evidence that ideologically extreme delegates did participate at the Federal Convention significantly more than moderate delegates. I use original data on delegate participation at the Constitutional Convention to show that the higher level of participation by ideologically extreme delegates is true in terms of both the number and length of their contributions to the recorded Convention debates. Furthermore, these results hold across several different analyses of the data. These findings not only demonstrate that ideology has an important influence on floor participation in a deliberative setting, but also throw doubt on the usefulness of claims made by modern politicians and jurists predicated on original intent, as these assertions may be skewed from the actual process that guided the creation of the Federal Constitution.

Foundations

Research about the Constitutional Convention predominantly uses a single source, Farrand's *Records of the Federal Convention of 1787* (hereafter referred to as either "Farrand's *Records*" or simply "the *Records*"). The *Records* bring together the personal diaries and notes of several of the Convention delegates and the official Journal of the Convention. The materials were arranged chronologically by Farrand in 1911 and issued in a revised condition in 1937 in the *Records of the Federal Convention of 1787*.¹ The three documents collected together in the *Records* that provide the most information about daily proceedings are the official Journal, the notes of James Madison (delegate from Virginia), and the notes of Robert Yates (delegate from New York). The official Journal is no more than a base outline of the proceedings along with a record of the roll call votes.² Madison's notes are by far the most extensive and detailed of any of the source materials; Yates's notes provide the greatest detail aside from Madison's. Scholars have noted that Madison revised his notes several times prior to his death (Bildler 2015; Farrand 1966), potentially calling into question the accuracy of his account. Following the analysis of delegate behavior, I show that Madison's notes

show no discernible bias or discrimination, making them a viable empirical data source.

The *Records* provide nearly the whole of the historical record of this event as the Convention operated under rules of secrecy (delegates were forbidden from discussing proceedings with anyone other than fellow delegates, and daily debate was held with windows closed and shades drawn). At the conclusion of the Convention, the Convention secretary burned many of his notes and turned the official Journal over to George Washington for safekeeping. Washington then turned these papers over to the State Department in 1796 (Farrand 1966). A joint resolution of Congress in 1818 forced the publication of these papers which were compiled by then Secretary of State John Quincy Adams along with various delegate notes in 1819.³ Prior to this, the public had no knowledge that records of the Convention even existed.

Efforts to understand the intentions of the delegates have long been ongoing. In the 228 years since the ratification of the Constitution, a variety of scholarship on the topic has emerged. Pre-Progressive Era historians typically treated delegates as idealistic demi-gods driven by love of freedom and liberty (see, for example, Gladstone 1878; Walker 1895). More contemporary historians have dialed back on the rhetoric but still maintain that the delegates acted as they did due to ideological concerns (e.g., Bailyn 1967; Rakove 1996; Wood 1967). Others have investigated whether delegates may have acted out of economic self-interest (e.g., Beard 1966; Brown 1956; Heckelman and Dougherty 2007, 2010; McDonald 1958; McGuire 1988, 2003; McGuire and Ohsfeldt 1986).

This study follows a tradition begun by McDonald (1958) in using individual roll call votes from the Constitutional Convention to assess delegate behavior during the Convention. Under the rules of the Convention, voting was carried out by the states, not individual delegates. Thus, only the votes of the states were recorded. McDonald "deciphered" sixteen of the state votes into individual roll calls by using attendance records, public statements by delegates, and private letters. Using the same technique, Dougherty and Heckelman (2008) expand the number of deciphered votes to twenty-eight. Dougherty et al. (2012) detail the creation of a new database of all individual roll calls (a total of 569 votes) at the Constitutional Convention.

Improved information on delegate voting has led to an increase in looking at the content of the Convention rather than the delegates. One area that has received a fair amount of attention is the dimensions and issues of debate at the Convention (e.g., Dougherty and Heckelman 2006, 2008; Pope and Treier 2011, 2012; Heckelman and Dougherty 2013). Despite the interest in both delegate characteristics and the content of the Convention, a few scholars have tried to assess how individual delegates

impacted the debates of the Convention. Robertson (2005, 2006) and Dougherty and Heckelman (2006) examine how the behavior of Roger Sherman (Connecticut) influenced the course of the Convention and subsequent content of the Constitution.

This study addresses how systematic delegate behavior shaped the output of the Constitutional Convention, something that has not yet been investigated. The need for such research is clear. Both the Supreme Court and lower courts frequently cite not only the Constitution but also the proceedings of the Convention in their opinions (Hutson 1986; Maggs 2007). Yet drawing on these documents as evidence of original intent of the Framers may not be so straightforward. If the proceedings of Convention debate do not faithfully reflect the thinking of the majority of those voting in favor or against particular motions, then the reason that those same delegates voted as they did cannot be gleaned from the records of the Convention.⁴

Explanations for Delegate Verbosity

A possible explanation as to why ideologically extreme delegates participate in debate at a higher rate than moderate delegates comes from strategic thinking about delegate behavior. Contest models (e.g., Hirshleifer 1991) suggest that delegates will exert an effort cost in expectation of gaining utility in the long term via outcomes more in line with their own policy preferences. Legislative bargaining models suggest that legislators act strategically when proposing policies and voting (Baron and Ferejohn 1989). More recent models of legislative bargaining aver that legislators will continue to propose policies more favorable to their own ideal points so long as they do not lose their majority voting coalition (Diermeier and Fong 2008, 2011). Importantly for a potential application to the Constitutional Convention, this holds even with the introduction of a motion to reconsider within the legislative setting (Diermeier and Fong 2011). Finally, some models of legislative bargaining also find that only more extreme legislators will participate in attempting to propose policies (Fong and Deng 2011). Taken together, these two broad classes of models suggest that legislators, members of deliberative bodies, speak more often (i.e., exert increased effort) to secure outcomes closer to their own policy preferences (i.e., ideologies).

Thus, it could be that ideologically extreme delegates participate at a higher rate than ideologically moderate delegates because they advocate for their positions more strongly. Consider that everything else equal, motions proposed by more ideologically extreme delegates are less popular than motions proposed by more moderate delegates. Ideologically moderate delegates are more likely to have their preferred positions adopted because

their positions are closer to the ideological center of the deliberative body (and, perhaps, the status quo). Moderate delegates do not need to engage in lengthy defense of their preferred positions to gain support, unlike more extreme delegates. Proposals closer to the median are more likely to pass regardless of delegates' verbal support. Therefore, delegates at the extremes speak more in hopes of creating support for proposals that are further from the median position.⁵

In the following analysis, I use a unidimensional preference scale to analyze which delegates spoke more at the Convention and why. Delegate ideology is measured on a single dimension based on preferences over the scope of the proposed national government.⁶ My hypothesis is that delegate verbosity increases as delegate ideology becomes more extreme. Intuitively, delegates with stronger preferences over the size and scope of the proposed national government (i.e., more extreme on the single dimensional scale) should speak more often and at greater length than their more moderate peers. To test this hypothesis, I compare delegate ideological positions to both how frequently and how much they spoke during the daily debates of the Constitutional Convention. The hypothesis will be supported if delegates at the ideological extremes talk more (measured in the number of speeches that they give as well as the duration of those speeches) than those delegates closer to the ideological center. The empirical assessment of this hypothesis comes in the "Aggregate Delegate Analysis" section using original data on aggregate delegate verbosity. I test the theoretical explanation of delegate behavior suggested above by using a measure of the ideological distance between the ideology of a delegate who makes a given speech and delegates who spoke prior to that. The empirical assessment of this hypothesis comes in the "Analysis of Convention Speeches" section using an original data set of all recorded delegate speeches in Madison's notes from the Convention collected in Farrand's *Records*.

Aggregate Delegate Analysis

To assess whether ideologically extreme delegates participated in Convention debates more than ideologically moderate delegates, I collected original data on how often and at what length delegates spoke at the Convention. I employ several techniques to determine the relationship between delegate verbosity and ideology. First, I use a basic frequency analysis. I then use measures of delegate speech volume and delegate speech counts as the dependent variables in regression analyses. I discuss robustness checks to these analyses throughout the section. Before moving onto the empirical inquiries, I first describe the variables used.

Variables

The dependent variable is one of two measures of how much a delegate spoke. The first, *Speech Number*, is the total number of times a delegate was recorded as speaking at the Convention in Madison's notes. The data were obtained from Farrand's *Records* by the author. This variable captures the aggregate amount that a delegate participated in daily debate at the Convention. The average delegate spoke 56.86 times, while the median delegate spoke 32 times.⁷

The second dependent variable is *Verbosity Length*. *Verbosity Length* is the length a delegate spoke over the entirety of the Constitutional Convention. *Verbosity Length* is measured as the total vertical space, in millimeters, that a delegate has in the transcript of the Convention as reported in Madison's notes (Farrand 1966). The measure is an approximation of the number of lines of speech produced by a delegate at the Convention.⁸ On average, 15 millimeters of continuous vertical text is equal to four lines of text and each line of text contains roughly 8.84 words. The range of the data is quite large, with an average delegate having 1,889 millimeters of recorded text (126 lines or 1,114 words) across the course of the Convention.⁹ These data were collected by the author.¹⁰

The key explanatory variable is *Ideology*, a one-dimensional ideological measure of delegate positions at the Federal Convention of 1787 using W-NOMINATE (Heckelman and Dougherty 2013; Poole and Rosenthal 1985). The scores are based on individual delegate votes inferred on all substantive roll calls at the Constitutional Convention (Dougherty et al. 2012). The lower bound of the Convention W-NOMINATE scores has a value of negative one and is associated with extreme pro-states rights and anti-national government preferences. Delegates such as Elbridge Gerry, Luther Martin, and John Lansing, Jr., all of whom vehemently objected to the final product of the Convention, are at the extreme negative end of the ideological scale. The upper bound of the W-NOMINATE scores has a value of positive one and is associated with a preference for a strong national government. Delegates such as James Madison, James Wilson, and George Read, all champions of the Convention during the later debates over ratification, are located at the extreme upper end of the W-NOMINATE scores.

I use two additional measures of delegate ideology. *Ideology*² is simply *Ideology* squared. *Absolute Ideology* was created by taking the absolute value of *Ideology*, which folds the scale of -1 to 1 to 0 to 1 .¹¹ The purpose of these variables is to test two competing functional forms. The absolute form merely asks if more extreme delegates have higher levels of verbosity while the quadratic form allows anti-national government and pro-national government ideologues to be considered separately. The

status quo of the Convention is continued government under the Articles of Confederation, an arrangement where little power vested in a national government and states retain most of the power. As such, it is easy to imagine that pro-nationalists have very different incentives to pro-localists. Therefore, while *Absolute Ideology* treats extremists of both groups as the same, a model with both *Ideology* and *Ideology*² allows potential differences in behavior between extreme pro-nationalists and pro-localists to be identified.

Control variables exhibit a good deal of variation and include *Age*, *College*, *Legislative Experience*, *Political Experience*, and *Days Present*.¹² *Age* is the age of a delegate at the time of the Convention (the summer of 1787). The youngest delegate at the Convention was Jonathan Dayton at twenty-six, while the oldest was Benjamin Franklin at eighty-one; the average delegate age was forty-three. Data for this measure are from Heckelman and Dougherty (2013). The expectation is that the older a delegate was, the more likely he was to participate in debate (i.e., be more verbose). This expectation is based on the idea that older delegates were more comfortable asserting themselves and were more likely to see themselves as vocal leaders because of their seniority.

College is a dichotomous measure that indicates whether a delegate had a formal college education. Delegates are coded "1" if they attended college (in the colonies or abroad) and a "0" otherwise. The median Convention delegate had a college education. Data for this measure are from Heckelman and Dougherty (2013). The expectation is that delegates who attended college were more verbose than delegates who did not. A college education should give delegates greater rhetorical abilities because of the classical nature of formal education during the eighteenth century, which in turn would make them more likely to speak than other delegates who lack this type of training.

Legislative Experience is a measure of the total number of years that a delegate had previously served in local, state, or national legislatures. The average delegate had eight years of legislative service prior to the Convention. Data for this measure are from Heckelman and Dougherty (2013). Legislative bodies are deliberative bodies in which the ability to engage in debate and public speaking is prized. Presumably increased familiarity with a legislative setting would embolden a delegate to participate at a greater rate than a delegate without as much legislative experience. Thus, as *Legislative Experience* increases, a corresponding positive increase in verbosity is expected.

Days Present is a count of the number of days that a delegate was in attendance at the Convention. The Convention was in session for eighty-five days, and it makes sense that the more days a delegate was in attendance, the more likely they would participate in debate.

Table 1. Regression Results of OLS Models for *Verbosity Length*.

| Variable | Quadratic model | Absolute model |
|------------------------------|--------------------------|---------------------------|
| Intercept | -2,915.716** (1,143.019) | -3,330.261*** (1,221.190) |
| <i>Ideology absolute</i> | 971.180 (689.352) | 3,187.881** (1,267.190) |
| <i>Ideology</i> | | |
| <i>Ideology</i> ² | 2,876.598** (1,320.299) | |
| Age | 14.240 (30.628) | -9.425 (35.419) |
| College | 1,298.796* (645.117) | 1,404.592** (616.324) |
| Legislative experience | 106.837 (17.317) | 147.402 (104.444) |
| Days present | 17.317 (13.930) | 24.695* (14.465) |
| N | | 41 |
| R ² | .380 | .331 |
| AIC | 754.269 | 755.375 |

Robust standard errors are in parentheses. OLS = ordinary least squares; AIC = Akaike information criterion.
*Significant at the .1 level. **Significant at the .05 level. ***Significant at the .01 level.

Some delegates had sporadic attendance while others were there every day. Others arrived late or left early.

Additional Notes on the Data

Only fifty-five delegates attended the Convention. Of these fifty-five, two, Wythe (VA) and Houston (NJ), are traditionally omitted from analysis of the Convention because they attended for less than two weeks. Eleven additional delegates are dropped because they do not have enough roll call positions to create a W-NOMINATE score. A twelfth delegate, Convention President George Washington, is included in one set of analyses and excluded from the other. Washington spoke only a handful of times at the opening and closing of the Convention. In his closing speech to the remaining delegates, Washington revealed that he purposefully refrained from voicing his opinions for fear of unduly influencing the proceedings (Farrand 1966, Vol. II). To ensure that Washington's strategic non-participation does not affect the results, the models are estimated both ways though the substantive results remain unchanged.

Analysis of Delegate Verbosity

In this section, I discuss regression analysis of aggregate delegate speech using ordinary least squares (OLS). This analysis builds on the previous section. Here, the dependent variable is *Verbosity Length* aggregated by delegate.¹³ Table 1 presents the results of the OLS regressions using two different functional forms.¹⁴

The joint significance of *Ideology* and *Ideology*² in the quadratic model and *Absolute Ideology* in the absolute model confirms the results of the frequency analysis of the previous section.¹⁵ The strong, positive effect of the variables of delegate ideology shows more ideologically extreme Convention delegates have a greater measure of

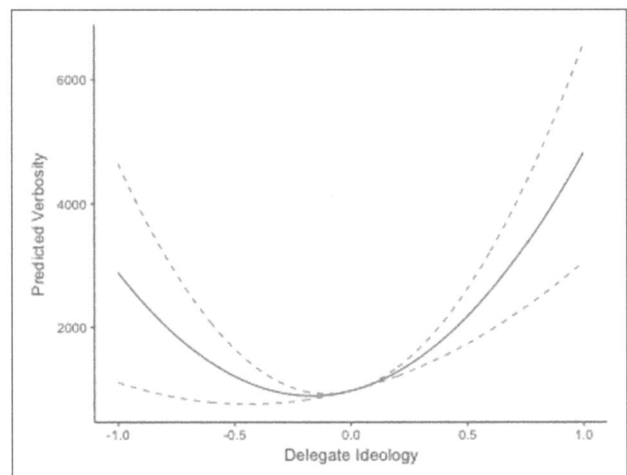


Figure 1. Predicted delegate verbosity for *Ideology* + *Ideology*² from Table 1.

observed verbosity. A delegate having graduated from college is also associated with greater delegate verbosity.

Figure 1 presents the predicted level of delegate verbosity at the Convention as delegate *Ideology* shows the effect of moving a delegate's ideology, with all other variables at their median, from one extreme to the other. The solid line depicts the predicted value while the dashed lines show the upper and lower bound of the 95 percent confidence interval. Delegate verbosity is minimized to the left of the true median value of *Ideology*, around -0.20. The figure shows that based on the results of the model, delegates further from the median value of *Ideology* have higher predicted levels of participation at the Convention.

The results of Table 1 are presented with robust standard errors.¹⁶ These results are robust through several different iterations. First, results were identical in sign, significance, and relative size for models run using a

Table 2. Regression Results of the Poisson Model for Speech Number.

| Variable | Quadratic model | Absolute model |
|------------------------------|------------------|-------------------|
| Intercept | 1.416*** (0.165) | 1.657*** (0.146) |
| <i>Ideology</i> | 0.169*** (0.043) | |
| <i>Ideology</i> ² | 0.710*** (0.076) | |
| Absolute ideology | | 0.789*** (0.065) |
| Age | -0.002 (0.003) | -0.010*** (0.002) |
| College | 0.416*** (0.081) | 0.362*** (0.057) |
| Legislative experience | 0.055*** (0.006) | 0.058*** 0.004 |
| Days present | 1.021*** (0.002) | 0.021*** 0.002 |
| N | | 41 |
| L | -980.991 | 7,438.096 |

Presented with bootstrapped standard errors in parentheses.

OLS = ordinary least squares.

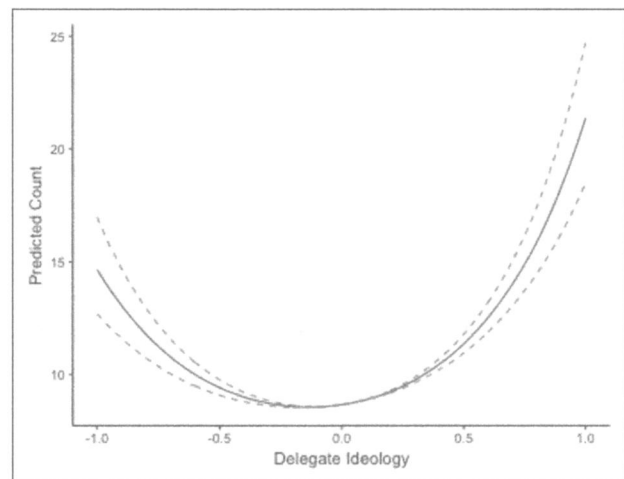
*Significant at the .1 level. Significant at the .05 level. ***Significant at the .01 level.

logged version of the dependent variable *Verbosity Length*. Likewise, results remained stable when dropping the outlying observation of James Madison. In addition, the use of several alternative control variables did not produce different results. Finally, using *Verbosity Type* (a categorical variable created using *Verbosity Length*) also produced the same substantive result. The stable and robust finding of the significantly positive effect of higher levels (i.e., more extreme values) of delegate ideology on delegate verbosity measured in total length of delegate speech gives support to the hypothesis that more ideologically extreme delegates participated more at the Constitutional Convention.

Count Analysis

As an additional assessment of the relationship between delegate ideology and delegate participation, I leverage my data on the number of speeches that each delegate is recorded as making at the Constitutional Convention according to Madison's notes. By engaging in a count analysis, I can make sure that the results which use *Verbosity Length* are not due to observations of individuals who may have spoke only a handful of times, but for an extended period. Here, the unit of analysis is still at the delegate level but the dependent variable is now the number of speeches made by a delegate during the Convention (*Speech Number*).

Table 2 presents the results of a Poisson model with bootstrapped standard errors.¹⁷ *Ideology* has the predicted significantly positive effect on delegate verbosity. The other variable hypotheses (excepting *Age*) are in the expected direction and statistically significant. The results in Table 2 are robust to several specification alternatives. This includes alternative functional forms

**Figure 2.** Predicted counts for *Ideology* + *Ideology*² from Table 2.

of the model using linear and curvilinear specifications for ideology. The predictive power of a delegate's ideology with regard to their level of verbosity is also robust to using several alternative control variables. Finally, though the control variables are no longer significant, using OLS with robust standard errors (to account for heteroskedasticity) indicates a significant positive effect of delegate ideology on higher values of *Speech Number*.

Figure 2 presents the predicted speech count (and a 95% confidence interval) for a median delegate as *Ideology* ranges from its minimum (-1) to its maximum (1). The solid line depicts the predicted value while the dashed lines show the upper and lower bound of the 95 percent confidence interval. The number of speeches given by a delegate is minimized just to the left of the true median value of *Ideology*, around -0.10. The figure shows that based on the results of the model, delegates further from the median value of *Ideology* spoke more often at the Convention.

To determine whether more ideologically extreme delegates participated at a higher rate at the Constitutional Convention, I use several dependent variables and the appropriate corresponding estimation strategies to examine original data about aggregated delegate verbosity. The linear models show that higher values of delegate ideology are positively and significantly associated with larger amounts of recorded delegate speech. A count model reiterates the same finding using the number of recorded delegate speeches rather than the recorded length of delegate speech. Having shown that ideologically extreme delegates were more likely to participate at the Constitutional Convention, the next section looks to why ideologically extreme delegates participated in debate more than ideologically moderate Convention delegates.

Analysis of Convention Speeches

To assess why ideologically extreme delegates spoke more often and for longer during the Convention, I created a new data set of all delegate speeches from Madison's notes of the Constitutional Convention. This data set contains information on how long each speech was, which delegate made the speech, and the subject of the speech, as well as additional information about the context of the speech and the delegate who made it. By incorporating information about the order in which speeches occurred and their context within the larger debate, I can test the hypothesis that ideologically extreme Convention delegates speak for longer because they participate in debate as a response to the speeches of other delegates. Here, the unit of analysis is a recorded speech given at the Constitutional Convention and the dependent variable is *Speech Length*, a measure of the length of speech at the Convention. This data set contains 2,321 speeches made by fifty-one of the fifty-five Convention delegates as recorded in Madison's notes of the Convention.¹⁸

Ideology, *Ideology*², and *Absolute Ideology*, *Days Present*, *Age*, *College*, and *Legislative Experience* are all operationalized and sourced the same as in the previous analyses.¹⁹

Previous Speaker is the distance between the ideological score of the delegate who gave a particular speech and the average of the ideological score of the previous three speech givers.²⁰ This measure allows us to ascertain what effect the distance of a delegate's policy preference point to the average policy point of the debate immediately prior to that speech has on the length of speeches at the Convention. Assessing whether or not delegate speeches were longer when previous speeches were further from delegate ideal points potentially explains why more ideologically extreme delegates accounted for a larger portion of the Convention records.

Slave is a dichotomous variable that indicates whether the delegate who gave a particular speech was a slave owner (operationalized as a "1") or not (operationalized as a "0"). The expectation is that speeches by slave-holding delegates were longer than speeches by non-slave-holding delegates, as delegates responded to criticisms of slavery that emerged throughout the course of the Convention.

Table 3 presents the results of an OLS regression using two different functional form considerations of the same model. Robust standard errors are used in both models.²¹ *Previous Speaker* is insignificant in both model specifications suggesting that speech length at the Constitutional Convention is unrelated to the distance between policy preferences of current and immediately prior speech givers. Delegate ideology, however, is strongly positive and significant in both models, meaning that, on average, all else equal, speeches given by delegates with more

Table 3. Regression Results of OLS Models for Speech Length.

| Variable | Quadratic model | Absolute model |
|-------------------------------|-------------------|------------------|
| Intercept | 1.110 (18.117) | -13.617 (19.402) |
| <i>Absolute ideology</i> | 55.792*** (7.056) | |
| <i>Ideology</i> | 3.392 (3.551) | |
| <i>Ideology</i> ² | 43.647*** (6.652) | |
| <i>Previous speaker</i> | 4.323 (3.602) | 3.405 (3.937) |
| <i>Age</i> | 1.169*** (0.314) | 1.062*** (0.299) |
| <i>College</i> | 9.292 (5.670) | 11.127** (5.482) |
| <i>Legislative experience</i> | -0.932** (0.457) | -0.610 (0.411) |
| <i>Days present</i> | -0.194 (0.169) | -0.147 (0.172) |
| <i>Slave owner</i> | 13.842*** (4.922) | 12.368** (4.970) |
| N | 2,309 | |
| R ² | 0.028 | 0.029 |
| AIC | 27,939.12 | 27,935.02 |

Robust standard errors are in parentheses. OLS = ordinary least squares; AIC = Akaike information criterion.

*Significant at the .1 level. **Significant at the .05 level. ***Significant at the .01 level.

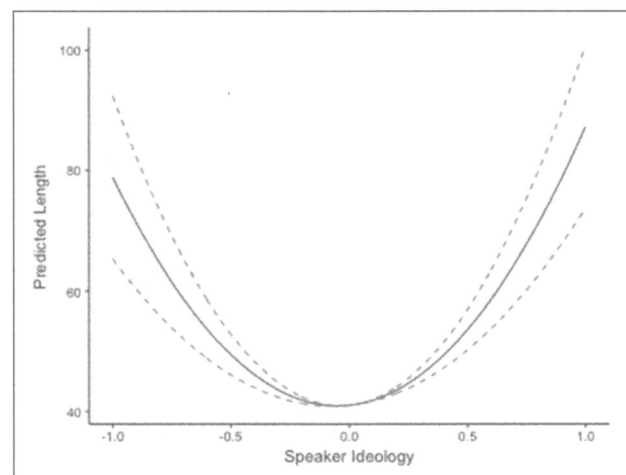


Figure 3. Predicted speech length for a median delegate.

extreme ideological scores were longer than speeches given by delegates with less extreme ideological scores.²² *Age* and *Slave Owner* are also positive and significant, though the size of the effect of *Age* is minimal.

Figure 3 presents the predicted speech length from the quadratic model from. The predicted speech values are for a speech by a median delegate as values of delegate ideology range from the minimum (-1) to the maximum (1) (shown along with a 95% confidence interval). The effect of delegate ideology on predicted speech length is considerable. A speech by a median ideology delegate (when ideology has a value of zero) is predicted to last for just about forty words. A speech by a delegate bounded at one of the ideological extremes (-1 or 1) has a predicted

length twice that. With the average recorded Convention speech lasting sixty-eight words and the median speech lasting just thirty-seven words, the size of the predicted effect of a delegate's ideology on speech length is considerable.

The results of the analysis in Table 3 are robust to several different specifications. Models that include variables to account for speech topic produced the same results. Using the log of *Speech Length* also produced the same results. Instead of averaging the ideological distance of a delegate who gave a speech and several prior speeches, models that explicitly measured the ideological distance between the delegate who gave a certain speech and the ideological values of the delegates who gave n number of previous speeches were also tried. These also produced the same results. Only when models were run on all 2,321 speeches instead of on the subset of 2,309 speeches did the results change. With the full data, *Previous Speaker* becomes significant and strongly positive. In an attempt to ascertain what was driving this result, the model was rerun using the individual speech distances mentioned above. In this model, only the distance between the ideology of the delegate giving the current speech and the delegate giving the speech immediately prior is significant. This suggests something special about these twelve longest recorded speeches at the Convention. Looking at these twelve speeches reveals that they are statistical outliers, which explains the significant finding for *Previous Speaker* in the model that runs on the full data set.

This analysis of all recorded Convention speeches has revealed two findings. First, as in the aggregated delegate level analysis, there is a strong effect of delegate ideological extremism on the level of participation. Second, there is no evidence that these ideologically extreme delegates engaged in more debate because they were responding to and defending their own policy preferences from opposing delegates. This result offers no support for the theory that ideologically extreme delegates participated in an effort to counteract other delegates.

Assessing Potential Bias in Madison's Notes

Despite the robustness checks performed to determine the reliability of the various empirical analyses above, a remaining concern relevant to all of the results presented in this work is the accuracy of the source material for the dependent variables, Madison's notes on the Convention. As mentioned above, the documentary evidence upon which studies of the Constitutional Convention rely is potentially problematic, particularly since Madison's notes are not without their issues. Madison revised them several times between the time of the Convention and his

death in 1836 (Bilder 2015; Farrand 1966), and they are only notes, not a complete transcript of the Convention. In addition, Madison's notes are only a single viewpoint and despite Madison's status as the "Father of the Constitution," Madison was a political outlier at the Convention.

If Madison's notes are systematically biased in favor of delegates who shared his own policy preferences or vice versa, this would result in biased data that would yield biased and unreliable results. To determine what, if any, bias is present in Madison's notes, I leverage the notes of Robert Yates (NY). Ideologically, Madison and Yates are opposites. Using W-NOMINATE ideal point estimation, Madison has a score of 1 (the rightward bound of the scale) while Yates has a score of -1 (the leftward bound of the scale). This is an advantage as inherently Madison and Yates are likely to disagree about a given speaker.

According to Farrand, Yates's notes are "next in importance" to Madison's (Farrand 1966, Vol. I, xv). Unfortunately, Yates was only in attendance at the Convention between its start on May 25, 1787 and July 5, 1787. Regardless, for every day that there were multiple speaking delegates, delegate verbosity in Yates's notes was coded in the same way as in Madison's notes. It was then determined what proportion of text was devoted to each delegate in both Madison's and Yates's notes. To determine whether delegates were subject to bias in either set of notes, t tests were done to determine whether the proportions of text are statistically different from one another.

Table 4 presents a summary of the results of the t tests to determine bias in the notes of Madison and Yates. In all, thirty-six delegates had speeches from the same day recorded by both Madison and Yates. Of these, thirty-two are testable. Of those thirty-two delegates, only three exhibit statistically significant bias: Benjamin Franklin (PA), Richard Dobbs Spaight (NC), and James Wilson (PA). Madison significantly over-reports Franklin's participation relative to Yates. Franklin's W-NOMINATE score is -0.524 making him closer to Yates's ideological position than Madison's. A possible explanation of the bias for Franklin in Madison's notes is that most of Franklin's contributions to the proceedings of the Convention came in the form of prepared written speeches. Madison then received copies of these speeches (Farrand 1966, Vol. I, xvi), which Yates did not. This might explain the discrepancy in the proportion of text related to Franklin between Madison's and Yates's notes.

Madison also over-reports Spaight's contribution to the Convention relative to Yates. Spaight's W-NOMINATE score is -0.165, making him an ideologically moderate delegate. He also only spoke a handful of times. The reason for the significance in proportion of text reported for

Table 4. Comparing Proportions of Delegate Text in the Notes of Madison and Yates.

| Delegate | n | Madison Mean | Yates Mean | Pr > t |
|---------------|----|--------------|------------|---------|
| Baldwin | 1 | 0.038 | 0.029 | NA |
| Bedford | 5 | 0.091 | 0.100 | .868 |
| Brearley | 1 | 0.022 | 0.007 | NA |
| Broom | 1 | 0.006 | 0.000 | NA |
| Butler | 15 | 0.028 | 0.046 | .340 |
| Davie | 2 | 0.037 | 0.025 | .800 |
| Dayton | 3 | 0.016 | 0.010 | .430 |
| Dickinson | 10 | 0.055 | 0.064 | .817 |
| Ellsworth | 11 | 0.051 | 0.076 | .424 |
| Franklin | 8 | 0.205 | 0.062 | .082* |
| Gerry | 15 | 0.079 | 0.072 | .744 |
| Gorham | 18 | 0.022 | 0.017 | .658 |
| Hamilton | 13 | 0.063 | 0.076 | .718 |
| Jenifer | 2 | 0.023 | 0.027 | .577 |
| Johnson | 3 | 0.060 | 0.068 | .875 |
| King | 12 | 0.055 | 0.052 | .890 |
| Lansing | 5 | 0.080 | 0.050 | .612 |
| Madison | 21 | 0.260 | 0.208 | .396 |
| A. Martin | 2 | 0.016 | 0.033 | .690 |
| L. Martin | 8 | 0.033 | 0.110 | .333 |
| Mason | 14 | 0.086 | 0.083 | .923 |
| G. Morris | 3 | 0.332 | 0.318 | .951 |
| R. Morris | 2 | 0.006 | 0.000 | .171 |
| Paterson | 4 | 0.075 | 0.086 | .920 |
| Pierce | 3 | 0.020 | 0.063 | .393 |
| C. Pinckney | 14 | 0.097 | 0.092 | .924 |
| C.C. Pinckney | 9 | 0.042 | 0.039 | .909 |
| Randolph | 14 | 0.114 | 0.195 | .356 |
| Read | 8 | 0.041 | 0.029 | .424 |
| Rutledge | 12 | 0.028 | 0.016 | .245 |
| Sherman | 19 | 0.057 | 0.042 | .386 |
| Spaight | 3 | 0.017 | 0.000 | .091* |
| Strong | 2 | 0.017 | 0.006 | .494 |
| Washington | 1 | 0.011 | 0.000 | NA |
| Williamson | 13 | 0.026 | 0.014 | .214 |
| Wilson | 19 | 0.133 | 0.189 | .065* |

*Significant at the .1 level. **Significant at the .05 level. ***Significant at the .01 level.

Spaight between Madison and Yates comes down to the fact that Yates does not record Spaight as having spoken during debate at all. As Spaight only spoke a few times and never at great length, it is possible that Yates simply overlooked his contributions.

Finally, Yates over-reports Wilson's contribution to the Convention proceedings relative to Madison. This is surprising given that Wilson has the third most recorded text of all delegates from Madison's notes. Wilson, like Madison, has a W-NOMINATE score of 1. There is no immediate explanation of why Yates allocates a greater proportion of text to Wilson than Madison does.

Regardless of the finding that Madison seems to bias his notes against Wilson, this does not affect any of the findings in this article. If anything, this suggests that the data are biased against the presented results. Still, only three of the thirty-two tested delegates presented evidence of bias (less than 10%), suggesting that bias is not a problem in using Madison's notes as a data source.

Discussion

This article examines the relationship between ideology and participation in the floor debates of the Constitutional Convention. I show that Convention delegates with more extreme ideological scores participated more often and at greater length than moderate delegates. These results hold true under a battery of robustness checks, including controlling for issue topic, temporal effects, and different measures of participation.

The initial findings raise an interesting and noteworthy result regarding the use of the debates of the Constitutional Convention as a basis for original intent by both politicians and the U.S. Courts.²³ The finding that ideologically extreme delegates to the Constitutional Convention participated in floor debate at significantly higher rates than moderate delegates, in terms of both the frequency and volume of floor speeches, undermines the veracity of claims made on the basis of original intent that use the proceedings of the Convention as their evidence. If legal scholars and jurists do wish to make use of original intent, the results of this article show that to avoid potentially misleading claims, they need to consider the full decision-making process of the Convention.²⁴

The most famous and oft-quoted explanation of American constitutionalism, *The Federalist Papers*, was primarily written by two of the most extreme delegates at the Constitutional Convention, Alexander Hamilton and James Madison. It is well known that *The Federalist Papers* were written to persuade citizens in New York and the rest of the states of the merits of the Constitution. However, it is less widely known how extreme Madison and Hamilton were relative to other Convention delegates. As the opinions of moderate delegates were overshadowed by contributions from ideologically extreme delegates, some political and philosophical explanations of the Constitution may be unrepresentative of the reasoning actually used to craft the structure of American government. While the collected papers of individuals such as Hamilton and Madison are easily obtained, those of less verbose and more centrist delegates such as Abraham Baldwin, Daniel of St. Thomas Jenifer, and William Richardson Davie are much more difficult to come by and infrequently cited.

An illustrative example of the danger of relying on the Convention debates for determining original intent can be

found in the concurring opinion of Justice Thomas, a noted originalist (Greene 2011), in *Perez v. Mortgage Bankers Association*, 135 S. Ct. 1199 (2015). In discussing the appropriateness of Court deference to executive agencies,²⁵ Thomas, invoking the thinking of the “the Framers,” cites Madison’s discussion of checks and balances in Farrand (1966, Vol. II, 77). However, he does so without context (Madison was arguing for the creation of a council of revision) and without referencing the relevant viewpoints of the delegates prior to and following Madison’s cited portion of debates. He also does not note that Madison’s viewpoint on this matter had previously been debated and voted down, was again defeated in this instance, and would be defeated again later in the Convention. This debate was lengthy, taking up more than half of the day on July 21, 1787. Nine other delegates contributed to this recorded debate, including Wilson, Gorham, Ellsworth, Mason, Gerry, Strong, G. Morris, L. Martin, and Rutledge. In addition, not a single delegate from this debate at the Convention is arguing against the concept of checks and balances. Rather, the delegates are arguing over the correct form of checks and balances. Justice Thomas could just as easily cite Strong’s statement that “the power of making ought to be kept distinct from that of expounding the laws” (Farrand 1966, Vol. II, 75). This is a clear and concise endorsement of the concept of separation of powers, one that would seem to serve Thomas’s purpose in his concurrence, namely, criticizing the expanded legislative prerogative of the executive branch.²⁶

Thomas’s use of the Convention debates in *Perez* exemplifies the problem of relying on the Convention records for determining the intent of the Convention delegates. Although Thomas does not cite the nine other delegates who engaged with Madison in debate over the council of revision, only Rutledge, Strong, and Ellsworth could be described as moderate delegates (and Ellsworth’s inclusion in that list is suspect given Ellsworth would refuse to sign the drafted Constitution at the conclusion of the Convention). What this means is that, even if Thomas had cited the debates more broadly, he would still be largely confined to choosing from voices at the ideological periphery of the Convention.

Thus, there exists a bias against centrist delegates in both those who draw on the proceedings of the Convention and those who look to post-Convention writings by Convention delegates. The results here suggest that those who call for “originalism” in the reading of the Constitution may have less firm ground to stand on than they believe. As only a portion of original intent is actually known from the records of the Convention, those who invoke original intent are actually drawing on a historical record that is biased in favor of ideologues.

As I have shown in this article, Convention proceedings were often dominated by a small but vocal contingent. These more visible delegates were often on opposite sides

of the debate, resulting in a less vocal center. Heckelman and Dougherty (2013) have identified the median voter for several different periods of the Convention. In all three periods of their analysis, the pivotal position is slightly to the right of zero (i.e., positively valued) on the W-NOMINATE scale upon which delegates are placed making the ideological median of the Convention slightly more pro-national government (Heckelman and Dougherty 2013). The pivot moves more toward the pro-national side as the Convention goes on and certain anti-national government delegates (e.g., Yates and Lansing) leave the Convention. But are these median delegates less likely to participate? During the early part of the Convention, the pivotal delegates are nearly silent, while the delegates who are pivotal during the latter stages of the Convention have just above average participation rates.

Although this analysis does not say anything about ideologically extreme delegates’ success or failure in terms of their policy goals relative to more ideologically moderate delegates, it does provide evidence that more centrist legislators participated in floor debate at lower observed levels than more ideologically extreme delegates. An implication of this finding is that, assuming unidimensional preferences, delegates who did not engage in a great deal of debate may have been more likely to see their preferred motions adopted. Future research on the Constitutional Convention should investigate a possible relationship between legislative success at the Convention and delegate verbosity. By linking participation to outcomes, the impact of the participation bias at the Convention can be better understood. This also has implications for understanding participation in deliberative bodies in general. Extensions of this work should incorporate the non-static nature of the convention and consider how delegate behavior changed over the course of the Convention as well as by issue area. It is conceivable that while ideologically extreme delegates were more likely to speak up more often and at greater length than their moderate peers in general, perhaps this is a phenomenon that only holds under certain circumstances. Future research on the topic of delegate verbosity at the Constitutional Convention might also seek to better understand what particular factors influenced the length of individual speeches.

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Notes

1. For more on the historical record of the Constitutional Convention and the source material of Farrand's *Records of the Federal Convention of 1787*, see Farrand's "Introduction" to that work and an article by the editor of the *Supplement to Max Farrand's Records of the Federal Convention*, Huston's (1986) "Creation of the Constitution: The Integrity of the Documentary Record."
2. The official Journal was kept by Convention Secretary William Jackson who was not himself a delegate to the Convention.
3. Madison's notes, which provide a more detailed account of Convention activities, were only published after the death of the last Convention delegate in 1836.
4. For possible solutions to this problem, see Maggs (2007).
5. Another potential explanation can be found in the political psychology literature. Recent research suggests that every individual's personality is composed of five traits (Mondak et al. 2010). Of these five traits, the same trait, extraversion, is associated with both strong levels of partisan attachment and higher levels of political attachment (Gerber et al. 2011). Personality trait political psychology might explain the link between ideological extremism and increased participation at the Constitutional Convention but it is unclear how to assess this empirically.
6. Delegate ideology is measured using a single dimension estimation of W-NOMINATE published by Heckelman and Dougherty (2013). As noted by Heckelman and Dougherty (2013), the number of dimensions is dictated by the researcher. However, a single dimension correctly classifies 81 percent of all delegate roll calls (Heckelman and Dougherty 2013, 416). The first dimension of W-NOMINATE correctly classifies 83 percent of House votes and 80 percent of Senate votes from 1789 to 1985. Adding a second dimension to the Convention W-NOMINATE estimates only improves vote classification by another 4 percentage points (Heckelman and Dougherty 2013, 416). Thus, not only is the explanatory power of the single dimension of W-NOMINATE for the Convention comparable with W-NOMINATE for the House and Senate, but a second dimension offers little additional explanatory power. As to the dominant dimension uncovered by NOMINATE, I describe it as "based on preferences over the scope of the proposed national government" because Heckelman and Dougherty (2013) describe the dimension as one of nationalism and localism. Localism-nationalism is just one potential dimension. Pope and Treier (2012) also suggest apportionment and separation of powers. Heckelman and Dougherty (2013) make the claim that the uncovered dimension is one of localism and nationalism because of how known localists and nationalists map onto the revealed ideological scale (Heckelman and Dougherty 2013, 416). Heckelman and Dougherty (2013) use three different sources to corroborate the placement of known localists and nationalists and have perfect agreement regarding the placement of delegates. Furthermore, these identified delegates appear at the extreme ends of the revealed scale, suggesting that the localism-nationalism dimension is the correct one. Importantly, for the purposes of this article, it does not actually matter if the dimension is one of localism versus nationalism but rather the fact that the revealed preference scaling is the single most dominant dimension at the convention and that it provides tremendous explanatory power in correctly classifying delegate votes. The interest of the article is to examine how delegate ideology impacted participation. Whatever the substance of the dominant dimension, it is an accurate approximation of delegates' relative distance from one another in the issue space as revealed by their votes. For more on the robustness of W-NOMINATE at the Convention, see the "W-NOMINATE at the Convention" section of this article's supplemental material.
7. See Figure 4 in the supplemental material for a visual representation of the distribution of *Speech Number*.
8. Vertical text space was chosen over the counting of lines as a way in which to make the coding process more efficient.
9. See Figure 5 in the supplemental material for a visual representation of the density of *Verbosity Length*.
10. Information about the coding procedure used to create this original data set is available upon request.
11. While this kind of transformation on NOMINATE is typically unadvised, because the median delegate's ideology is 0.002, taking the distance between every delegate and the median delegate is substantively equivalent to taking the absolute value of delegate ideology.
12. Table 5 can be found in the supplemental material and presents descriptive statistics of the variables.
13. See Figure 5 in the supplemental material for a visual representation of the density of *Verbosity Length*.
14. See Figure 7 in the supplemental material for a visual examination of these alternate forms.
15. One model does not significantly outperform the other according to both Cox and Davidson-MacKinnon J tests.
16. Breusch-Pagan tests for heteroskedasticity proved significant at the 0.05 level for both models giving evidence against the null hypothesis of homoskedasticity. Further diagnostic tests indicate that autocorrelation is not an issue.
17. First, standard errors were bootstrapped to avoid unsupported distribution assumptions. Specifically, a non-parametric bootstrap was used to calculate standard errors of the coefficients. The bootstrapping process proceeds by first assuming the distribution of the sample approximates the population distribution as required for a non-parametric bootstrap. Next, the data are sampled with replacement. The sampled data set is then used to estimate the Poisson regression and store the coefficients. The previous step is then repeated 500 times. Finally, the standard errors are calculated from the distribution of bootstrapped coefficients. Second, because of the apparent extended dispersion of *Speech Number* (as evidenced in Figure 4

- in the supplemental material), a negative binomial model was also considered. That model was not used because in multiple model specifications, the α contagion/dispersion parameter was never statistically different than 1, strongly suggesting that the data are Poisson distributed.
18. Twelve observations are dropped because of their status as outliers. More on the impact of these outliers on the analysis is discussed later in this section. Table 7 in the supplemental material contains descriptive statistics of the data and variables used in this section from the new data set of Convention speeches.
 19. As some of the fifty-one delegates in this data set did not have enough individual roll calls to calculate W-NOMINATE scores, I use a comparable ideological value for these delegates. These values are directly comparable with the W-NOMINATE scores of the other Convention delegates though they are derived using a censored heteroskedastic Tobit model (Heckelman and Dougherty 2013).
 20. Alternative variable specifications were run incorporating both longer and shorter windows with no discernible effect.
 21. Breusch-Pagan tests for heteroskedasticity proved significant at the 0.05 level for both models, giving evidence against the null hypothesis of homoskedasticity. Further diagnostic tests indicate that residuals may not be normally distributed and that autocorrelation may be an issue. To address this, the models were re-estimated using feasible generalized least squares which produced results stronger than those reported in Table 3.
 22. To address concerns about the dimensions of debate at the Convention driving participation, models including issue area fixed effects were also estimated. These models produced substantively identical results to those reported in Table 3. Ideally, the analysis would be conducted using only speeches from different issue areas with issue area specific delegate NOMINATE scores. However, the roll call matrix is too sparse to do so. Therefore, the analysis is conducted on the entirety of the Convention rather than on topic subsets.
 23. For more on the use of the Constitutional Convention by modern courts, see Farrand (1966, 1987); Corley et al. (2005); Post and Siegel (2006); Strang (2010); and Greene (2011).
 24. This problem is related to, but different from, issues in preference aggregation using majority voting (e.g., Arrow 1951) or using legislative intent for the purposes of interpretation is likewise problematic (Shepsle 1992).
 25. This issue has previously arisen in *Bowles v. Seminole Rock & Sand Company*, 325 US 410, S. Ct. 1215. (1945) and *Auer v. Robbins*, 519 U.S. 452, 117 S. Ct. 905 (1997) and was recently raised, again by Thomas, in a dissent against a denial of certiorari of *United Student Aid Funds, Inc. v. Bible*, 136 S. Ct. 1607 (2016).
 26. Later in the same concurring opinion, Thomas cites a snippet of the Convention debates, misidentifying Rufus King as a delegate from Maryland (he was from Massachusetts), and ignoring the counterpoint made by Wilson in the very next Convention speech. In the same paragraph, Thomas cites Federalist 78 written by Alexander Hamilton.
- ### Supplemental Material
- Data and replication materials are available at <https://github.com/DavidAGelman/Ideology-and-Participation>. Supplemental materials for this article are available with the manuscript on the *Political Research Quarterly (PRQ)* website.
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