

# Legislative Networks and Partisan Entrenchment

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For Presentation at Midwest Political Science Association  
April 4-9, 2018  
Chicago, IL  
\*\*Working paper\*\*

## Abstract

This project explores the conditions under which legislators cooperate with one another across party lines. Previous research shows that under some conditions, connectivity between dissimilar others may increase the likelihood of cooperation, while under other conditions increased connectivity may lead to less cooperation (referred to here as partisan entrenchment). This project draws on these existing literatures to explore whether legislators are more likely, or less likely to cooperate on legislative goals as they are increasingly exposed to opposite partisans. Moreover, the theory suggests that connectivity may explain cooperation differently in different policy domains. Policy domains that are strongly partisan or national in scope are hypothesized to show a negative relationship between connectivity and cooperation, whereas those that are more technical or localized are hypothesized to have a positive relationship between connectivity and cooperation. Using a large data set from the US Congress, 1993-2016, the hypotheses are tested on legislative voting behavior. Cooperation is operationalized as opposite party legislators who cast identical roll calls votes. Legislator connectivity is operationalized with legislative caucus organizations, which represent a voluntary form of connectivity. Results show that connectivity generally predicts partisan entrenchment, except in a few policy domains.

## Introduction

In 2016, two members of Congress from Florida, Carlos Curbelo (R, FL-26) and Ted Deutch (D, FL-22), formed a bipartisan caucus focused on policy related to climate change. The Climate Solutions Caucus has an unusual feature: members can only join in bipartisan pairs (Rodriguez 2017). The caucus leaders call it a Noah’s Ark rule—members join two-by-two. It’s not unusual for caucuses to be bipartisan—most are. However, it is unusual for caucuses to restrict their membership in this way.

As the US Congress has become increasingly polarized, bipartisan cooperation is increasingly scarce. Scholars have demonstrated this polarization in a number of compelling ways; however, here I conceptualize cooperation and polarization as the tendency of legislators to vote together. When a pair of legislators cast the same vote (both “aye,” or both “nay”), it is evidence of unity or cooperation. The rate of co-voting does not vary much in the aggregate, because so many votes are non-controversial and party driven. As seen in Figure 1, the variance in co-voting has increased in the period from 1993 to 2016 (or the 103<sup>rd</sup> to 114<sup>th</sup> congresses), but the mean does not jump around too much.

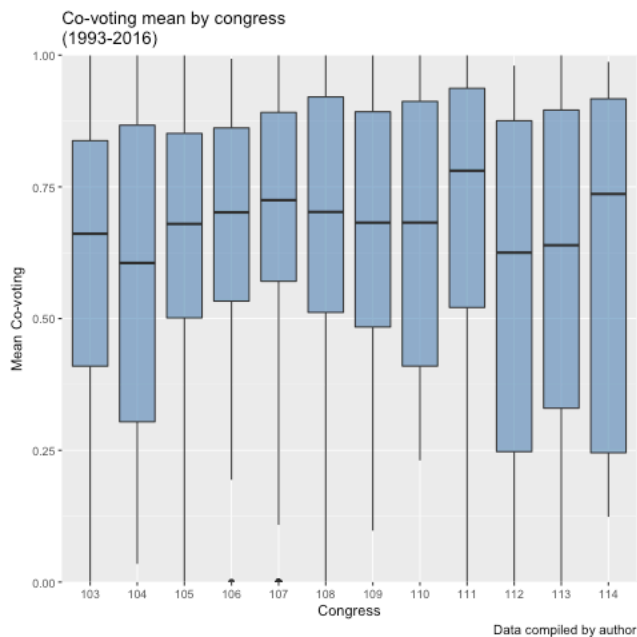


Figure 1 Co-voting mean, by congress (103rd - 114th)

However, partisanship drives the legislative process. When we break co-voting into same-party and opposite-party pairs, we see differing trends in the means. Figure 2 breaks up co-voting by party-likeness, using the box-plot to show the variation across time. There is considerably more variation in

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the opposite-party pairs, than in the same-party pairs. Moreover, it appears the trend among opposite-party pairs is declining, whereas same-party pairs do not show as much variation.

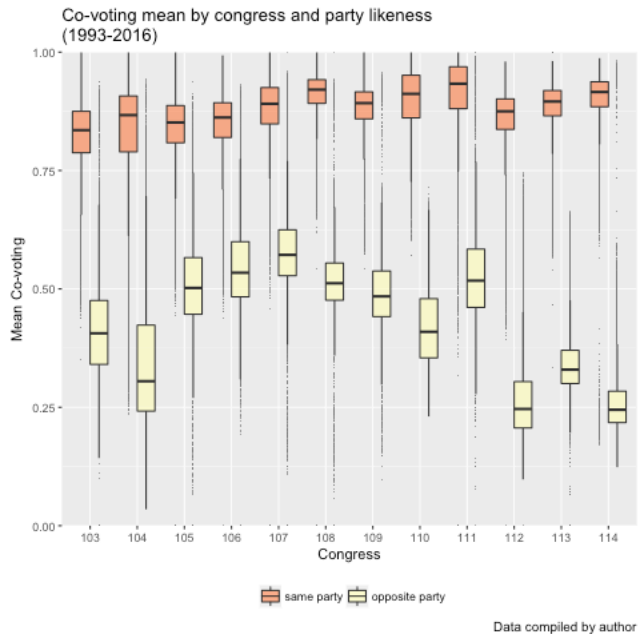


Figure 2 Co-voting mean by party likeness (box plot), 1993-2016

Figure 3 shows the same data as Figure 2, but without the messiness of the box-plots. In Figure 3 we do not see the variation from congress to congress, but the trend is clearer. The tendency of opposite-party pairs to vote together is declining, starting with the 110<sup>th</sup> congress (2007-2009) at the tail end of the George W. Bush administration.<sup>1</sup> The downward trend in opposite-party co-voting suggests that members of Congress are cooperating less often across party lines, than they were just 10 years ago. The goal of this paper is to explain this variation and the downward trend in opposite-party cooperation.

<sup>1</sup> Majority party status changed at the beginning of the 110<sup>th</sup>, as Democrats won a majority of House seats in the 2006 election and replaced Republicans as the majority party in the chamber.

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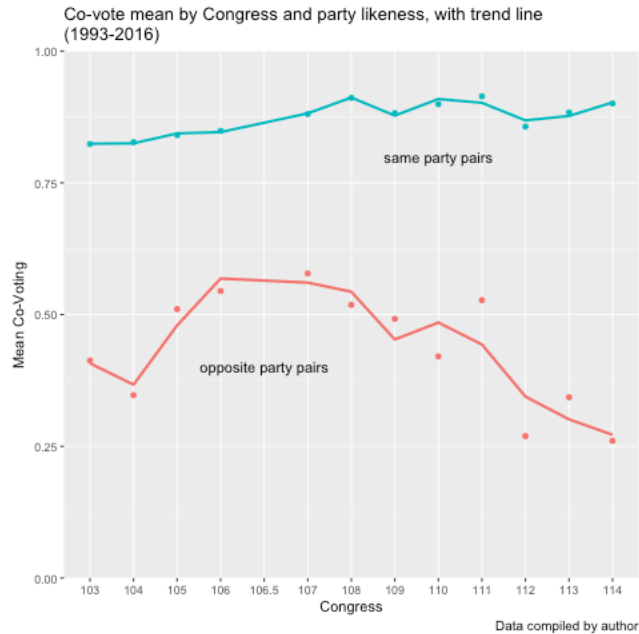


Figure 3 Co-voting means by party likeness, 1993-2016

This paper explores the conditions for bipartisan cooperation exploring two schools of thought. Do legislators respond like “everybody else,” such that when faced with countervailing information or increased connectivity to dissimilar others, they become more entrenched in their positions? Or do legislators’ incentives to deliver policy to constituents render them less vulnerable to such effects, suggesting that greater connectivity will lead to greater cooperation among them?

On one hand, partisanship is known to be such a dominant predictor of legislative behavior, we might expect that connectivity to dissimilar others would have no effect on legislative behavior. There are good reasons to be skeptical that connectivity through legislative caucuses might have null effects on behavior. Caucuses are often loose knit organizations that may never meet as a group. Many caucuses are nothing more than a well-groomed listserv that disseminates information of interest to its members. Participation in caucuses is both voluntary and unlimited, and to the extent caucuses are governed by the US House of Representatives they are restricted in ways that limit their ability to compete with formal institutions (like parties and committees). These characteristics of caucuses are often why they are dismissed as trivial, or a non-consequential part of the legislative process.

However, as argued by Ringe and Victor (2013), these flexible features of caucuses are an asset from a social networks point of view. The lack of limitations on caucus membership and capacity mean that

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legislators join caucuses for a variety of reasons, forming a relatively organic network of co-memberships that express everything from common policy interests, to shared hobbies. While party and committee membership are highly restricted, caucuses present an opportunity for legislators to connect to dissimilar others, even if the connection does not always result in a physical interaction.

If we think about co-membership in caucuses as a voluntary connection between legislators, we can use this network of connections to understand how connectivity affects likelihood of cooperation. In the case of the Climate Solutions Caucus, the leaders operate under the assumption that by forcing a bipartisan effort for joining, and maintaining perfect partisan equity, they enhance their chance of building bipartisan coalitions for legislative action. But will it work? And if so, why? Maybe legislators self-select into this unusual caucus because they are willing to cooperate on climate change issues, and their participation in the caucus has nothing to do with this willingness—the caucus is just the observable indication of this willingness? Or maybe participating in a bipartisan group helps members in a strictly polarized environment find ways to counteract the partisan polarization?

Beyond anecdotes about specific caucuses, there are other reasons to question the effects of bipartisan interaction. The extant literature in sociology, psychology, and political science provide on individual decision making in group settings lead to contradictory expectations when applied to political elites. Sociological theory suggests that interaction with similar others will contribute to shared behaviors. The effects of homophily are well established and can be observed in a variety of behaviors and group types. By this logic, legislators who self-select to interact through caucuses related to topics about which they care, should be more likely to exhibit cooperative behavior when it comes to policy in this area.

On the other hand, the role of cognitive heuristic in individual decision making is well established in political psychology. When individuals are presented with information that contradicts their prior beliefs, they often do not update those beliefs, but recommit to beliefs, even when errant. This type of motivated reasoning has been shown to be common in public opinion through observational and experimental studies (Nyhan and Reifler 2014). In Congress's hyper-partisan environment, we might expect that legislators will not update their beliefs about a policy area, especially when it has been presented from an opposite-partisan. Due to extreme partisan polarization, the conditions for persuasion in legislative policy making may be entirely filtered through parties, meaning that if information has come from the opposing party, it is discounted or dismissed, regardless of veracity.

I therefore seek to test which mechanism is at work in congressional caucuses. I demonstrate that caucus participation is proliferating, as is the number of caucuses. Second, I show that most caucuses are truly bipartisan, across a variety of policy areas. Third, I outline the theoretical expectations related to bipartisan caucus participation and then test whether legislators are more or less cooperative with opposite-partisans as a result of their “exposure” to bipartisan participation in caucuses.

My empirical approach has two key features. First, I partition the analysis by policy area. Dividing caucuses and behaviors into policy categories allows for a more conservative test of the effects of caucus participation on behavior and helps to control for some spuriousness in examining correlations in the data. Second, I leverage the long time-series to aid with inference. I do this by examining the way legislators’ behavior changes when they first join a caucus in a particular policy area. In this way, joining a caucus together (as the two-by-two requirement of the Solutions Caucus suggests) allows me to examine change in legislators’ voting patterns when they both newly join a caucus. While controlling for party and committee effects, we can observe whether joining a caucus has a measurable effect on the cooperative voting behavior.

The preliminary findings below show that in general, connectivity through legislative caucuses is associated with greater partisan entrenchment, rather than cooperation or null effects. A few policy areas show null effects (e.g. agriculture, foreign trade, and transportation), and a few show evidence of instigating cooperation (e.g., macroeconomics, energy, and public lands and water management), but the remainder (14 other policy areas) suggest that increased caucus connectivity contributes to partisan entrenchment.

## Caucuses participation in a polarized Congress

Partisan polarization has become a defining political phenomenon in the United States. Stringent party identification is now found at the elite and mass levels and has consequences for policy making, elections, and the ability of government to solve problems (Achen and Bartels 2016). As observers continue to lament the unorthodox (Sinclair 2011) and sometimes dysfunctional operations of the US Congress (Mann and Ornstein 2006), Congress continues to reset rules and break norms (McCarty 2014).

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The increasing polarization of parties in Congress is well documented (Thurber and Yoshinaka 2016), and the consequences of this dysfunction have been apparent for policy making.

The relationship between polarization and dysfunction is not straightforward. The legislative process is not intended to be efficient or to swiftly produce policy change. Some might argue that Congress is naturally and purposefully hampered; however, recent congresses have also been characterized by significant breaks with congressional norms. For example, the Senate's refusal to consider the appointment of Supreme Court nominee Merrick Garland was unprecedented, with no constitutional backing (DeBonis 2016). Events such as these are examples of the ways in which partisanship among legislators dominates the landscape on Capitol Hill. While strong partisanship is not unusual in Congress, the current strain of partisanship prevents legislators from negotiating to compromise on many agenda items. The gridlock and dysfunction that has prevailed is therefore traced to this strong partisanship.

As party tribalism rules the day, and individual attitudes are governed by negative partisanship, politics overwhelms policy making in Congress. However, in the absence of one party having a super-majority of seats in both chambers, Congress cannot properly function in such an environment.<sup>2</sup> Lawmakers seek alternative pathways and unconventional procedures to make progress even on mandatory legislation such as federal appropriations and raising the debt ceiling.

The dominant organizing institutions in Congress, parties and committees, to some extent counteract one another when it comes to pushing legislation forward. The primary focus of committees is policy making, while parties' main job is to win seats, whether through policy promotion (i.e., positive agenda control), obstruction (i.e., negative agenda control) or a focus on topics unrelated to policy. Where strong partisanship overwhelms policy goals, and therefore incentives to compromise, congressional parties and committees are inadequate to overcome the dominant forces of strong partisanship.

Under these circumstances, informal institutions that work in conjunction with parties and committees, play a more important role. I would not expect all information institutions to have the same effect; some norms, for example, may have unequal effects on policy making. Moreover, the extent to which

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<sup>2</sup> Even if one party did have a super-majority, it is not clear that such a condition would lead to improved institutional function. Parties with large coalitions are difficult to manage and are subject to intense intra-party factions that can hamper coordination.

these institutions exacerbate or alleviate partisan polarization is not clear. This paper explores the relationship between congresses dominant institutions (i.e., parties and committee) and includes legislative caucuses as another feature—one that could exacerbate or alleviate polarization. Where formal institutions, like parties, create greater discord, informal institutions are more likely to generate connections between actors (Feiock and Scholz 2010)

House caucuses, in particular, are a useful unit to study because they provide the potential for members of Congress to interact with one another, particularly cross-partisans, in low-intensity environments. Caucuses, or congressional member organizations, are relatively unregulated voluntary organizations on Capitol Hill. Members of Congress can join as many or as few of these groups as they like, and the groups themselves vary considerably in their level of formality, organization, and regular function (Ringe and Victor 2013; Victor and Ringe 2009). Caucuses are organized on hundreds of topics ranging from industry groups (like gas or corn), to diseases (like Parkinson's and Alzheimer's), to international topics and regions, and personal interests (like boating and wine). Forming a caucus is relatively simple, but caucuses are not allocated resources from the House. They cannot have staff, stationary, office space, or other resources. Members and their staff run these organizations from their personal offices, and many have bipartisan co-chairs.

Caucuses are casual organizations and there is wide variation among them in terms of how systematic and functional they are. Some caucuses are highly organized, with regular events, newsletters, and leadership meetings; while other caucuses may only exist as a listserv, and hold infrequent meetings or events. Caucus membership tends to be fluid and records are somewhat scarce. Caucuses are supposed to register with the House Committee on Administration, and many do, but there are no consequences for operating an unregistered caucus and there are dozens (or hundreds) that fall through administrative cracks.<sup>3</sup> Their flexibility and informality means caucuses are questionably categorized as social organizations. Members may never actually attend meetings together. However, research shows that members who jointly indicate membership in the same group share some commonalities (Victor and Ringe 2009; Ringe and Victor 2013). Shared caucus membership is at least an opportunity to receive

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<sup>3</sup> The caucus membership data used in this research has been hand collected by the author by recording individual member's caucus memberships as listed in Congressional Yellow Books. Yellow Books are published quarterly, but I record data from a single directory for each Congress, introducing some measurement error. To date, there is no alternative source of caucus data more comprehensive. Complete caucus membership data can be found here: <http://bridgeinfo.org/database/> (Ringe and Victor 2017)



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similar information, have access to the same external resources, and may provide opportunities for staff interaction.

Moreover, caucuses have proliferated over the time period that polarization in Congress has dramatically increased. In this paper, I study the period 1993 – 2014 (103<sup>rd</sup> to 113<sup>th</sup> Congresses). The following graphs show the positive correlation between caucus growth and polarization over this time period.

Figure 4 shows the total number of caucuses in each congress in the time period. The distribution shows a steady rise in the number of caucuses in each Congress since the early 1990s.

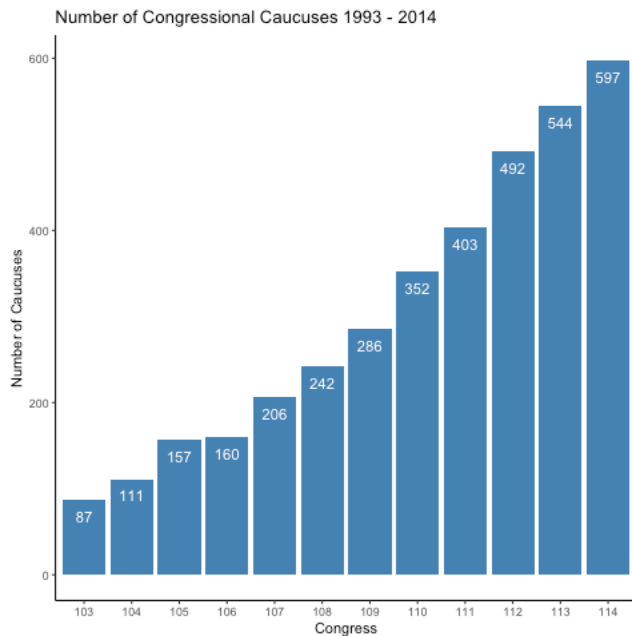


Figure 4 Number of Caucuses, 1993 - 2014

Figure 5 shows the mean total membership for caucuses in the time period. The graph shows that there has been a relatively consistent rise in the size of caucuses, in addition to there being more caucuses to join.

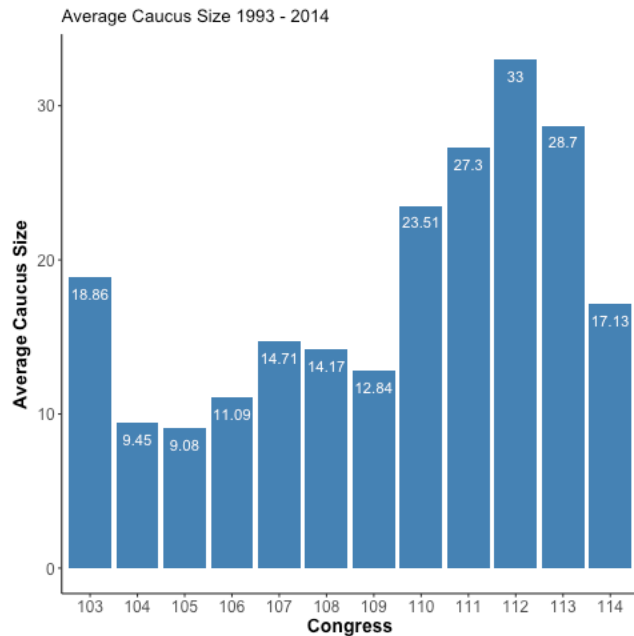


Figure 5 Average Caucus Size, 1993-2014

### Bipartisanship and cooperation in Congress

Even in the face of increased partisan polarization, members of congress have strong incentives to cooperate. We do not observe much cooperation in the roll call record, in recent years, but there are other places to look for congressional cooperation. Congress members’ incentives to cooperate are tied to their electoral incentives and their drive for reelection (Mayhew 2004). Evidence shows that members engage in significant cooperative and bipartisan behavior off the chamber floor (Harbridge 2015; Harbridge-Yong 2015). The pull of electoral incentives drives members to display their partisan loyalty on the floor while pursuing more self-interested goals, directly related to constituents, policies, or other political priorities, in non-roll-call behavior. Observations about polarization in the roll-call record are as much a function of hyper-partisanship as they are the majority party’s positive and negative agenda control. As legislators seek opportunities to meet their various goals in their complex electoral pursuit, participating in congressional caucuses is a part of this strategy.

Figure 6 shows the number of bipartisan and one-party caucuses in the US House of Representatives from the 103<sup>rd</sup> Congress (1993-1994) to the 114<sup>th</sup> Congress (2015-2016). While one-party groups have a constant presence throughout the time period, the number of groups with members from both parties has increased considerably.

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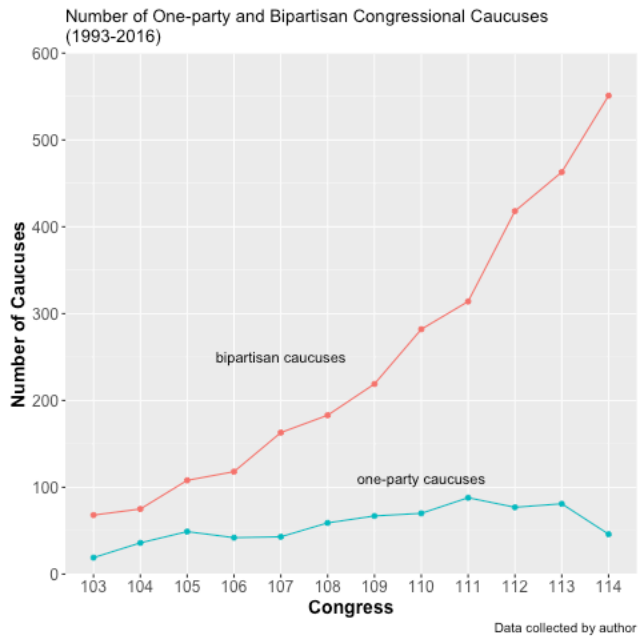


Figure 6 Bipartisan versus one-party caucuses (1993-2014)

What is unclear, however, is how these pursuits are related to one another. In other words, in a world where legislators have strong incentives to be party loyalists on the chamber floor, but to pursue a variety of issues, services, and policies otherwise—some of which may be naturally bipartisan—how does members’ activity off the floor affect the potential for bipartisan cooperation on the floor? Two theoretical perspectives guide expectations about this relationship and offer competing perspectives. The first comes from sociology, and the other from political psychology.

The sociological perspective is founded in the idea that people are embedded in social networks and the political world is inherently social or relational (Victor, Montgomery, and Lubell 2017). Classic findings in the social networks literature show that people’s weak social ties make them more likely to be exposed to novel information (Granovetter 1973). Moreover, we know that humans tend to be homophilious in their group formation, meaning we are more likely to participate in groups where others are similar to us in some way (McPherson, Smith-Lovin, and Cook 2001). Together, these features of human groups suggest that legislators may draw positive benefits from caucus participation, through weak tie development, and that we might expect participants to develop similarities of some kind over time. Exposure to diverse ideas and fresh perspectives in a low cost, low intensity environment may encourage empathy and cooperation. In the same way that racial bigotry can be curtailed through positive exposure to individuals of other ethnic backgrounds, we might likewise expect that legislators of one party, who have few positive interactions with cross-partisans outside of caucuses, to become more

sympathetic through positive caucus exposure (Oliver and Wong 2003). As legislators are more tightly connected to one another through these congressional organizations, which are not restricted by assignment or party, we might expect them to find commonalities that could reduce partisan entrenchment.

**H1: Cooperation hypothesis**-- opposite party legislators who co-participate in caucuses will be more likely to vote the same way compared to opposite party legislators who do not co-participate in caucuses.

On the other hand, a bevy of social scientific evidence and experiments suggest that we might expect cross-partisan exposure to lead to greater animosity between partisans. Individuals have a cognitive tendency to reject evidence that is inconsistent with their prior beliefs (Edwards and Smith 1996; Lord, Ross, and Lepper 1979). Political elites are not immune to the use of cognitive heuristic in decision making (Lau and Redlawsk 2001). Experiments show that those who hold strong beliefs may be vulnerable to motivated reasoning, in which evidence that contradicts their beliefs is discounted or dismissed (Redlawsk 2002).

Considerable research has been done on the conditions under which people will update their beliefs when presented with new information (Lupia and McCubbins 1998). Much of this research is focused on public opinion or citizen voters (Kuklinski et al. 2000, 1998; Slothuus and de Vreese 2010; Meffert et al. 2006). Classic and recent evidence shows that individuals tend to reject factual information when it is inconsistent with their prior beliefs (Lord, Ross, and Lepper 1979; Edwards and Smith 1996; Redlawsk 2002; Taber and Lodge 2006; Kuklinski et al. 2000, 1998). When people have entrenched beliefs and are exposed to countervailing information, they tend to retrench their beliefs rather than update them, regardless of veracity (Nyhan and Reifler 2014; Nyhan et al. 2014; Nyhan and Reifler 2010).

We know a bit less about how this phenomenon might work differently for political elites than for citizens; however, there is good reason to think that it is not entirely the same. First, legislators might strategically use exposure to cross-partisans as a way to gain advantage or leverage over political adversaries (Ringe, Victor, and Gross 2013; Mutz 2002a, 2002b; Huckfeldt, Paul Johnson, and Sprague 2004; Calvert 1985). If legislators seek out exposure to more diverse information and sources than the average citizen does, what might this mean for their tendency to update (or not) beliefs?

In a remarkable experiment on Danish politicians, research shows that political elites use confirmation bias and motivated reasoning when processing new information (Baekgaard et al. 2017). Elites' attitudes appeared particularly stubborn when confronted with new information. This research suggests that elites may be *more* susceptible to negative heuristic than voters are. Given what we know about the distressing consequences exposure to countervailing information has on citizens, the normative implications for the effects being "worse" for elites is troubling.

Moreover, evidence that individual decisions are highly subject to both confirmation and disconfirmation bias may exacerbate tribalism and faction generation in groups. For example, we know that decision makers' cognitive biases generate collective attitude polarization (Taber and Lodge 2006). If it is the case that elected elites are particularly prone to these cognitive biases, we should expect them to enhance polarization between groups.

**H2: Entrenchment hypothesis**-- opposite party legislators who co-participate in caucuses will be less likely to vote the same way compared to opposite party legislators who do not co-participate in caucuses.

Given these conflicting frames, when Republicans and Democrats are more connected via common caucuses, should we expect them to be more likely to cooperate and find commonality on issues? Or should we expect them to be less likely to see eye-to-eye on relevant topics? This is the fundamental question of the current research.

Policy specialization provides an important caveat to these possibilities. Legislators' have strong incentives to please constituents in order to secure re-election (Mayhew 2004). Electoral incentives contribute to incentives to specialize in policy areas and to develop relationships within a particular area of substantive interest, in order to be an effective negotiator of conflict with respect to a policy area. In this way, legislators have strong incentives to develop cross-partisan relationships within a policy area. The probability of achieving policy goals increases when legislators have a larger number of partners with which to work. Of course, a legislator could pursue policy solely by working with others in their party, but in some instances the chances of making progress will be greater when there is the possibility of building cross-party coalitions. In this research I posit that legislators' decision about whether to

pursue policy within their party, or cross-party lines, is dependent on the nature and context of the policy area.

Policy areas that are particularized, localized, or overly technical may be more likely to induce policy makers to develop a strong network of relationships. When policy information is sophisticated, policy makers rely on outsiders and experts to gain information (Esterling 2007). This is a natural extension of a policy maker's network. When legislators require specialized information, either because the policy information is highly technical or because the information is particularized to a region or community, the legislator has incentives to expand their network of connections. The House caucus network is a natural institution to help facilitate this need. When policy needs are highly specialized, there is less incentive to rely on a political party to make policy gains, and a greater incentive to have coalition partners that share the regional interest or technical background necessary. This expectation is outlined in Hypothesis 3. The specific policy areas relevant to this hypothesis are listed in Table 1.

**H3: Specialization network hypothesis**—Opposite party legislators who co-participate in policy areas that are highly technical or those with strong localized constituencies will be more likely to vote the same way compared to opposite party legislators who do not co-participate in technical or regional policy areas.

On the other hand, policy areas that are prone to partisan cleavage, those that appear commonly on the national agenda, or have broad salience may be less likely to induce policymakers to develop relationships in order to make policy progress. In these strongly partisan policy areas, legislators may be more likely to follow the lead of party leaders, and be more susceptible to negative heuristic. When legislators are motivated by partisanship, they are less likely to be persuaded by new information. Rather, they are more likely to become more entrenched in their beliefs in the face of countervailing information. As legislators are connected through caucuses in these policy areas, their connectivity will decrease the likelihood that they will cooperate with cross partisans. My expectation about these policy areas are stated in Hypothesis 4, and the policy areas are listed in Table 1.

**H4: National partisans hypothesis**—Opposite party legislators who co-participate in policy areas that are strongly partisan or those that tend to be national in scope will be less likely to vote the same way compared to opposite party legislators who do not co-participate in technical or regional policy areas.

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Table 1 Policy areas, by expected relationship to opposite party cooperation

Technical or regional policy areas (expected +)	National or partisan policy areas (expected -)
Agriculture	Macroeconomics
Energy	Civil Rights, Civil Liberties, Minority issues
Transportation	Health
Community Development and Housing	Labor & Employment
Space, Science, Technology	Education
Foreign Trade	Environment
Public Lands and Water Management	Immigration
	Law, Crime and Family issues
	Social Welfare
	Banking, Finance, Domestic Commerce
	Defense
	International Affairs
	Government Operations

In summary, there are two theoretical bases for understanding the relationship between congressional social connection and legislators' likelihood of cooperating with cross partisans. If connectivity breeds sympathy, I expect cross partisans to be more likely to vote together (cooperate) as they are more connected in caucuses (H1). If connectivity breeds contempt because exposure to cross-partisans evokes a stalwart stance, then legislator connectivity in the caucus network will lead cross partisans to vote together (cooperate) less often (H2). These hypotheses are competing. But I also put forth the suggestion that not all policy areas are equal and that legislators' incentives may differ based on the context of policy issues. When policy is highly technical or localized, legislators have incentives to build cross-part coalitions and cooperate with one another (H3). When policy is broad, national in scope, or tends to be partisan in nature, legislators have incentives to strengthen their party coalitions and not cooperate with cross partisans (H4). In the next section I outline my methods for testing these expectations.

## Data

The data for this project are on multiple levels: legislator, dyad, and congress.

At the level of the legislator, the most granular unit, I have all roll call votes from 1993-2016. Each House in this time period took 1000 – 1800 roll call votes. This record includes all roll calls, and is later portioned by the policy area for each vote. From these raw data I construct one-mode adjacency

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matrices ( $N \times N$ , where  $N$  is a member of Congress) that describe legislators' co-voting. Co-voting is any dyad  $(i, j)$  voting the same way (yea or nay) on a bill, where both voted. Since I am interested in bipartisanship, much of my analysis is restricted to looking at co-voting for opposite-party dyads. In this way, we can study bipartisanship from a relational perspective by looking at the rate with which Republicans and Democrats agree, under a variety of conditions. Co-voting is a conservative test of these principles, because most House roll call votes are strongly explained by party identification. Any added explanatory value beyond party, is meaningful.

The co-voting matrices, for each congress, are further partitioned by policy area. I use the major topic codes in the Policy Agendas Project, listed in Table 2.

*Table 2 Policy Topics Caucus Frequencies*

<b>Policy Category</b>	<b>Number of caucuses, 1993 - 2016</b>
Agriculture	107
Banking, Finance, and Domestic Commerce	331
Civil Rights, Minority Issues, and Civil Liberties	534
Community Development and Housing	287
Defense	114
Education	165
Energy	286
Environment	192
Foreign Trade	41
Government Operations	160
Health	282
Immigration	87
International Affairs and Foreign Aid	226
Labor and Employment	378
Law, Crime, and Family Issues	324
Macroeconomics	304
Public Lands and Water Management	75
Social Welfare	755
Space, Science, Technology and communications	305
Transportation	179
<b>TOTAL</b>	<b>3596</b>

The data include 3,275 unique caucuses, or 3,596 non-unique caucuses. Each caucus is coded into multiple policy areas, depending on the context of the group. For example, the Rural Health Care



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Coalition is coded as “Health” and “Community Development”. Most caucuses (61.5%) are coded into only one policy area. All caucuses are coded as being in at least one of the 20 possible policy areas.

Caucus membership data was hand collected from the Congressional Yellowbook, using the winter edition of each even numbered year, making it the last directory for each congress (Directories 2012). The volumes are published quarterly and contain phonebook-style entries for each member of congress, included caucuses joined. The data are assembled by the publisher, Leadership Directories, from surveys of members. This is an important source of data for caucus memberships because it is not comprehensively cataloged anywhere else. Caucuses are not required to register with the House Committee on Administration, and many do not. Were we to search for memberships for each registered caucus, we would miss hundreds of non-registered caucuses. There are few costs to failing to register, and even though the process is not onerous, organizations frequently lapse their registration.

I use coding information from the Policy Agendas Project to code caucuses and votes by policy area. For caucuses, the growth has been relative steady across all policy areas over time. Some issue areas have experienced spikes, but most policy areas have seen relatively steady growth. Figure 7 displays these trends.

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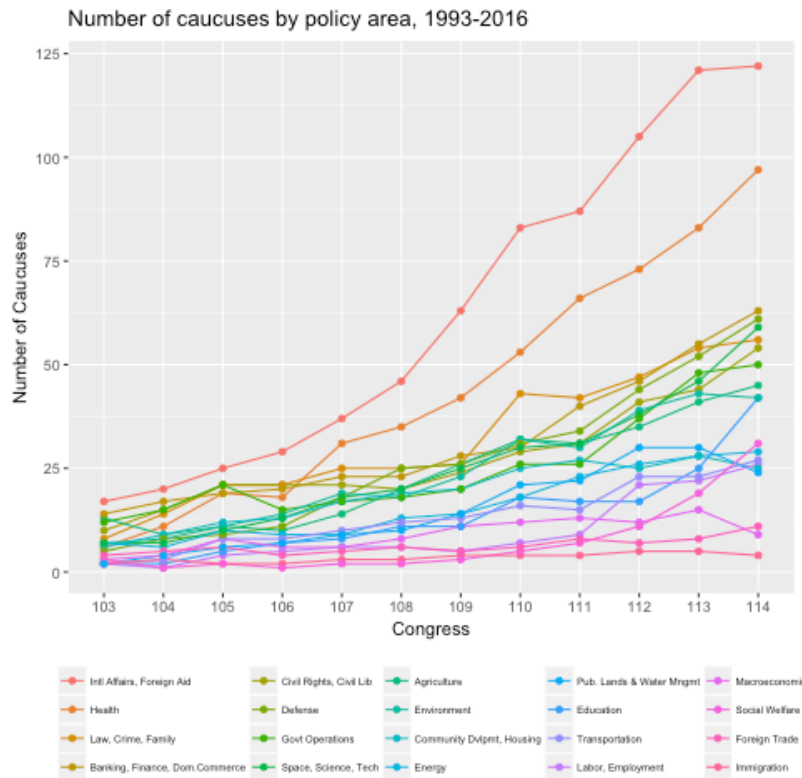


Figure 7 Number of caucuses by policy area, 1993-2016

## Components of cooperation

I test the expectations expressed in the previous section using congressional roll call data. As described above, I operationalize cooperation by examining roll call voting among dyads of members of Congress. The data include observations from 1,151,621 dyads of legislators who participated in roll call votes and caucuses in the 103<sup>rd</sup> (2003-4) to the 114<sup>th</sup> (2015-16) congress.

The statistical model used here seeks to control for unobserved heterogeneity in the relational data by using a fixed effects hierarchical regression approach. Table 3 shows the estimates of two models. Model 1 predicts congressional co-voting with caucus co-participation, in a dyadic approach controlling for same party and caucus co-participation. Additionally, I include an interaction term between party and caucus participation. My expectation is that if caucus co-participation contributes to cooperation, the coefficient on caucus co-participation will be positive; if it contributes to entrenchment the coefficient will be negative. These models are clustered on dyad and use fixed effects for time.

Table 3 Hierarchical Fixed Effects Regression on Co-voting, 1993-2014

Hierarchical fixed effects regression on Co-voting, 1993-2014		
	Model 1 co-voting	Model 2 change in co-vote
Caucus Rookies	-	-0.007*** (0.000)
Caucus co-participation	-0.04*** (0.000)	-0.001*** (0.000)
Same party	0.018*** (0.003)	0.064*** (0.002)
Same party X Caucus Co-participation	0.008*** (0.000)	0.002*** (0.000)
Co-Committee Participation	0.002*** (0.000)	0.009 (0.000)
Constant	0.597*** (0.002)	0.020*** (0.001)
N	1,042,159	672,292
N(groups)	363,809	231,627
R-squared (overall)	0.24	0.33
R-squared(within)	0.47	0.45
R-squared(between)	0.23	0.15
Pr(F)	0.00	0.00

Fixed-effects hierarchical linear model with dyad-clustered standard errors reported in parentheses. The dependent variable in Model 1 is co-voting, in Model 2 it's the change in co-vote from the previous congress. \*\*\* p(t) > 0.01, \*\* p(t) > 0.05.

The results in Model 1 show that caucus co-participation has a negative effect on co-voting, controlling for party and committee relationships. The interaction term in the model means that the coefficient for “caucus co-participation” shows the rate of co-voting among opposite partisans. The findings in Model 1 are consistent with the entrenchment hypothesis, where caucus co-participants are less likely to cooperate on the House floor when they are connected via caucus participation.

Model 2 (Table 3) seeks to leverage the time series nature of the data. Here, the dependent variable is the change in co-voting from one congress to the next. In addition, I focus on the behavior of dyads who have jointly, and newly, joined common caucuses in a congress. That is, I can more accurately examine the effect of caucus co-participation on cooperation by focusing on dyads who move from no caucus co-participation, to new caucus co-participation. If these dyads show positive change in the co-voting, controlling for standard effects, it would suggest that co-participation in caucuses predict cooperation in roll calls. Model 2 shows that so-called caucus rookies are less likely to cooperate in roll calls, controlling for committee connections and partisanship. This is stronger evidence for the entrenchment hypothesis.

In the next section, I investigate the possibility that partisan entrenchment differs by policy area. Congressional behavior is driven by constituency effects. It may be the case that legislators are more likely to cooperate with cross-partisans when their constituencies demand it. If constituency,

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regionalism, and local effects drive a legislators' interest in cooperation, we should observe this in roll call cooperation by policy area.

### Bipartisan agreement among caucus participants versus non-participants, by policy area

In this section, I operationalize bipartisan cooperation or agreement using opposite-party co-voting across roll calls in each of 20 policy sectors. Here, I conceptualize co-participation in a caucus as a potential stimulus for bipartisan interaction. I do not expect to observe behavioral cooperation differences among dyads of opposite party legislators who do not co-participate in caucuses on a policy topic. Then I compare the rate at which these two groups co-vote over roll calls related to each policy area. To be clear, I only examine opposite-party pairs, and I only examine policy relevant roll calls for each group of policy relevant caucuses. I see these limitations as controls that help to isolate the effects of caucus participation on legislators' tendencies to engage in bipartisan cooperation or partisan entrenchment.

I estimate 20 separate hierarchical linear regression models—one for each of the policy areas. In each model, the dependent variable is the change in the co-voting rate among opposite partisan pairs. I use a key independent variable of interest in these models: a dichotomous indicator of pairs where both members of the dyad have joined the caucus in time  $t$ , but who were not members of the caucus in time  $t-1$ . These are new co-participants, or "caucus rookies," in policy relevant caucuses. A positive coefficient on "caucus rookies" indicates increased cooperation due to caucus participation. A negative coefficient on "caucus rookies" indicates increased partisan entrenchment due to caucus participation. All models are restricted to opposite party dyads and include a series of control variables.

Each fixed effects model was estimated in Stata using the xtreg command. The models are clustered on dyads and include fixed effects for time. I also control for the total number of caucuses the members of the dyad joined together for the particular policy area, in addition to controlling for the number of standing legislative committees members of the dyad serve on together and whether dyads are both from the same state.

This modeling strategy is a rough attempt to control for the known autocorrelation between observations. While coveting may not be an explicitly social activity, the data are relational and should be treated as such, statistically. The fixed effects hierarchal model I've used does an acceptable job of

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addressing the known autocorrelation in the data, but I also seek to build models that include more control variable and perhaps make different underlying assumptions about the distribution of the dependent variable (i.e., a QAP or ERGM may do a better job of accounting for underlying connectivity in the data, but I have not tried such models yet).

In Table 4 I show the abbreviated results of 20 regression models, limiting the presentation to the key findings. Each policy area is a separate regression model, where I only report the estimates for the independent variable of interest. Not shown are controls for time, number of common caucuses joined, being from the same state, serving on the same committees.

Table 4 Hierarchical Fixed Effects Regression results, by policy area

Change in Co-voting Rate of Opposite-Party Dyads, 1993 - 2014				
Policy area (hypothesized relationship)	Caucus Rookies	R-squared overall	N	p(F)
<b>Cooperation effect of new caucus exposure</b>				
Macroeconomics (-)	0.017** (0.008)	0.37	2,519	0.00
Energy (+)	0.018*** (0.002)	0.63	33,182	0.00
Public Lands and Water Management (+)	0.022*** (0.004)	0.72	16,036	0.00
<b>Entrenchment effect of new caucus exposure</b>				
Civil Rights, Minority Issues, and Civil Liberties (-)	-0.009*** (0.002)	0.7	56,836	0.00
Health (-)	-0.004*** (0.001)	0.88	81,717	0.00
Labor and Employment (-)	-0.023*** (0.005)	0.76	12,536	0.00
Education (-)	-0.004 (0.003)	0.87	31,321	0.00
Environment (-)	-0.012*** (0.002)	0.53	39,911	0.00
Immigration (-)	-0.065** (0.026)	0.44	1,628	-
Law, Crime, and Family Issues (-)	-0.022*** (0.002)	0.79	71,086	0.000
Social Welfare (-)	-0.024* (0.014)	0.31	5,438	0.00
Community Development and Housing Issues (+)	-0.018*** (0.004)	0.68	52,663	0.00
Banking, Finance, and Domestic Commerce (-)	-0.006*** (0.002)	0.67	37,286	0.00
Defense (-)	-0.007*** (0.001)	0.81	49,145	0.000
Space, Science, Technology and Communications (+)	-0.017*** (0.003)	0.82	36,614	0.00
International Affairs and Foreign Aid (-)	-0.011*** (0.002)	0.73	68,517	0.00
Government Operations (-)	-0.028*** (0.002)	0.64	14,251	0.00
<b>No Effect</b>				
Agriculture (+)	0.005 (0.004)	0.42	30,049	0.00
Foreign Trade (+)	0.043 (0.033)	0.2	564	0.000
Transportation (+)	0.003 (0.004)	0.85	24,383	0.00

Fixed-effects hierarchical linear model with dyad-clustered standard errors reported in parentheses. The dependent variable in each model is co-vote change and only include opposite party dyads. Each policy area is a separate regression model, where I only report the estimates for the independent variable of interest. In parentheses next to the policy category I show the hypothesized relationship. Not shown are controls for time, number of common caucuses joined, being from the same state, serving on the same committees. \*\*\* p(t) > 0.01, \*\* p(t) > 0.05.

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These analyses show only three policy areas where co-participation in legislative caucuses render participants to show more cooperation in their roll call voting across the aisle: macroeconomics, energy, and public lands and water management. In addition, there are three policy categories that show no effect of caucus co-participation on voting cooperation: agriculture, foreign trade, and transportation. The remaining 14 policy areas show evidence of partisan retrenchment. The negative coefficient on caucus co-participation in most of the models suggest that generally, connectivity between legislators contribute to partisan entrenchment.

In general, the evidence is consistent with Hypothesis 2, meaning that in general connectivity through caucuses contributes to partisan entrenchment. I also find support for the hypothesized policy differentiation in hypotheses 3 and 4. There are only 3 of 20 policy areas that show the opposite relationship than expected. I hypothesized that macroeconomics would be a partisan and national topic that would be more likely to produce entrenchment, but the evidence shows cooperation on these topics. Tax cuts are popular. I also find the opposite sign community housing, and space and technology. I hypothesized that these would be more likely to produce cooperation, because they are more technical and more local; however, the evidence shows entrenchment in these policy areas.

There are also three policy areas that show no effect because caucus connectivity and voting cooperation. These include agriculture, foreign trade, and transportation. All of these were hypothesized to produce cooperation, but the evidence does not support that.

The remaining policy areas all show evidence of partisan entrenchment, meaning that the more legislators are connected through caucuses in these areas, the *less* likely they are to vote the same way. These areas include civil rights/civil liberties, health, labor and employment, education, environment, immigration, law and crime, social welfare, banking/finance/domestic commerce, defense, international affairs, and government affairs.

This analysis represents a rough cut at these hypotheses. The tests can be improved by including more co-variables (such as co-sponsorship, and co-regionalism); however, I strongly suspect these will be overly correlated with the existing models as to not add to the explained variance in the data. The test of the hypotheses could also be improved by using an underlying statistical model that better accounts for autocorrelation, such as an exponential random graph model.

## Conclusions

The initial findings of this research suggest that connectivity between legislators contributes to partisan entrenchment among them. Contrary to conventional wisdom, where if people just got to know each other better they might develop empathy with one another and cooperate more often, my results show that increased connectivity between legislators contributes to solidified partisan entrenchment, except in a few policy domains. Polarization and partisan gridlock, it seems, cannot be solved by greater exposure and interaction. As legislators interact and connect more with one another, they may become more hardened in their differences.

Competing theories from sociology and political psychology lead to differing expectations about how increased bipartisan interaction could generate both more and less cooperative behavior. I investigate these possibilities in a policy sensitive way, appreciating that tendencies to cooperate are likely specific to policy area. By examining dyadic-level behavior of cross-partisans who join caucuses in the same policy area in the same time period and observing the rate of change of their agreement I observe both cooperation and partisan entrenchment in various policy areas.

The Climate Solutions caucus may be misguided. It's not clear that increased interaction between cross-partisans can help them to cooperate on policies or lawmaking. Institutional features, such as electoral incentives and party control, may trump a social network effect on behavior. The Noah's Ark approach to building relationships may, in fact, backfire.

## Bibliography

- Achen, Christopher H., and Larry M. Bartels. 2016. *Democracy for Realists: Why Elections Do Not Produce Responsive Government*. Princeton: Princeton University Press.
- Baekgaard, Martin, Julian Christensen, Casper Mondrup Dahlmann, Asbjørn Mathiasen, and Niels Bjørn Grund Petersen. 2017. "The Role of Evidence in Politics: Motivated Reasoning and Persuasion among Politicians." *British Journal of Political Science*, August, 1–24. <https://doi.org/10.1017/S0007123417000084>.
- Calvert, Randall L. 1985. "Robustness of the Multidimensional Voting Model: Candidate Motivations, Uncertainty, and Convergence." *American Journal of Political Science* 29 (1): 69–95. <https://doi.org/10.2307/2111212>.
- DeBonis, Mike. 2016. "Judge Dashes Merrick Garland's Final, Faint Hope for a Supreme Court Seat." *Washington Post*, November 18, 2016. [https://www.washingtonpost.com/news/powerpost/wp/2016/11/18/judge-dashes-merrick-garlands-final-faint-hope-for-a-supreme-court-seat/?utm\\_term=.712e3164c42b](https://www.washingtonpost.com/news/powerpost/wp/2016/11/18/judge-dashes-merrick-garlands-final-faint-hope-for-a-supreme-court-seat/?utm_term=.712e3164c42b).
- Directories, Leadership. 2012. *Congressional Yellow Book Winter 2012 Who's Who in Congress, Including Committees and Key Staff*. Leadership Directories.
- Edwards, Kari, and Edward E. Smith. 1996. "A Disconfirmation Bias in the Evaluation of Arguments." *Journal of Personality and Social Psychology* 71 (1): 5.
- Esterling, Kevin M. 2007. "Buying Expertise: Campaign Contributions and Attention to Policy Analysis in Congressional Committees." *American Political Science Review* 101 (01): 93–109.
- Feiock, Richard C., and John T. Scholz, eds. 2010. *Self-Organizing Federalism: Collaborative Mechanisms to Mitigate Institutional Collective Action Dilemmas*. Cambridge, UK ; New York: Cambridge University Press.
- Granovetter, Mark S. 1973. "The Strength of Weak Ties." *American Journal of Sociology* 78 (6): 1360–80.
- Harbridge, Laurel. 2015. *Is Bipartisanship Dead?: Policy Agreement and Agenda-Setting in the House of Representatives*. New York, NY: Cambridge University Press.
- Harbridge-Yong, Laurel. 2015. "Congress Is More Bipartisan than You Think." *Washington Post*, May 4, 2015, sec. Monkey Cage. <https://www.washingtonpost.com/news/monkey-cage/wp/2015/05/04/congress-is-more-bipartisan-than-you-think/>.
- Huckfeldt, Robert, Paul Johnson, and John Sprague. 2004. *Political Disagreement: The Survival of Diverse Opinions within Communication Networks*. New York: Cambridge University Press. <http://poq.oxfordjournals.org/content/69/3/473>.
- Kuklinski, James H., Paul J. Quirk, Jennifer Jerit, David Schwieder, and Robert F. Rich. 2000. "Misinformation and the Currency of Democratic Citizenship." *The Journal of Politics* 62 (3): 790–816. <https://doi.org/10.1111/0022-3816.00033>.
- Kuklinski, James H., Paul J. Quirk, David Schwieder, and Robert F. Rich. 1998. "'Just the Facts, Ma'am': Political Facts and Public Opinion." *The ANNALS of the American Academy of Political and Social Science* 560 (1): 143–54. <https://doi.org/10.1177/0002716298560001011>.
- Lau, Richard R., and David P. Redlawsk. 2001. "Advantages and Disadvantages of Cognitive Heuristics in Political Decision Making." *American Journal of Political Science* 45 (4): 951–71. <https://doi.org/10.2307/2669334>.
- Lord, Charles G., Lee Ross, and Mark R. Lepper. 1979. "Biased Assimilation and Attitude Polarization: The Effects of Prior Theories on Subsequently Considered Evidence." *Journal of Personality and Social Psychology* 37 (11): 2098.



- Lupia, Arthur, and Mathew D. McCubbins. 1998. *The Democratic Dilemma: Can Citizens Learn What They Need to Know?* Cambridge University Press.
- Mann, Thomas E., and Norman J. Ornstein. 2006. *The Broken Branch: How Congress Is Failing America and How to Get It Back on Track.* Oxford University Press.
- Mayhew, David R. 2004. *Congress: The Electoral Connection, Second Edition.* 2 edition. New Haven: Yale University Press.
- McCarty, Nolan. 2014. "The Decline of Regular Order in Appropriations: Does It Matter?" [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2537444](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2537444).
- McPherson, Miller, Lynn Smith-Lovin, and James M. Cook. 2001. "Birds of a Feather: Homophily in Social Networks." *Annual Review of Sociology* 27: 415–44.
- Meffert, Michael F., Sungeun Chung, Amber J. Joiner, Leah Waks, and Jennifer Garst. 2006. "The Effects of Negativity and Motivated Information Processing During a Political Campaign." *Journal of Communication* 56 (1): 27–51. <https://doi.org/10.1111/j.1460-2466.2006.00003.x>.
- Mutz, Diana C. 2002a. "Cross-Cutting Social Networks: Testing Democratic Theory in Practice." *The American Political Science Review* 96 (1): 111–26.
- . 2002b. "The Consequences of Cross-Cutting Networks for Political Participation." *American Journal of Political Science* 46 (4): 838–55. <https://doi.org/10.2307/3088437>.
- Nyhan, Brendan, and Jason Reifler. 2010. "When Corrections Fail: The Persistence of Political Misperceptions." *Political Behavior* 32 (2): 303–30. <https://doi.org/10.1007/s11109-010-9112-2>.
- . 2014. "The Effect of Fact-Checking on Elites: A Field Experiment on U.S. State Legislators." *American Journal of Political Science*, October, n/a-n/a. <https://doi.org/10.1111/ajps.12162>.
- Nyhan, Brendan, Jason Reifler, Sean Richey, and Gary L. Freed. 2014. "Effective Messages in Vaccine Promotion: A Randomized Trial." *Pediatrics* 133 (4): e835–42. <https://doi.org/10.1542/peds.2013-2365>.
- Oliver, Eric J., and Janelle Wong. 2003. "Intergroup Prejudice in Multiethnic Settings." *American Journal of Political Science* 47 (4): 567–82. <https://doi.org/10.1111/1540-5907.00040>.
- Redlawsk, David P. 2002. "Hot Cognition or Cool Consideration? Testing the Effects of Motivated Reasoning on Political Decision Making." *Journal of Politics* 64 (4): 1021–44. <https://doi.org/10.1111/1468-2508.00161>.
- Ringe, Nils, and Jennifer Nicoll Victor. 2013. *Bridging the Information Gap: Legislative Member Organizations as Social Networks in the United States and the European Union.* Ann Arbor, MI: University of Michigan Press.
- . n.d. "LMO Database." Accessed August 27, 2017. <http://bridgeinfo.org/database/>.
- Ringe, Nils, Jennifer Nicoll Victor, and Justin H. Gross. 2013. "Keeping Your Friends Close and Your Enemies Closer? Information Networks in Legislative Politics." *British Journal of Political Science* 43 (03): 601–28. <https://doi.org/10.1017/S0007123412000518>.
- Rodriguez, Joanna. 2017. "PBS Newshour: Curbelo, Rising Conservative Voices Call for Climate Change Action." Congressman Carlos Curbelo. May 15, 2017. <https://curbelo.house.gov/news/documentsingle.aspx?DocumentID=1462>.
- Sinclair, Barbara. 2011. *Unorthodox Lawmaking: New Legislative Processes in the U.S. Congress.* SAGE.
- Slothuus, Rune, and Claes H. de Vreese. 2010. "Political Parties, Motivated Reasoning, and Issue Framing Effects." *The Journal of Politics* 72 (3): 630–45. <https://doi.org/10.1017/S002238161000006X>.
- Taber, Charles S., and Milton Lodge. 2006. "Motivated Skepticism in the Evaluation of Political Beliefs." *American Journal of Political Science* 50 (3): 755–69. <https://doi.org/10.1111/j.1540-5907.2006.00214.x>.
- Thurber, James A., and Antoine Yoshinaka, eds. 2016. *American Gridlock: The Sources, Character, and Impact of Political Polarization.* New York: Cambridge University Press.

- Victor, Jennifer Nicoll, Alexander H. Montgomery, and Mark Lubell, eds. 2017. *The Oxford Handbook of Political Networks*. Oxford ; New York: Oxford University Press Inc.
- Victor, Jennifer Nicoll, and Nils Ringe. 2009. "The Social Utility of Informal Institutions Caucuses as Networks in the 110th U.S. House of Representatives." *American Politics Research* 37 (5): 742–66. <https://doi.org/10.1177/1532673X09337183>.