

Justice, Interrupted: The Effect of Gender, Ideology and Seniority at Supreme Court Oral Arguments⁺

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Abstract

Oral arguments at the Supreme Court are important—they affect case outcomes and constitute the only opportunity for outsiders to directly witness the behavior of the justices of the highest court. This Article studies how the justices compete to have influence at oral argument, by examining the extent to which the Justices interrupt each other; it also scrutinizes how advocates interrupt the Justices, contrary to the rules of the Court. We find that judicial interactions at oral argument are highly gendered, with women being interrupted at disproportionate rates by their male colleagues, as well as by male advocates. Oral argument interruptions are also highly ideological, not only because ideological foes interrupt each other far more than ideological allies do, but we show that conservatives interrupt liberals more frequently than vice versa. Seniority also has some influence on oral arguments, but primarily through the female justices learning over time how to behave more like male justices, avoiding traditionally female linguistic framing in order to reduce the extent to which they are dominated by the men.

We use two separate databases to examine how robust these findings are: a publicly available database of Roberts Court oral arguments, and another that we created, providing in-depth analysis of the 1990, 2002, and 2015 Terms. This latter data allows us to see whether the same patterns held when there were one, two, and three female justices on the Court, respectively. These two sets of analyses allow us to show that the effects of gender, ideology, and seniority on interruptions have occurred fairly consistently over time. It also reveals that the increase in interruptions over time is not a product of Justice Scalia's particularly disruptive style, as some have theorized, nor of the political polarization in the country generally arising from the 1994 Republican Revolution. We also find some evidence that judicial divisions based on legal methodology, as well as ideology, lead to greater interruptions.

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I. Introduction

In a recent New York Times article discussing Senator Mitch McConnell’s silencing of Senator Elizabeth Warren on the Senate floor, Susan Chira asked: “Was there a woman who didn’t recognize herself in the specter of Elizabeth Warren silenced by a roomful of men?”¹ Chira claimed this event “resonates with so many women precisely because they have been there, over and over again. At a meeting where you speak up, only to be cut off by a man. Where your ideas are ignored until a man repeats them and then they are pure genius—or, simply, acknowledged.”² This act of a male silencing a female was performed on the United States Senate’s floor, suggesting that the Legislative Branch is not immune to the gender inequalities that exist in society generally.³ This Article shows that the highest Court in our Judicial Branch suffers from the same disparate patterns of communication between men and women—regularly and predictably. By analyzing judicial behaviors during oral arguments, this Article determines which factors significantly affect the rate of interruptions between the justices, finding that gender and ideology are highly predictive, and that seniority is relevant but less influential.

The effect of gender is striking when listening to recent oral arguments. For example, in *Bank Markazi vs. Peterson*,⁴ Justice Ginsburg began asking advocate Jeffrey A. Lamken a question, but only got as far as saying, “Is there -- are there any --” before being interrupted by Justice Kennedy, who said, “Well, suppose there were three unrelated cases.”⁵ Lamken responded, “Pardon?,” and Kennedy restated his comment and then asked a question.⁶ He and the advocate had a back-and-forth before Kennedy acknowledged, “I -- I inadvertently interrupted Justice Ginsburg . . .” But rather than ceding the floor to Ginsburg, Kennedy continued with his inquiry.⁷ This is just one of numerous examples from the 2015 Term where a male Justice interrupted a female Justice.⁸

We find that male Justices have been interrupting female Justices prior to the Roberts Court. As well as examining the publicly available data on the Roberts Court, we have built a secondary database of three Terms, hand-coding all interruptions in every case during the 1990, 2002, and 2015 Terms. This additional data allows us to study in depth three different periods of the Court, including where one, two, and three female Justices, respectively, sat on the previously exclusively male Bench. The two databases allow us to comprehensively examine interruptions on the modern Supreme Court.

We find that interruptions do not always occur in a direct manner like the example above. In fact, the most unusual aspect of the *Markazi* example is that Kennedy acknowledged interrupting Ginsburg at all. We find numerous instances where the male Justices acknowledge interrupting other men but very few indeed where a Justice acknowledges interrupting a woman, despite having considerably more opportunity to do so: in some Terms, the female Justices are interrupted more often than the male Justices, despite their permanent minority status on the Court.

¹ Susan Chira, *Elizabeth Warren Was Told To Be Quiet. Women Can Relate*, N.Y. TIMES, Feb. 8 2017, https://mobile.nytimes.com/2017/02/08/opinion/elizabeth-warren-was-told-to-be-quiet-women-can-relate.html?smid=tw-share&_r=0&referrer=https://t.co/epyzXUyy7.

² *Id.*

³ See Cathryn Johnson, *Gender, Legitimate Authority, and Leader-Subordinate Conversations*, 59 AM. SOC. REV. 122, 126 (1994) (finding that men dominate conversations, with higher rates of talking and interrupting).

⁴ 136 S. Ct. 1310 (2016).

⁵ Oral Argument at 0:56, *Bank Markazi*, <https://www.oyez.org/cases/2015/14-770>.

⁶ *Id.* at 1:00.

⁷ *Id.* at 1:26.

⁸ See *infra* Part II.B.

Other gendered interruption behavior includes what is now the recognized phenomenon of “mansplaining,” whereby a man either unnecessarily explains to a woman something that the woman is just as likely to know as the man, or explains to a third party what the woman is “trying to say.”⁹ An example of the latter, from the 2002 Term, is seen in *Boeing Company v. United States*:¹⁰

Kent L. Jones: I’m sorry. I meant the reg. The 861-8 reg was . . . was formulated with the calculation of combined taxable income expressly in mind, and we know that both by the terms of the reg 861-8(f)--

Sandra Day O’Connor: Well, how do we know that?

Anthony M. Kennedy: Getting back to Justice Scalia’s question, and I think it relates to what Justice O’Connor is asking too, is . . . is your answer to the last argument, that a transaction-by-transaction basis . . . we would . . . would clearly not have this problem . . . is we clearly would have this problem and we’d look at 861, and you’d lose there too?¹¹

This exchange illustrates two things: first, notwithstanding the recent attention given to “mansplaining,” it has been occurring for decades;¹² and second, even female Justices on the Supreme Court are subjected to this phenomenon, despite having reached the highest pinnacle possible in one of the highest status professions.

Using a variety of statistical techniques, we find that even though female Justices speak less often and use fewer words than male Justices, they are nonetheless interrupted during oral argument at a significantly higher rate. Men interrupt more than women, and they particularly interrupt women more than they interrupt men. This effect is not limited to the male Justices: the male advocates also regularly interrupt the female Justices. This is surprising, both because the Court’s guidelines explicitly prohibit advocates from interrupting Justices,¹³ and because the Chief Justice is supposed to intervene when this occurs. We see a clear example of this happening in *Wiggins v. Smith*:¹⁴

Antonin Scalia: No. He reached the conclusion because --

Donald B. Verrilli, Jr.: And that’s completely supported by the proffer.

Antonin Scalia: --He reached the conclusion because he --

William H. Rehnquist: --No two voices at the same time. Justice Scalia is asking you a question.

Donald B. Verrilli, Jr.: Excuse me.¹⁵

⁹ See Rebecca Solnit, *Men who explain things*, LA TIMES, April 13, 2008 (heralding contemporary interest in the phenomena by describing a man interrupting her to explain her own book to her).

¹⁰ 537 U.S. 437 (2003).

¹¹ Oral Argument at 31:12, *Boeing*, <https://www.oyez.org/cases/2002/01-1209>.

¹² See Lily Rothman, *A Cultural History of Mansplaining*, ATLANTIC, Nov. 1, 2012, <https://www.theatlantic.com/sexes/archive/2012/11/a-cultural-history-of-mansplaining/264380/> (describing the history of both the term and the practice that preceded the term by many decades).

¹³ “Never interrupt a Justice who is addressing you. Give your full time and attention to that Justice. . . If you are speaking and a Justice interrupts you, cease talking immediately and listen.” GUIDE FOR COUNSEL IN CASES TO BE ARGUED BEFORE THE SUPREME COURT OF THE UNITED STATES 9 (2015 ed.).

¹⁴ 539 U.S. 510 (2003).

¹⁵ Oral Argument at 17:36, *Wiggins*, <https://www.oyez.org/cases/2002/02-311>.

In contrast, in *American Insurance Ass'n v. Garamendi*,¹⁶ the Chief Justice allowed the following exchange:

Ruth Bader Ginsburg: But when you take what the President undertook, which was just to use best efforts, that doesn't sound like--

Kenneth Steven Geller: --Under the Supremacy--

Ruth Bader Ginsburg: --this Court would have much to--

Kenneth Steven Geller: --Justice Ginsburg, I think it's the operation of the Supremacy Clause.¹⁷

Whether direct interruptions, lack of acknowledgment of interruptions, or “mansplaining interruptions,” the differences in the behaviors among and between the male and female Justices and the advocates and the female Justices raises a question: are female Justices on the Supreme Court provided equal opportunity to question advocates during oral arguments? The example below, from *Fisher v. University of Texas*,¹⁸ provides some insight on that question, as Justice Scalia blatantly interrupts Justice Sotomayor in the middle of her question:

Bert W. Rein: His estimate was that a very small number, and it -- it's in his opinion. It's not only by percentage, but it's by number, and that number is insignificant relative --

Sonia Sotomayor: Do you think -- do you think that change has to happen overnight? And do you think it's --

Antonin Scalia: Excuse me. Can I -- can I hear what you were about to say? What are those numbers? I was really curious to hear those numbers.

Bert W. Rein: He assumed, at the outside, that any of the admits that were actually African-American or Hispanic outside the Top Ten, he said let me take that assumption and see what it would add.¹⁹

Given that Justices are permitted, and frequently do, interrupt advocates, Scalia's interruption was a breach of that norm, prioritizing both the advocate's response and his own interest above that of Sotomayor's inquiry. The effect of this breach was that Sotomayor's question went unaddressed as Rein instead responded to Scalia's demands. One may look at the significant discrepancies in seniority and ideology between Scalia and Sotomayor, however, and surmise that the interruption could be the effect of such differences.

Seniority could be relevant to judicial interruptions either directly, as an application of the more general norm that one should not interrupt one's elders, or as an interaction with other factors, particularly gender and ideology. We know that there are some seniority-based norms on the Court. For example, Justices speak and cast votes in order of seniority at post-conference and the most junior Justice has to open the door and take notes at conference.²⁰ This raises the expectation that other norms of seniority could apply, particularly an expectation of greater deference to more senior Justices. While scholars have looked at whether there is a ‘freshman effect’ on interruption behavior,

¹⁶ 539 U.S. 396 (2003).

¹⁷ Oral Argument at 9:58, *Garamendi*, <https://www.oyez.org/cases/2002/02-722>.

¹⁸ 136 S. Ct. 2198 (2016).

¹⁹ Oral Argument at 1:29:32, *Fisher*, <https://www.oyez.org/cases/2015/14-981>.

²⁰ Lincoln Caplan, *The Junior Justice*, AMERICAN PROSPECT, May 4, 2015, <http://prospect.org/article/junior-justice> (reporting Justice Kagan's description of being the “junior justice”).

with Justices being more reticent when first appointed to the Court due to their inexperience, we anticipate a broader effect could apply, either because senior Justices are given more deference or because senior Justices are confident enough—or perhaps they feel more entitled—to be more forceful in their questioning.

Additionally, it is important to look at seniority to address one likely response to findings of the gender effect, given that two of the three Justices on the Roberts Court are also the two most junior Justices. Because we also use pre-Roberts-Court data, we are able to explore this alternative theory. We find some evidence of a seniority effect, but rather than explaining the gender differences on the Court, the direct effect of seniority is dwarfed by the effect of gender.

Nevertheless, seniority is important in a different way: longer tenure on the Court provides time and opportunity to learn. By beginning our analysis with the 1990 Term, we are able to pinpoint shifts in the way women ask questions on the Bench. We find evidence that the female Justices have learned to change their speech patterns, transitioning from a less assertive questioning style to a more direct, aggressive style that men typically use,²¹ to avoid being interrupted as regularly.

Very little attention has been paid to the effect of ideology in shaping judicial behavior during oral argument, despite the enormous and still growing literature establishing the effect of ideology on other forms of judicial behavior.²² Still, scholars have shown that ideology is relevant to oral arguments and that a Justice is more likely to interrupt an advocate who is arguing a position to which a Justice is ideologically opposed.²³ We hypothesize that Justices of opposing ideological views are more likely to interrupt each other than those who are politically aligned. Given all the evidence of the importance of ideological difference on the Court, we are confident of there being some ideological effect; far more nuanced inquiry, however, is possible.

First, we explore whether the effect of ideology is categorical or continuous—that is, does the size of the ideological gap between Justices of opposing ideologies also matter? If not, then ideology on the Court looks a lot like partisanship, a dispute between two camps of ideologues; if true, then ideology on the Court looks much more like outcome-based disputes between Justices with a variety of views who are not simply polarized along partisan lines. Second, the fact that interruptions of and by the advocates are increasing is no secret,²⁴ but its cause is not clear. One possibility is that disruptive behavior on the Court reflects the broader political polarization in the nation, which accelerated after the Republican Revolution of 1994.²⁵ Alternatively, some have pointed to the entrance of Justice Scalia on the Court in 1986 as being the catalyst for increasing disruption on the Court.²⁶ With data going back to 1990, we are able to distinguish between these two theories by assessing whether there was an ideological divide in judicial interruptions after 1986 and prior to 1994.

²¹ See *infra* Part II.B.

²² See *infra* Part II.C.

²³ Timothy R. Johnson, Paul J. Wahlbeck, & James F. Spriggs, *The Influence of Oral Arguments on the U.S. Supreme Court*, 100 AM. POL. SCI. REV. 99 (2006); see also *infra* Part II.C.

²⁴ Barry Sullivan & Megan M. Canty, *Interruptions in Search of a Purpose: Oral Argument in the Supreme Court, October Terms 1958-60 and 2010-12*, 2015 UTAH L. REV. 1005 (2015) (showing an increase in judicial interruptions of advocates).

²⁵ Pew Research Center, *Political Polarization in the American Public*, June 12, 2014, <http://www.people-press.org/2014/06/12/political-polarization-in-the-american-public/> (finding that “ideological thinking is now much more closely aligned with partisanship and . . . ideological overlap between the two parties has diminished” since 1994).

²⁶ See *infra* Part II.C.

Thus, we look at the effect of gender, ideology, and seniority on interruptions between the Justices during oral arguments. The Article proceeds as follows. Part II develops the background to our inquiry, presenting the theories behind each of our key three hypotheses and presenting a review of prior study in each area. First, we describe the importance of oral arguments, which relates to our hypothesis on the effect that interruptions may have on the overall decision-making process. Then, we discuss in turn the three central factors that we expect will affect interruptions between the Justices: gender, ideology, and seniority. The literatures draw on psychology research behind gender and interruptions in social and professional settings and political science research on ideology. In addition, we provide examples from the oral argument transcripts for the potential impact of each factor. Parts II and III present our empirical results. In Part III, we examine the effect of our three variables on interruptions at the Roberts Court. We first explain our methodology and control variables, before describing how we control for cases that are more salient or controversial than others and other idiosyncratic issues that arise. We then provide a detailed descriptive analysis of the Roberts Court interruptions and end the Part by conducting multivariate regressions. Part IV analyzes the 1990, 2002, and 2015 Terms in detail. We find that much of the behavior is consistent across the different eras; however, there are some inquiries that cannot be rigorously conducted just looking at the Roberts Court, and doing so leads to some misleading impressions. In particular, there is no variation in the ideology of female Justices during that time, and thus it is impossible to assess the differential impact of the two key variables that shape interactions. Our earlier data allows us to disentangle these effects, as well as to examine changes over time and consider the extent to which Justices learn. The Conclusion summarizes our findings and their implications, and provides recommendations for the Court.

II. Theory and Literature of Interruptions

A. *First Impressions*

Anyone listening to the Supreme Court's oral arguments in the 2015 Term should have been struck by how frequently female Justices were interrupted by their male colleagues and by the advocates.²⁷ As a teacher and a student, respectively, in a law school class on Supreme Court oral arguments, we were each struck by the extent of this gendered series of faux pas. This is what a count of all interruptions²⁸ in the 2015 Court Term look like, considered in terms of pairwise interruptions:

²⁷ Though some commentators see it differently: NPR legal correspondent Nina Totenberg, while acknowledging sexism in reporting of the nomination process, said “that seemed to change once the [J]ustices were sworn in. . . Once they put on that black robe. . . they become unisex” and when it comes to oral arguments, she does not think “Justices focus on gender.” Mallery Jean Tenore, *As Supreme Court begins new term, how to explain justices' silences, interruptions, and 'aggressive' questions*, POYNTER, Oct. 3, 2011, <https://www.poynter.org/2011/as-supreme-court-reconvenes-how-to-understand-the-justices-silences-interruptions-and-aggressive-questions/147856/>. Our results belie this claim.

²⁸ Later, we consider only interruptions of more than one second, to avoid potentially over-counting interruptions that could result from two people speaking almost simultaneously. *See infra* Part III.

Table 1: All interruptions in 2015, by Justice-pairs

Got Interrupted	<i>Who Interrupted</i>								
	Alito	Breyer	Ginsburg	Kagan	Kennedy	Roberts	Scalia	Sotomayor	Thomas
Alito		2	1	6	3	12	3	2	
Breyer	3		2	1	8	5	12	2	
Ginsburg	1	2		6	11	4	3	1	
Kagan	10	6	7		11	10	8	2	
Kennedy	1	9	2	3		3	3	6	
Roberts	4	3	5	3	7			5	
Scalia	1	4	4	6	2			2	
Sotomayor	14	3	4	7	15	12	5		
Thomas									

As seen in Table 1, it is immediately apparent that women were interrupted at far higher rates than men: for example, we observe only two instances of a male Justice being interrupted by another single Justice at a double digit rate (ten or more times) but seven instances of a female Justice being so interrupted. Note that this was despite the fact that there were only three women, compared to six men, on the Court, so if interruptions were gender-blind, we would expect twice as many men to be cut off at any given threshold.²⁹ Also, note that no woman interrupted any man in such high numbers during the entire 2015 Term. We wondered how typical this behavior was: was 2015 a particularly contentious year or are female Justices, despite having reached the very pinnacle of a high status profession, still subject to being treated as conversational inferiors? We also noted similar discrepancies in interactions between Justices and advocates and wanted to explore that related phenomenon.

But of course, gender is not the only salient characteristic of a Supreme Court Justice. Any serious scholar of the Court knows that ideology is a significant predictor of various forms of judicial behavior,³⁰ so we were alert to potential ideological causes of interruptions. Note from Table 1 that the two moderates on the Court, Kennedy, the median, and Roberts, the Chief Justice,³¹ were not interrupted at these high rates by any other Justice on Court.³² However, these two Justices are

²⁹ Justice Thomas barely spoke and so was not interrupted. We account for rates of speaking and number of speech episodes in our empirical analyses. *See infra* Parts III, IV.

³⁰ *See infra* Part II.B.

³¹ Note that both of these Justices are moderate conservatives. We describe how the ideological positions of the Justices are measured *infra* Part II.C.

³² Neither was Thomas, but for different reasons.

each responsible for double-digit interruptions of three of their colleagues, and Kennedy and Roberts alone account for six of the nine instances of frequent interruptions. We wanted to know if ideology predicts interruptions, either as an expression of cross-ideological disagreement or as a reflection of the power of the median or moderate Justices over their more extreme colleagues, since the extreme Justices are dependent on the central Justices to form majority coalitions.³³

Finally, we considered the possibility that seniority may be at play and that gender simply coincides with seniority. We recognized that two of the three female Justices, Kagan and Sotomayor, are very junior on the Court and that each is interrupted far more frequently than the other woman, Ginsburg. In addition, Table 1 provides some provisional support for the seniority hypothesis: of the most senior Justices—Ginsburg, Kennedy, Scalia, and Breyer—only Ginsburg and Breyer are interrupted at high rates.³⁴ In contrast, the more junior Justices—Kagan, Sotomayor, and Alito³⁵—account for the other seven high interruptions rates.

Thus, by examining interruption behavior just in Court Term 2015, we formed three key hypotheses: that gender, ideology, and seniority—or some combination of the three—explain variation in rates of interruptions. The rest of this Part describes the relevant literature pertaining to each of these three hypotheses and develops in more detail the theory behind each.

B. *Interruptions at Oral Argument*

Despite the sizable literature devoted to understanding strategic judicial behavior,³⁶ there is surprisingly little research on how the Justices use oral arguments—either sincerely to learn or more strategically to achieve their goals.³⁷ Within the limited existing research, however, there is a clear interest in the effectiveness of oral argument and whether the process serves any meaningful purpose.³⁸ The majority of the research indicates that oral arguments serve various functions and can even affect the Court's ultimate decision.³⁹ Despite these findings suggesting the significance of oral arguments, very little analysis, even within this narrow research band, has been dedicated to the interactions amongst the Justices during oral argument. In this Part, we review the existing literature and demonstrate why it is important to address this gap.

1. *The Significance of Oral Arguments*

The central debate concerning oral argument is whether and to what extent it matters at all. While some have found no indication that the procedure “regularly, or even infrequently, determines who wins and who loses,”⁴⁰ this is a minority view. The majority of researchers have found that oral arguments can “focus the minds of the Justices and present the possibility for fresh perspectives

³³ Lee Epstein & Tonja Jacobi, *Super Medians*, 61 STAN. L. REV. 37, 77 (2008) (finding that Kennedy was in the majority 100% of the time during the 2006 Term).

³⁴ The exceptional relationship between Scalia and Breyer is explored *infra* Part III.

³⁵ Roberts is of the same seniority as Alito but is the Chief Justice, which may prompt similar deference.

³⁶ Lee Epstein & Tonja Jacobi, *The Strategic Analysis of Judicial Decisions*, 6 ANN. REV. L. & SOC. SCI. 341 (2011) (summarizing the extensive literature of strategic judicial behavior).

³⁷ Johnson et al., *supra* note 23 (noting that research on judicial decision making has “ignored” oral arguments).

³⁸ See *id.*; see also THOMAS G. WALKER & LEE EPSTEIN, *THE SUPREME COURT OF THE UNITED STATES: AN INTRODUCTION* 104 (1993).

³⁹ Johnson et al., *supra* note 23, at 99.

⁴⁰ JEFFERY A. SEGAL & HAROLD J. SPAETH, *THE SUPREME COURT AND THE ATTITUDINAL MODEL REVISITED* 280 (2002).

on a case.”⁴¹ Additionally, many studies have found that oral arguments help the Justices gather information,⁴² and one study found that the Justices often “seek new information during these proceedings” in an effort to reach decisions as close as possible to their desired outcomes.⁴³ Barry Sullivan and Megan Canty outline the myriad functions served by oral arguments for both advocates and Justices:⁴⁴ for the advocates, oral argument allows counsel to better emphasize what is important, crystalize relevant issues, and provide a platform to explain the issues to the public;⁴⁵ for the Justices, the process facilitates informed decision-making and serves as an opportunity to communicate and persuade their colleagues.⁴⁶

A study by Timothy Johnson, Paul Wahlbeck, and James Spriggs took the significance debate further by researching whether oral arguments can actually influence the Justices’ votes.⁴⁷ Their findings strongly suggest that oral argument is in fact a critical component of judicial decision-making. Despite controlling for compelling alternative explanations, such as a Justice’s ideology, they found that the Justices do respond to the quality of oral argumentation.⁴⁸ Specifically, “the relative quality of the competing attorneys’ oral arguments influences the Justices’ vote on the merits.”⁴⁹ Of particular importance to our investigation, Johnson et al. found that “[J]ustices who are ideologically opposed to the position advocated by a lawyer have an increased probability of voting for that side of the case if the lawyer provides higher quality oral argument than the opposing counsel.”⁵⁰ Thus, to some extent, oral arguments can sway the Justices against their general ideological proclivities. Therefore, not only does the bulk of the research suggest that oral arguments have a purpose, it also supports the view that the proceedings can influence the outcome of the decision.

It should be noted, however, that even the Justices themselves are split on the issue. Former Chief Justice Rehnquist and Justices Brennan, Douglas, and Blackmun have all made comments highlighting the significance of oral arguments, while Justice O’Connor and former Chief Justice

⁴¹ DAVID O’BRIEN, *STORM CENTER: THE SUPREME COURT IN AMERICAN POLITICS* 275 (4th ed. 1996).

⁴² E.g., William Benoit, *Attorney Argumentation and Supreme Court Opinions*, 26 ARGUMENTATION & ADVOC. 22 (1989); Donald Cohen, *Judicial Predictability in United States Supreme Court Oral Advocacy: Analysis of the Oral Argument in TVA v. Hill*, 2 U. PUGENT SOUND L. REV. 89 (1978); Timothy R. Johnson, *Information, Oral Arguments, and Supreme Court Decision Making*, 29 AM. POL. RES. 331 (2001); Stephen L. Wasby, Anthony A. D’Amato, & Rosemary Metrailler, *The Functions of Oral Argument in the U.S. Supreme Court*, 62 Q. J. SPEECH 410 (1976). *But see* James C. Phillips & Edward L. Carter, *Source of Information or “Dog and Pony Show”?: Judicial Information Seeking During U.S. Supreme Court Oral Argument, 1963-1965 & 2004-2009*, 50 SANTA CLARA L. REV. 79, 133 (2010) (noting that the “information-seeking value” of oral arguments has diminished since the 1960s and that Justices now use oral arguments for speaking, rather than asking”).

⁴³ TIMOTHY R. JOHNSON, *ORAL ARGUMENTS AND DECISION MAKING ON THE U.S. SUPREME COURT* 5 (2004).

⁴⁴ Sullivan & Canty, *supra* note 24.

⁴⁵ *Id.* at 1024.

⁴⁶ *Id.* at 1025; *see also* Phillips & Carter, *supra* note 42, at 171.

⁴⁷ Johnson et al., *supra* note 23, at 99.

⁴⁸ *Id.* at 107.

⁴⁹ *Id.*; *see also* David S. Abrams & Albert H. Yoon, *The Luck of the Draw: Using Random Case Assignment to Investigate Attorney Ability*, 74 U. CHI. L. REV. 1145, 1173 (2007) (showing that a “defendant who is randomly assigned the tenth percentile public defender has a 14% greater chance of receiving incarceration than one assigned to the ninetieth percentile public defender”).

⁵⁰ *Id.*

Warren have downplayed their impact.⁵¹ Rehnquist noted, “if an oral advocate is effective, how he presents his position during oral argument will have something to do with how the case comes out.”⁵² Brennan agreed, “I have had too many occasions when my judgment of a decision has turned on what happened in oral argument.”⁵³ Recently, Justice Kagan chimed in on the potential impact of oral arguments, saying “You can sway people to your side or you can also lose a case in the oral arguments.”⁵⁴ The Johnson et al. study confirms that the majority of Justices behave in a way that comports with the Rehnquist-Brennan-Kagan view that oral arguments matter; overall, they found that nearly all Justices are influenced by the quality of oral arguments.⁵⁵

A recent interaction between Justice Kagan and an advocate, Michael Scodro, illustrates another potential impact of oral arguments on the decision-making process. In *Manuel v. City of Joliet*,⁵⁶ after listening to the Respondent explain his stance at the beginning of his argument, Kagan noted, “But, it seems as though the position that you’re taking now is diametrically opposed to the position that you took in the Seventh Circuit. So I’ll just read you something, and this is from oral argument”⁵⁷ Kagan catches the advocate in a contradiction, and notably, she relies on his statements during oral argument in the Seventh Circuit to illustrate her point. Kagan does not ask the advocate any more questions after noting this contradiction, and appears to treat the statement as if it alone is powerful enough to settle the matter. This suggests that even oral arguments at the lower court level can have an impact on the Justices.

2. Behavior at Oral Arguments

If oral arguments serve multiple purposes and have the power to influence the Justices’ voting, then it is essential that Justices are able to ask the questions they want to ask. The act of interrupting threatens that capacity. Due to the interactive nature of the oral arguments, interruptions of the advocates by the Justices are commonplace. There is only limited research on interruptions amongst the Justices, but what there is suggests that it is also common and has been increasing in recent terms.⁵⁸ Despite the increasing prevalence of Justice-to-Justice interruptions, there is minimal research devoted to the topic.

The mere fact that Justices interrupt one another should come as no surprise based on the existing behavioral literature on oral arguments. At least two studies have concluded that the Justices use the proceedings to converse with one another.⁵⁹ Other studies consider that oral arguments serve as “pre-conferences,” especially during the Rehnquist era, where conferences were said to be

⁵¹ O’BRIEN, *supra* note 41, at 274–85; *see also* WILLIAM H. REHNQUIST, *THE SUPREME COURT: HOW IT WAS, HOW IT IS* 277 (1987); ROBERT L. STERN, EUGENE GRESSMAN, & STEPHEN M. SHAPIRO, *SUPREME COURT PRACTICE: FOR PRACTICE IN THE SUPREME COURT OF THE UNITED STATES* 732 (7th ed. 1993).

⁵² REHNQUIST, *id.*, at 277.

⁵³ STERN ET AL., *supra* note 51, at 732.

⁵⁴ James Iseler, *Justice Kagan shares Supreme Court insights during Law School conversation*, UNIV. MICH. REC. UPDATE, September 10, 2012, <http://www.ur.umich.edu/update/archives/120910/kagan>.

⁵⁵ *Id.*

⁵⁶ (Docket No. 14-9496).

⁵⁷ Oral Argument at 44:59, *Manuel*, <https://www.oyez.org/cases/2016/14-9496>.

⁵⁸ Sullivan & Canty, *supra* note 24, at 1045.

⁵⁹ Timothy R. Johnson, Ryan C. Black, & Justin Wedeking, *Pardon the Interruption: An Empirical Analysis of Supreme Court Justices’ Behavior During Oral Arguments*, 55 LOY. L. REV. 331 (2009); *see also* David R. Gibson, *Opportunistic Interruptions: Interactional Vulnerabilities Deriving from Linearization*, 68 SOC. PSYCHOL. Q. 316 (2005) (studying opportunistic interruptions in Supreme Court oral arguments and Pentagon press briefings).

short and ineffective.⁶⁰ Others have determined that oral arguments allow the Justices to make their cases to other Justices.⁶¹ This description receives the concurrence of some of the Justices themselves. Justice Breyer commented, “[During oral arguments] the Court is having a conversation with itself through the intermediary of the attorney.”⁶² Additionally, Justice Scalia noted, “It isn’t just an interchange between counsel and each of the individual Justices; what is going on is to some extent an exchange of information among Justices themselves.”⁶³ Given this, it follows that Justices would interrupt one another—each trying to persuade one another and construct the basis for a coalition in favor of their position.

Sullivan and Canty’s study confirms this theory. They examined the general shift in oral arguments from earlier Court Terms (1958-60) to recent Court Terms (2010-12).⁶⁴ They scrutinized the total amount of time spoken by advocates and Justices, the interactions between them, and the number of interruptions of advocates by Justices.⁶⁵ Though not the central focus of their study, they found that the Justices interrupt each other more in the 2010-12 Terms than in the 1958-60 Terms.⁶⁶ Sullivan and Canty believe that this finding may arise because the Justices only get one chance to speak during the post-conference, as opposed to two times in the earlier Terms.⁶⁷ Thus, consistent with previous studies, this suggests that Justices may now interrupt each other more often because there are few other chances to persuade a colleague or form a coalition prior to voting. Sullivan and Canty’s analysis on interruptions amongst the Justices ends there, however; it does not analyze the interactions between the Justices or investigate other explanations for the increased frequency of interruptions.

Only two studies have devoted significant attention to interruptions amongst the Justices. Johnson et al. counted the number of interruptions amongst the Justices across eight Terms.⁶⁸ An interruption was noted any time two or more Justices spoke back-to-back without an interjection or answer from an advocate.⁶⁹ We think this both over- and under-counts interruptions, as it would inaptly include times when Justices simply make comments and then a colleague speaks, and exclude advocates interrupting Justices.⁷⁰ Nevertheless, it is the best prior analysis. Johnson et al. found that of the 83,000 utterances by Justices, 4,869 were interruptions—roughly 6%.⁷¹ Johnson et al. believe this is a much smaller number than the media, advocates, or even Justices presume.⁷² Yet the more recent Sullivan and Canty study contradicts this finding, finding that interruptions amongst Justices

⁶⁰ DAVID C. FREDERICK, *SUPREME COURT AND APPELLATE ADVOCACY* 5 (2003).

⁶¹ Joan Biskupic, *Justices Make Points by Questioning Lawyers*, USA TODAY, Oct. 5, 2006, http://www.usatoday.com/news/washington/judicial/2006-10-05-oral-arguments_x.htm; see also Sullivan & Canty, *supra* note 24 at 1045–46.

⁶² *America and the Courts* (C-SPAN 1998).

⁶³ *This Honorable Court* (PBS Video 1988).

⁶⁴ Sullivan & Canty, *supra* note 24, at 1005.

⁶⁵ *Id.*

⁶⁶ *Id.* at 1045.

⁶⁷ *Id.*

⁶⁸ Johnson et al., *supra* note 59, at 331.

⁶⁹ *Id.* at 337.

⁷⁰ It also fails to account for other complexities in interruptions. See *infra* Part III.B.b.

⁷¹ *Id.*

⁷² *Id.* at 338.

are common and on the rise.⁷³ Each of these studies only examine a few Terms of the Court, so answering this question more definitively requires analyzing more data: we look at 13 Court Terms spanning 25 years.

In terms of determining the causes of interruptions, Johnson et al. found that ideology contributes to the frequency of Justice-to-Justice interruptions.⁷⁴ For example, Justices Breyer and Scalia, two ideological opponents, interrupt each other the most, while Justices Breyer and Stevens, two ideological allies, rarely interrupt each other.⁷⁵ This study, however, was largely descriptive and did not control for additional variables outside of ideology, such as seniority or gender. Johnson et al. briefly address the “why” component in their conclusion when they suggest that Justices interrupt one another “to either enhance or hinder the learning process [during oral arguments] with an eye toward the coalition-formation process.”⁷⁶ While ideology may be one part of the explanation for the number of Justice-to-Justice interruptions, many questions remain about other potential explanations. Our study not only considers additional variables, but it examines the extent to which the role of ideology interacts with other factors.

In research conducted simultaneously with our own, Adam Feldman and Rebecca Gill analyze the effect of gender on Justice-to-Justice interruptions during the 2004-2014 Terms, using the same data as our Roberts Court database.⁷⁷ Feldman and Gill find a similar effect to our analysis: that there is a power disparity between male and female Justices during oral argument and that female Justices are far more likely to be interrupted than male Justices.⁷⁸ Even after controlling for other factors, such as Justices’ freshman year, ideologies, and voting patterns, Feldman and Gill found that gender is the most significant factor affecting the interruptive behavior.⁷⁹ While Feldman and Gill do not explore the ramifications of these interruptions, they do note, “Female Justices face a unique and significant likelihood of interruption from male Justices, which in turn minimizes their potential to complete their questions and statements during oral argument,” and the “downstream effects of these findings are potentially vast.”⁸⁰

It is not surprising that two separate pairs of scholars found similar effects at the same time: given how striking our results are, what is surprising is that no one has thought to examine this question before. Feldman and Gill reach the same overall conclusion that we do with respect to the Roberts Court; this conclusion, however, highlights the need for the further inquiries, which we undertake. The Feldman and Gill study is limited to the 2004-2014 Terms, and neither explores interruptions between advocates and Justices, nor examines a behavioral shift over time. We examine the Roberts Court using similar statistical analysis, but we also examine prior Terms in close detail. Importantly, our analysis includes consideration of a period in which a female conservative Justice was on the Court—O’Connor—whereas during the Roberts Court era, all three female

⁷³ Sullivan & Canty, *supra* note 24 at 1045.

⁷⁴ Johnson et al., *supra* note 59, at 350.

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ Adam Feldman & Rebecca D. Gill, *Echoes from a Gendered Court: Examining the Justices’ Interactions During Supreme Court Oral Arguments*, at 42, Jan. 31, 2017, unpublished manuscript, SSRN: <https://ssrn.com/abstract=2906136>.

⁷⁸ *Id.* at 61.

⁷⁹ *Id.* at 51.

⁸⁰ *Id.* at 51, 61.

Justices are liberal.⁸¹ Furthermore, Feldman and Gill effectively drop 2004 by excluding O'Connor and Rehnquist.⁸² As such, they exclude all instances of female conservative behavior on the Court, which put serious limitations on their ability to draw conclusions about the relative impact of gender and ideology.⁸³

In addition, Feldman and Gill consider seniority only in terms of whether there is a freshman effect—that is, whether Justices behave differently at the beginning of their tenure.⁸⁴ However, as discussed below, there is reason to believe that seniority has more wide-ranging and complex effects.⁸⁵ Additionally, although Feldman and Gill control for freshman status, ideology, and voting patterns, they do not analyze how these variables are inter-related with gender and interruptions. All three of these issues may be more revealing of gender inequality. For example, not only do the oral argument rules prohibit advocates from interrupting Justices,⁸⁶ but also the research on power and interruptions suggests that those with the authority (the Justices) should never be interrupted.⁸⁷ If, however, the advocates regularly interrupt the Justices, and especially if the female Justices are interrupted at a significantly higher rate than the male Justices, then this cuts against both the rules and the behavioral power dynamics, which would indicate serious inequality in treatment. Therefore, our inquiry conducts a more comprehensive analysis of interruptive behaviors during Supreme Court oral arguments.

C. *Gender and Power at Oral Argument*

Interruptions are considered rude because they break into a person's speech and thus hinder their expression,⁸⁸ and most people agree that they do not enjoy being interrupted.⁸⁹ However, psychologists, linguists, and behaviorists have found that there is more to interruption than simple rudeness. Viewed through a psychological or sociological lens, interruptions are a “violation of a current speaker's right to complete a turn.”⁹⁰ Research suggests that interruptions are attempts by speakers to maximize their power positions in group settings through assertions of dominance.⁹¹ It follows that studies analyzing power dynamics between the genders often include discussions of

⁸¹ See *infra* Part III for an explanation of how we measure this and further discussion of the importance of this difference.

⁸² Feldman & Gill, *supra* note 77, at 46.

⁸³ Discussed further *infra* Part III.

⁸⁴ Feldman & Gill, *supra* note 77, at 50.

⁸⁵ See *infra* Parts II.E. and III.A.

⁸⁶ GUIDE FOR COUNSEL, *supra* note 13.

⁸⁷ See *infra* Part II.C.

⁸⁸ See Judith Martin, *Do Not Pardon the Interruption*, WASH. POST, Aug. 28, 2005, <http://www.washingtonpost.com/wp-dyn/content/article/2005/08/27/AR2005082701151.html>.

⁸⁹ As seen by the numerous articles that have been written on ways to prevent being interrupted. See, e.g., Claire Cohen, *Tired of being interrupted at work? Here's how to stop anyone talking over you*, TELEGRAPH, March 18, 2015, <http://www.telegraph.co.uk/women/womens-business/11479811/Work-advice-How-to-stop-anyone-interrupting-you-in-meetings.html>; Connie Dieken, *Enough. Stop Interrupting Me!*, HUFFINGTON POST, Dec. 16, 2012, http://www.huffingtonpost.com/connie-dieken/enough-stop-interrupting-_b_1968857.html.

⁹⁰ Don Zimmerman & Candace West, *Sex Roles, Interruptions and Silences in Conversations*, in LANG. AND SEX: DIFFERENCE AND DOMINANCE 123 (1975).

⁹¹ Julia Goldberg, *Interrupting the Discourse on Interruptions: An Analysis in Terms of Relationally Neutral, Power and Rapport Oriented Acts*, 14 J. PRAGMATICS 6 (1990).

interruptions.⁹² Even though interruptions occur quite often in both social and professional settings, and there is substantial research examining the roles of gender and power in interruptions, there has been little investigation into the relationship between gender and interrupting amongst some of the most powerful individuals in the world—Justices on the United States Supreme Court.

1. *Empirical Evidence of the Gender of Interruptions*

Regardless of the context—group,⁹³ one-on-one,⁹⁴ professional,⁹⁵ or social⁹⁶—gender has repeatedly been found to impact the behavioral act of interrupting. Dating as far back as the early 1970s, the majority of the behavioral research on gender and interruptions indicates that men interrupt women more often than women interrupt men.⁹⁷ In 1975, Don Zimmerman and Candace West studied public conversations between mixed-gendered groups and found that men were responsible for 46 of 48 interruptions.⁹⁸ In 2014, Adrienne Hancock and Benjamin Rubin found that females are interrupted at a higher rate than their male counterparts.⁹⁹ Hancock and Rubin monitored forty trained male and female communication partners in a controlled setting and observed eighty three-minute conversations among participants while transcribing and coding various behaviors such as interruptions, hedging, self-references, and justifiers.¹⁰⁰ Interestingly, the speaker's gender did not produce significant changes in language, but when a participant was speaking with a woman, he or she was more likely to interrupt the listener than when the same person was speaking to a man.¹⁰¹ This finding was consistent for both male and female interrupters: both genders interrupt women more than men.

In another 2014 study, Kiernan Snyder observed similar behaviors between men and women in a professional setting—a tech company.¹⁰² Over a four-week period, Snyder observed and tallied interruptions during business meetings that ranged from 4 to 15 participants, with the typical gender breakdown being 60% male and 40% female.¹⁰³ Snyder noted 314 interruptions over 900 minutes of conversations, and found that men interrupt more often than women (212 to 102 interruptions). Men were nearly three times as likely to interrupt women as they were to interrupt other men.

⁹² See generally Zimmerman & West, *supra* note 90; see also Lynn Smith-Lovin & Charles Brody, *Interruptions in Group Discussions: The Effect of Gender and Group Composition*, 54 AM. SOC. REV. 3 (1989); Goldberg, *supra* note 91.

⁹³ Leonard Karakowsky & Kenneth McBey, *Gender, Perceived Competence, and Power Displays: Examining Verbal Interruptions in a Group Context*, 35 SMALL GROUP RES. 4 (2004).

⁹⁴ Zimmerman & West, *supra* note 90.

⁹⁵ Lyn Kathlene, *Power and Influence in State Legislative Policymaking: The Interaction of Gender and Position in Committee Hearing Debates*, 88 AM. POL. SCI. REV. 3 (1994); see also Kieran Snyder, *How to Get Ahead as a Woman in Tech: Interrupt Men*, SLATE, July 23, 2014, http://www.slate.com/blogs/lexicon_valley/2014/07/23/study_men_interrupt_women_more_in_tech_workplaces_but_high_ranking_women.html.

⁹⁶ Adrienne B. Hancock & Benjamin A. Rubin, *Influence of Communication Partner's Gender on Language*, 34 J. LANG. SOC. PSYCHOL. 46 (2014).

⁹⁷ Zimmerman & West, *supra* note 90; Smith-Lovin & Brody, *supra* note 92; Goldberg, *supra* note 91; Kathlene, *supra* note 95; Hancock & Benjamin, *supra* note 96.

⁹⁸ Zimmerman & West, *supra* note 90, at 115–16.

⁹⁹ Hancock & Benjamin, *supra* note 96, at 56.

¹⁰⁰ *Id.* at 51–52.

¹⁰¹ *Id.* at 56.

¹⁰² Snyder, *supra* note 95.

¹⁰³ *Id.*

Women were also far more likely to interrupt other women than they were to interrupt men.¹⁰⁴ This last point includes a striking number: 89 of the 102 interruptions by women were of other women; only 13 of the 314 total interruptions were women interrupting men.¹⁰⁵ Thus, as Snyder points out, “That is less than once per hour, in a climate where interruptions occur an average once every two minutes and fifty-one seconds.”¹⁰⁶ Across research methods and environments, the findings remain consistent: women are interrupted more than men.

2. *The Effect of Power on Gender in Interruptions*

Several researchers have expanded on the existing literature on gender and interruptions to examine the impact of power on these occurrences. In addition to finding that men interrupt more than women, Zimmerman & West found that “males assert an asymmetrical right to control topics and do so without evident repercussions.”¹⁰⁷ They further observed that “men deny equal status to women as conversational partners with respect to rights to the full utilization of their turns.”¹⁰⁸ Zimmerman & West speculated that interruptions at the interpersonal level served as a microcosm for gender-power relations in society at large.¹⁰⁹

Other research has introduced alternative explanations for this phenomenon. According to Janet Ainsworth, there is a fundamental difference between women’s and men’s speech.¹¹⁰ “Women’s speech” is indirect and polite, while men’s speech is more assertive and direct.¹¹¹ The direct, assertive male language takes the form of imperative sentences, contrasting to women’s declarative or interrogatory form; men’s language uses direct, as opposed to conditional, verb usage; and it lacks indicators of hyper-politeness, such as “please,” “excuse me,” “okay,” and “thank you.”¹¹² On this explanation, interruptions are gendered at least in part because all of language is gendered. Men assert themselves more linguistically, because they “need not fear giving offense Women’s language developed as a way of surviving and even flourishing without control over economic, physical, or social reality.”¹¹³

This logic as applied to interruptions—that men interrupt more because men are more masculine and interruptions are more masculine—is consistent with subsequent research finding that the assertive act of interrupting is considered more masculine in general.¹¹⁴ But this begs the question of why certain actions are considered masculine and others feminine. William O’Bart & Bowman Atkins connect Ainsworth “women’s speech” construct to the Zimmerman & West theory, arguing that “Women’s language is in large part the language of powerlessness, a condition

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ Zimmerman & West, *supra* note 90, at 125.

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ Janet E. Ainsworth, *In a Different Register: The Pragmatics of Powerlessness in Police Interrogation*, 103 YALE L.J. 259, 263 (1994).

¹¹¹ *Id.* at 263.

¹¹² Faye Crosby & Linda Nyquist, *The Female Register: An Empirical Study of Lakoff’s Hypotheses*, 6 LANGUAGE IN SOC’Y. 313, 314–15, 317 (1977).

¹¹³ Ainsworth, *supra* note 110, at 284; *see also* ROBIN T. LAKOFF, LANGUAGE AND WOMAN’S PLACE 206 (1975).

¹¹⁴ Larry F. Robinson & Harry T. Reis, *The Effects of Interruption, Gender, and Status on Interpersonal Perceptions*, 13 J. NONVERBAL BEHAV. 141 (1989).

that can apply to men as well as women.”¹¹⁵ It is referred to as “women’s language,” however, because of the “powerless position of many women in American society.”¹¹⁶ O’Bart and Atkins posit that power can never really be removed from an analysis of gender dynamics and thus, gender and power together influence interruptions.¹¹⁷

While both Zimmerman & West’s study and O’Bart & Atkins’ study were performed over forty years ago, their findings are supported by the more current research on interruptions, gender and power. For example, in her 1990 research study on power and interruptions, Julia Goldberg broke down the differences between various types of interruptions.¹¹⁸ Goldberg notes that there are “power-driven” interruptions—those that attempt to assert dominance—and non-power, neutral interruptions—those that are not power grabs.¹¹⁹ Regardless of the type of interruption, Goldberg maintains that interruptions do tend to indicate power dynamics, and specifically that individuals who interrupt more often are attempting to assert themselves and insert themselves into the discussion.¹²⁰ These findings suggest that interruptions, gender, and power are interrelated.

Furthermore, not only are interruptions gendered as a product of power at the individual level, but interruptions may be in part a product of group level power dynamics. Psychologist Lyn Kathlene examined transcripts of state legislative committee hearings, finding that as the proportion of women increases in a legislative body, men become more verbally aggressive with interruptions and tend to control the hearings.¹²¹ Thus not only are individual men more likely to interrupt individual women, men as a group respond to the intrusion of women as a group into their traditional domain of power by asserting their power through increased interruptions. These findings about the relationship between gender, power, and interruptions, in particular Kathlene’s results in the analogous legislative domain, create an expectation that interruptions during oral arguments are likely to be similarly gendered.

The Supreme Court provides an important context for examining this relationship. The Bench is comprised of men and women who have achieved the highest status position in their already high status profession and one of the highest levels of power in society. If female Justices are consistently interrupted more than their male counterparts in this context, it would show that gender dynamics are so powerful to persist even in the face of high levels of power achieved by women.¹²² This would raise questions about O’Bart and Atkins’ theory that women are interrupted more because of their position of relative powerlessness in society at large. On that theory, one would expect no gender disparity in the frequency of interruptions at oral argument. But if there is a gender disparity, this would add strength to Zimmerman & West’s theory that micro-level interactions between the genders are microcosms for a much larger issue—society’s apparent gender-based hierarchy—or Goldberg’s and Kathlene’s hypotheses of interruptions as an assertion of dominance

¹¹⁵ William M. O’Barr & Bowman K. Atkins, “Women’s Language” or “Powerless Language”?, in *WOMEN AND LANGUAGE IN LITERATURE AND SOCIETY* 93, 94, 102–03 (Sally McConnell-Ginet et al. eds., 1980).

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ Goldberg, *supra* note 91, at 6.

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ Kathlene, *supra* note 95, at 3.

¹²² Feldman & Gill, reach a similar conclusion—*supra* note 77, at 18 (“all of the Justices are at the very pinnacle of the legal profession, which itself represents an elite slice of the general population. For this reason, it might be surprising to see gender-based differences in speech and interruptions on the Supreme Court.”).

in an attempt to persuade. We look not only at frequency of interruption but also at response to interruptions—whether and when Justices acknowledge that they have committed to social faux pas of interrupting. If there is a difference there between men and women, that weighs against Goldberg’s and Kathlene’s persuasion hypotheses and in favor of Zimmerman & West’s theory of gender as part of a social hierarchy. Thus, this research not only presents an opportunity to explore new information about the collegial atmosphere on the Supreme Court, but also has the capacity to test the various theories within the existing literature on interruptions, power, and gender.

3. *Illustrations of Gendered Interruptions*

After reviewing the oral argument transcripts from the 1990, 2002, and 2015 Terms, we immediately noticed a behavioral pattern that could potentially be rooted in Ainsworth’s “women’s speech” theory. Not only are male Justices and advocates interrupting female Justices at higher rates, but female Justices appear to adopt an increasingly aggressive, direct style of questioning the longer they are on the Bench. It is almost as though the female Justices learn to ask questions directly so as to not be interrupted as often. For example, in the 1990 Term, a male Justice would often interrupt Justice O’Connor when she started her question with a frame, such as saying the advocate’s name or using a qualifier, as seen in *Metropolitan Washington Airports Authority v. Citizens for the Abatement of Aircraft Noise, Inc.*:¹²³

David L. Shapiro: We don’t think it can be answered in all of the hypotheticals that Justice O’Connor raises in her question, because we think that if Congress were to use this condition device as a way of putting Members of Congress into essentially executive roles in the playing out of Federal programs at the State level, that that would be a usurpation of executive authority and interference with the executive role.

Sandra Day O’Connor: Well, Mr. Shapiro --

William H. Rehnquist: --Does the Government take a position as to whether the Members of Congress who are appointed to this . . . these State, or State boards, or this board set up by the States, whether their term on the board survives their term on the committee in question?”

David L. Shapiro: No. No, it is not, Your Honor.¹²⁴

Or, seen even more clearly in *Connecticut v. Doebr*:¹²⁵

Henry S. Cohn: Your Honors, this is a facial challenge to the statute, and I say this because it was noted in the opening paragraph of Judge Pratt’s opinion for the Second Circuit and was so noted in all the papers and opinions below. It arose on summary judgment--

Sandra Day O’Connor: I’m not sure I --

William H. Rehnquist: --Mr. Cohn, what does that mean in the context of a case like this to say that it’s a facial challenge?

Henry S. Cohn: --Yes, Your Honor, the evidence before the court was limited, and therefore matters such as the effect on the debtor and the length of time it takes to obtain a hearing, the post¹²⁶

¹²³ 501 U.S. 252 (1991).

¹²⁴ Oral Argument at 10:22, *Metro. Washington*, <https://www.oyez.org/cases/1990/90-906>.

¹²⁵ 501 U.S. 1 (1991).

¹²⁶ Oral Argument at 1:03, *Doebr*, <https://www.oyez.org/cases/1990/90-143>.

O'Connor does not directly ask her question, but rather starts with a frame, a kind of throat clearing that indicates to the listener that the Justice is about to ask a meaningful question. However, it is during this framing period that she is often interrupted. Notably, 20 years after she joined the Bench, O'Connor is interrupted less frequently, and she utilizes a more direct approach, which allows her to fight through interruptions, as seen in *Kentucky Association of Health Plans, Inc. v. Miller*.¹²⁷

Sandra Day O'Connor: Have we eve --

Antonin Scalia: --Have you --

Sandra Day O'Connor: --analyzed a case that way in solving these problems?

James A. Feldman: Well, in the . . . I think the Court in the Pireno case, for . . . oh, the difference in language?¹²⁸

Here O'Connor starts with a more direct, assertive style of questioning and powers through Scalia's attempt to interrupt. In contrast, Ginsburg in the 2002 Term utilized the framing technique, and she was interrupted at a very high rate.¹²⁹ For example, in *State Farm Mutual Automobile Insurance Company v. Campbell* (2002):¹³⁰

Laurence H. Tribe: . . . Now, the Double Jeopardy Clause--

Ruth Bader Ginsburg: Mr. Tribe, I thought you answered --

John Paul Stevens: --What's the authority for that proposition?

Laurence H. Tribe: --I would . . . I just made it up.

[Laughter]¹³¹

Or, in *Dole Food Company vs. Patrickson*.¹³²

Ruth Bader Ginsburg: Mr. Paden, because--

Anthony M. Kennedy: --I have one . . . one small procedural question. Why is Dole properly before us? I want to make you feel welcome here, but--

[Laughter]

Peter R. Paden: I do, Your Honor.¹³³

Similar to O'Connor, however, Ginsburg appears to transition to a more aggressive style of questioning in the 2015 Term, and she is not interrupted nearly as frequently.¹³⁴ Notably, the more junior female Justices—Sotomayor and Kagan—appear to also utilize this less assertive questioning style and they get interrupted far more than any other Justice on the Bench. This is seen in *Fisher v. University of Texas* with Sotomayor:

Bert W. Rein: . . . What you're trying to measure is to what extent did the use of race boost over the use of the PAI on a nonracial basis.

Sonia Sotomayor: I'm sorry. I thought you said --

¹²⁷ 538 U.S. 329 (2003).

¹²⁸ Oral Argument at 51:07, *Miller*, <https://www.oyez.org/cases/2002/00-1471>.

¹²⁹ See Part IV, *infra*.

¹³⁰ 538 U.S. 408 (2003).

¹³¹ Oral Argument at 55:08, *Campbell*, <https://www.oyez.org/cases/2002/01-1289>.

¹³² 538 U.S. 468 (2003).

¹³³ Oral Argument at 22:29, *Patrickson*, <https://www.oyez.org/cases/2002/01-593>.

¹³⁴ See Parts II and III, *infra*.

John G. Roberts, Jr.: But in *Parents -- in Parents Involved*, you indicated that at some point the actual benefit of the program turns out to be not really worth the very difficult decision to allow race to be considered if at the end of the day it generates a certain number. And I'm trying to figure out what that number is.

Bert W. Rein: And -- and I am saying that, as we said in our briefs, and we tried to -- there's no perfect measurement because you don't have them running simultaneously.¹³⁵

Kagan suffers the same fate, as seen in *Kansas v. Carr*.¹³⁶

Rachel P. Kovner: . . . And that's equally true at sentencing.

Elena Kagan: Sorry, but I'm not --

Antonin Scalia: You -- you would need two -- two separate juries, wouldn't you?

Rachel P. Kovner: That's -- that's what the Kansas Supreme Court said here.¹³⁷

Both Sotomayor and Kagan start with "sorry," which are examples of Ainsworth's "women's speech." O'Connor and Ginsburg appear to have transitioned, or changed, their ways of asking questions so as to not be interrupted as much. There are numerous examples of Kagan and Sotomayor framing their questions by asking if they may interrupt the advocate, only to get interrupted themselves as seen in *Fisher v. University of Texas*,

Sonia Sotomayor: May I ask --

John G. Roberts, Jr.: Could you associate a number with "the very small?" I guess it would be the number of students who were admitted with the consideration of race who were not also --

Bert W. Rein: Correct.¹³⁸

Kagan and Sotomayor often frame their questions with a question, such as "may I ask," or "could I ask," rather than just asking the question. This indirectness is exactly what Ainsworth was referring to when she described "women's speech" as more polite. These framing words provide the opportunity for an interruption to occur before the Justice even gets to the heart of the question. There is evidence, however, that the style of questioning is not the *cause* of the interruptions but just one means of *opportunity*, because the interruption does not always occur within the first few words, as seen here in *Dollar General Corporation v. Mississippi Band of Choctaw Indians*.¹³⁹

Sonia Sotomayor: Mr. Kneeder, I don't know that you've answered -- I'm going to assume everything you said and accept it. I think it was very clear from the committee report here, every word you've said, and some of us do believe that since a bill is sent with the committee report and Congress is voting on both, if a member hasn't read it, they've abused their official responsibility.

Antonin Scalia: Does Congress vote on the committee report, Mr. Kneeder?

¹³⁵ Fisher Argument, *supra* note 19, at 24:42.

¹³⁶ 136 S. Ct. 633 (2016).

¹³⁷ Oral Argument at 23:26, *Carr*, <https://www.oyez.org/cases/2015/14-449>.

¹³⁸ Fisher Argument, *supra* note 19, at 23:15.

¹³⁹ 136 S. Ct. 2159 (2016).

Edwin S. Kneeder: Sometimes.¹⁴⁰

Here, Sotomayor is setting up her question, albeit indirectly, and Scalia interrupts before she can finish and form her question.

Additionally, women are interrupted even when they begin their question more directly, as seen here in *Roell v. Withrow*.¹⁴¹

Lisa R. Eskow: . . . You also had in this instance a district judge who referred the case to the magistrate before the defendants had even been served, much less had an opportunity to consent, and the magistrate judge did not comply with local practice of confirming on the record all parties' consent--

Ruth Bader Ginsburg: But she was . . . she --

William H. Rehnquist --Well, can . . . can local rules in one district produce a different result than another district which didn't have that local review with respect to this sort of consent?

Lisa R. Eskow: Absolutely not, Mr. Chief Justice.¹⁴²

Ginsburg attempted to dive right into her question, but Rehnquist still cut her off mid-question. Therefore, this pattern of the men interrupting the women may have less to do with "women's speech," and more to do with the interruptees being women. Nonetheless, we expect that both effects may be operative, and women can at least reduce interruptions—albeit not reduce them down to the level at which men are interrupted—by changing the language to avoid this kind of framing.

Of course, there are examples of women interrupting men as seen in *Franchise Tax Board of California v. Hyatt*.¹⁴³

Samuel A. Alito, Jr.: If this --

Ruth Bader Ginsburg: What is your first reason for saying keep -- keep Nevada?

H. Bartow Farr, III: The first reason, Justice Ginsburg, is that Nevada v. Hall recognized, in a way that the Board never does, that there are two sovereign interests at stake here.¹⁴⁴

Ginsburg interrupts Alito before he can finish his question and the advocate addresses her question rather than Alito's. Our data shows, however, that this occurrence is rare compared to the reverse. Additionally, there are examples of men interrupting men and women interrupting women, though both happen far less frequently than men interrupting women.

Furthermore, as addressed in the Introduction, advocates interrupt female Justices at a higher rate than they interrupt the male Justices. A clear example of this is in *Fisher v. University of Texas* where advocate Bert Rein has an extensive argument with Sotomayor, in which he interrupts her repeatedly:

Sonia Sotomayor: I -- I -- I -- what you're saying, basically, is, is this is what the Fifth Circuit concluded and which the school basically agrees, okay? If you

¹⁴⁰ Oral Argument at 50:25, *Dollar Gen.*, <https://www.oyez.org/cases/2015/13-1496>.

¹⁴¹ 538 U.S. 580 (2003).

¹⁴² Oral Argument at 4:48, *Roell*, <https://www.oyez.org/cases/2002/02-69>.

¹⁴³ 136 S. Ct. 1277 (2016).

¹⁴⁴ Oral Argument at 29:41, *Hyatt*, <https://www.oyez.org/cases/2015/14-1175>.

don't consider race, then holistic percentage, whatever it is, is going to be virtually all white.

Bert W. Rein: And that is incorrect.

Sonia Sotomayor: All white.

Bert W. Rein: And that is an assumption --

Sonia Sotomayor: And to say -- no --

Bert W. Rein: --that has no basis in this record.

Sonia Sotomayor: Oh, but there is --

Bert W. Rein: It's a stereotypical --

Sonia Sotomayor: No, it's not --

Bert W. Rein: -- assumption. That is what it is.

Sonia Sotomayor: It's not, because the reality --

Bert W. Rein: With all deference --

Sonia Sotomayor: -- that Justice --

John G. Roberts, Jr.: Mr. Rein --

Sonia Sotomayor: -- Alito wants to rely on. Let me finish my point. He's right. For their educational needs, there are competing criteria.¹⁴⁵

Though a different Chief Justice, when comparing this interaction between the advocate and female Justice to the interaction with Solicitor General Verrilli and Scalia where Rehnquist intervened, the difference is stark. Here, Rein continues to speak over Sotomayor without any refereeing by Roberts. Granted, Roberts does say "Mr. Rein" at the end of the argument, but we are not entirely sure what Roberts was actually going to say there because Sotomayor says "Let me finish my point."

The interruptions between advocate and female Justices are not always as lengthy, as seen in *Dollar General Corporation v. Mississippi Band of Choctaw Indians*:

Ruth Bader Ginsburg: Can you give me an example of --

Thomas C. Goldstein: I can give you several, Justice Ginsburg.¹⁴⁶

This is a classic example of a male advocate interrupting a female Justice because he presumes that he knows where the female Justice is going with her question, a form of mansplaining. Of course, we may expect these types of interruptions due to the fight against running out of time, but again, this not only cuts against the Court's guidelines, but if that was the explanation, we would not expect any difference between the rate at which advocates interrupt male versus female Justices.

There are also examples where the advocate interrupts a female Justice, and then a male Justice interrupts the advocate with his own question. This is an example of a more indirect interruption, but an interruption nonetheless. This occurrence is clearly seen in *Betterman v. Montana*.¹⁴⁷

Dale Schowengerdt: . . . So applying Barker, courts have done it, applied it --

Sonia Sotomayor: Sorry, that was a forfeiture case.

Dale Schowengerdt: Correct.

Sonia Sotomayor: And that's a penalty after adjudication. The forfeiture doesn't

¹⁴⁵ Fisher Argument, *supra* note 19, at 1:31:40.

¹⁴⁶ *Dollar Gen. Argument*, *supra* note 140, at 1:26.

¹⁴⁷ 136 S. Ct. 1609 (2016).

start until someone has been found --

Dale Schowengerdt: I think it was a -- I'm sorry, it was a pre -- basically, property was taken before --

Stephen G. Breyer: Whatever the case is, I'd like to get an answer to my question.

Dale Schowengerdt: Sure.¹⁴⁸

There are three things to note here. First, Sotomayor is interrupted, as she does not get to finish her question. Second, Breyer does not directly interrupt Sotomayor, but he does dismiss the entire discussion between Sotomayor and counselor Schowengerdt by forcefully interrupting Schowengerdt with a demand to answer his question. Third, Schowengerdt interrupted Sotomayor and recognized that he did so, but still continued to answer. This is evidenced by the fact that he interrupts, then says "I'm sorry" and continues with his answer. Interrupting and recognizing the interruption, yet continuing, belies the argument that the interrupter may not even know he is interrupting because it happened simultaneously. This argument is easily dismissed by the plethora of examples where a male Justice interrupts a female Justice, recognizes it, and continues with his question. This is seen in *Heffernan v. City of Paterson, NJ*.¹⁴⁹

Elena Kagan: See, I --

Anthony M. Kennedy: The -- the government has -- excuse me.

Anthony M. Kennedy: The -- the -- the government has a right to compel him to declare one way or the other?¹⁵⁰

Similar to counselor Schowengerdt in the previous example, Kennedy clearly recognized that he interrupted Kagan because he says "excuse me." But, instead of allowing Kagan to finish her thought or question, Kennedy continued with his question. As noted above, this type of interruption demonstrates that, even when the interrupter knows that he is interrupting, the interruptee still does not get to ask her question.

These examples illustrate that women on the Bench are frequently interrupted by both male Justices and male advocates. These are only a few examples of the many times in which they are interrupted; our empirical analysis shows that these illustrations are not outliers and there is a distinct pattern of gendered interruptions. As we examine in the sections below, however, there may be factors other than gender that cause these interruptions.

D. Ideology at Oral Argument

There is an extensive literature demonstrating the significance of ideology in judicial decision-making at the Supreme Court.¹⁵¹ Ideology typically refers to "an overarching framework of beliefs, with sufficient consistency among constituent belief elements that knowledge of an individual's ideology allows for prediction of their views in various related topics."¹⁵² One

¹⁴⁸ Oral Argument at 35:40, *Betterman*, <https://www.oyez.org/cases/2015/14-1457>.

¹⁴⁹ 136 S. Ct. 1412 (2016).

¹⁵⁰ Oral Argument at 31:47, *Heffernan*, <https://www.oyez.org/cases/2015/14-1280>.

¹⁵¹ Founding works include, C. HERMAN PRITCHETT, *THE ROOSEVELT COURT: A STUDY IN JUDICIAL POLITICS AND VALUES, 1937-1947* (1948); Glendon Schubert, *The Study of Judicial Decision-Making as an Aspect of Political Behavior*, 52 AM. POLI. SCI. REV. 1007 (1958). For more modern applications, see, e.g., Lawrence Baum, *THE PUZZLE OF JUDICIAL BEHAVIOR* (1997); SEGAL & SPAETH, *supra* note 40; see also Daniel R. Pinello, *Linking Party to Judicial Ideology in American Courts: A Meta-Analysis*, 20 JUST. SYS. J. 219 (1999) (providing an overview of various empirical legal studies).

¹⁵² Matthew Sag, Tonja Jacobi, & Maxim Sytch, *Ideology and Exceptionalism in Intellectual Property—An Empirical Study*, 97 CAL. L. REV. 801, 804 (2009).

foundational study by Segal and Spaeth showed a correlation of 0.76 between Justices' "ideological values," as measured by newspaper editorials at the time of the Justices' confirmation votes, and their proportion of liberal votes.¹⁵³ They showed that ideology correctly classifies 77% of the Court's search and seizure decisions from the 1962 to the 1998 Terms.¹⁵⁴ The effect of ideology in Supreme Court decisions has been demonstrated across a number of issue areas including the death penalty,¹⁵⁵ freedom of speech,¹⁵⁶ search and seizure,¹⁵⁷ federalism,¹⁵⁸ intellectual property,¹⁵⁹ and administrative law.¹⁶⁰ The effect of ideology has also been demonstrated in the Federal Courts of Appeal in areas as diverse as environmental regulation, administrative law, corporate law, campaign finance law, affirmative action and discrimination law.¹⁶¹

Furthermore, the effect of ideology has been shown to influence judicial behavior beyond outcome votes. Scholars have shown that when deciding whether to grant certiorari, Justices "defensively deny" cert to cases if they expect the side they support to lose on the merits, and they vote to hear cases more frequently in which their preferred litigant or outcome ultimately wins.¹⁶² The Justices have also been shown to choose cases that maximize the proportion of total decisions made by the lower courts favorable to their policy preferences.¹⁶³ And not content to simply respond to the cases that are presented to them, Justices send signals about the kind of questions they wish to decide.¹⁶⁴ Justices also bargain with each other during the opinion writing process.¹⁶⁵

All of these findings raise the expectation that ideology is also an important predictor of behavior at oral arguments, since oral arguments are a prelude to the decision-making process. In contrast to all of these other areas of judicial behavior, however, few scholars have studied the effect of ideology on interruptions. One important exception are political scientists Johnson, Wahlbeck, & Spriggs, who found that Justices with opposite ideological positions more frequently interrupt each other.¹⁶⁶ The Johnson et al. study concerned the effect of oral arguments quality on Justices' final

¹⁵³JEFFREY A. SEGAL & HAROLD J. SPAETH, *THE SUPREME COURT AND THE ATTITUDINAL MODEL* 323 (1993).

¹⁵⁴ *Id.* at 314–20.

¹⁵⁵ Tracey E. George & Lee Epstein, *On the Nature of Supreme Court Decisionmaking*, 86 AM. POL. SCI. REV. 323 (1992).

¹⁵⁶ Lee Epstein & Jeffrey A. Segal, *Trumping the First Amendment?*, 21 WASH. U. J.L. & POL'Y 81, 85 (2006).

¹⁵⁷ SEGAL & SPAETH, *supra* note 40, at 316–20.

¹⁵⁸ Frank B. Cross & Emerson H. Tiller, *The Three Faces of Federalism: An Empirical Assessment of Supreme Court Federalism Jurisprudence*, 73 S. CAL. L. REV. 741 (2000).

¹⁵⁹ Sag et al, *supra* note 152.

¹⁶⁰ Donald Crowley, *Judicial Review of Administrative Agencies: Does the Type of Agency Matter?*, 400 WESTERN POL. Q. 265, 276 (1987).

¹⁶¹ Richard Reversz, *Environmental Regulations, Ideology and the DC Circuit*, 83 VA. L. REV. 1717 (1997) Frank B. Cross & Emerson H. Tiller, *Judicial Partisanship and Obedience to Legal Doctrine: Whistleblowing on the Federal Courts of Appeals*, 107 YALE L.J. 2155 (1998).

¹⁶² See Robert L. Boucher & Jeffrey A. Segal, *Supreme Court Justices as Strategic Decision Makers: Aggressive Grants and Defensive Denials on the Vinson Court*, 57 J. POL. 824, 832 (1995); Gregory A. Caldeira, John R. Wright, & Christopher J.W. Zorn, *Sophisticated Voting and Gate-keeping in the Supreme Court*, 15 J.L. & ECON 549 (1999).

¹⁶³ Glendon Schubert, *Policy Without Law: An Extension of the Certiorari Game*, 14 STAN. L. REV. 284 (1962).

¹⁶⁴ H. W. PERRY, *DECIDING TO DECIDE: AGENDA SETTING IN THE UNITED STATES SUPREME COURT* 170–92 (1991) (providing interviews with numerous Justices who describe using dissents from denial of cert. as a method of persuading fellow Justices to hear a case); Vanessa A. Baird and Tonja Jacobi, *Judicial Agenda Setting through Signaling and Strategic Litigant Responses*, 29 J. LAW & POL'Y 215 (2009) (summarizing the empirical signaling literature).

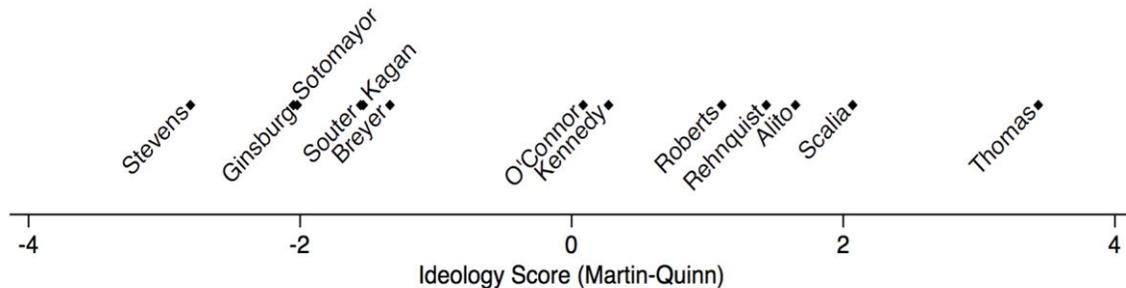
¹⁶⁵ LEE EPSTEIN & JACK KNIGHT, *THE CHOICES JUSTICES MAKE* (1998).

¹⁶⁶ Johnson et al., *supra* note 23.

votes, and they found a significant effect,¹⁶⁷ but the advocate effect was matched by the effect of ideology: a movement in ideology from one standard deviation below to one standard deviation above the mean altered the probability of a Justice voting to reverse from .396 to .763.¹⁶⁸

Given all this prior scholarship pointing to the effect of ideology, including at oral arguments, we expect that ideology will be a strong determinant of interruption behavior. To measure this, we use Martin–Quinn scores, the most commonly used index of judicial ideology.¹⁶⁹ Martin and Quinn use every vote cast by every Justice to estimate dynamic ideal points of the Justices—that is, a point score for each Justice that best represents his or her overall preferences, based on voting patterns, that can potentially change each year. The scores are a product of the patterns of the voting coalitions of the Justices: a Justice who is often a lone dissenter in conservative cases will be ranked as more liberal than a colleague who sometimes joins her in dissent in 7-2 conservative decisions but at other times joins the conservative opinion. That Justice, in turn, is considered more liberal than a Justice who dissents primarily in 6-3 conservative cases, and so on. So another way of saying that Justice Thomas is the most conservative Justice on the Court is to say that he is the Justice who is least likely to join a liberal majority.¹⁷⁰ This allows the Justices to be mapped on a line that is generally interpreted to be a left-right, liberal-conservative scale. The zero point is the approximate historical mean of the Court,¹⁷¹ and with negative numbers translating to liberalism and positive numbers translating to conservatism. The Martin–Quinn scores look a lot like common impressions of the Justices on a liberal-conservative scale, as shown in Table 2:

Table 2: Martin–Quinn scores for the Supreme Court, 2004–2015, averaged



This measure is better than using the party of appointing President,¹⁷² especially given that there are multiple significant disappointments for presidents in our data, including Justices Stevens, Souter, and Blackmun. We expect ideology measured in this way to be a significant factor affecting interruptions at oral arguments. However, the effect could be more nuanced than simply ideology being a determinant, for a number of reasons.

¹⁶⁷ *Id.* at 109.

¹⁶⁸ *Id.* at 111.

¹⁶⁹ Andrew D. Martin & Kevin M. Quinn, *Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953-1999*, 10 POL. ANAL. 134 (data <http://mqscores.berkeley.edu/measures.php>)(updated annually).

¹⁷⁰ Importantly, Martin–Quinn scores use a constant scale over time, which allows comparison of Justices who did not serve together.

¹⁷¹ To be exact, historically, the average of the Court is -0.06, and the standard deviation is 2.14.

¹⁷² See Sag et al. *supra* note 152 (finding that Martin–Quinn scores are consistent with, but more informative than, using the party of the President who appointed the Justice).

First, the relative ideological positions of the Justices could be an important factor also. It is now common in the legal literature to focus on the “Court median” or the “swing Justice,”¹⁷³ because the Justice who lies in the middle of the Court is essential to securing a majority.¹⁷⁴ In the context of the Roberts Court, that is usually taken to mean that the outcome favored by Justice Kennedy will determine the Court’s decision in most cases.¹⁷⁵ Accordingly, we are interested in whether in addition to a general ideological effect, the ideologically moderate Justices in particular receive greater deference by being interrupted less due to their positional power.

Second, scholars have long debated how the effect of ideology and law play off against each other in determining judicial votes.¹⁷⁶ The Justices regularly insist that legal methodology is vitally important to the decision-making process,¹⁷⁷ as do judges on other courts,¹⁷⁸ and scholars.¹⁷⁹ One of us has elsewhere shown that a second significant dimension cuts across the left-right continuum, at times pulling the Justices in two different directions and creating coalitions that regularly cross the usual liberal-conservative lines.¹⁸⁰ Fischman & Jacobi show that while measures of the Justices in one dimension, such as Martin–Quinn scores, are incredibly useful, more information can be gleaned from measuring the Justices in two dimensions. Their results for the second natural Roberts Court are presented in Figure 1.¹⁸¹

¹⁷³ See, e.g., Jack M. Balkin & Sanford Levinson, *The Process of Constitutional Change: From Partisan Entrenchment to the National Surveillance State*, 75 FORDHAM L. REV. 489, 501 (2006) (“[T]he median Justice in a multimember Court, simply because he or she is the median, tends to push the Court’s work back to the center.”); Roderick M. Hills, Jr., *The Individual Right to Federalism in the Rehnquist Court*, 74 GEO. WASH. L. REV. 888, 897 (2006) (noting “the decisive influence for the median Justice” in federalism cases).

¹⁷⁴ *Super Medians*, *supra* note 33, at 77 (empirical establishing the overall greater power of median Justices).

¹⁷⁵ See e.g. Robert Barnes, *Justices Weigh Courts’ Role in Detainee Cases*, WASH. POST, Dec. 5, 2007, at A20 (quoting Kathleen Sullivan referring to the briefs as love letters to Justice Kennedy).

¹⁷⁶ See the dispute between Harry T. Edwards, *Collegiality and Decision Making on the D.C. Circuit*, 84 V.A. L. REV. 1335 (1998), and Revesz, *supra* note 161; see also Perry, *supra* note 164 (reporting interviews wherein judges describe using a mixture of legal and pragmatic analysis).

¹⁷⁷ Judges regularly profess to be influenced by judicial methodology, including textualism, formalism, purposivism, consequentialism, minimalism, and concerns for judicial role. See, e.g., STEPHEN BREYER, ACTIVE LIBERTY: INTERPRETING OUR DEMOCRATIC CONSTITUTION 7–8 (2005); WILLIAM H. REHNQUIST, THE SUPREME COURT 49–50, 200, 273, 279 (new ed. 2001); Antonin Scalia, *Originalism: The Lesser Evil*, 57 U. Cin. L. Rev. 849, 862 (1989). Justice Kagan recently claimed that “disagreements among the Justices are not a matter of political ideology, but rather different methods of interpreting the Constitution.”—James E. Rogers College of Law, *Supreme Court Justice Kagan On Remembering Justice Scalia, Political Pressures, and Texting (or Not) Among the Justices* (Sep. 2, 2016), <https://law.arizona.edu/supreme-court-kagan-scalia-university-arizona-law-lecture>.

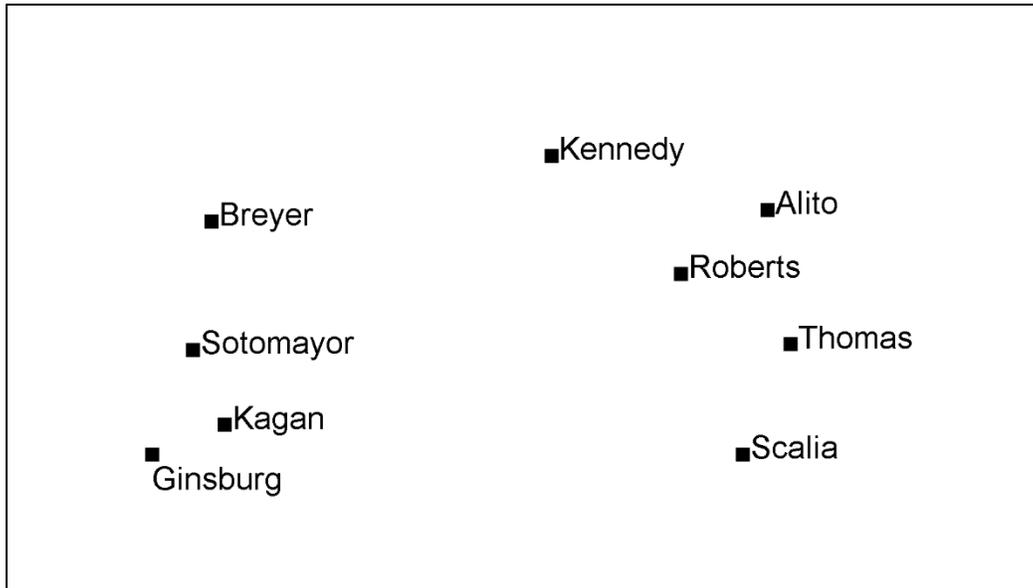
¹⁷⁸ See, e.g., Richard A. Posner, *What Do Judges and Justices Maximize? (The Same Thing Everybody Else Does)*, 3 SUP. CT. ECON. REV. 1, 40 (1993) (suggesting that precedent is important for judges, largely as a mechanism for maximizing efficiency); Edwards, *supra* note 176.

¹⁷⁹ See PHILIP BOBBITT, CONSTITUTIONAL INTERPRETATION (1991); PHILIP BOBBITT, CONSTITUTIONAL FATE (1982).

¹⁸⁰ Joshua Fischman & Tonja Jacobi, *The Second Dimension of the Supreme Court*, 57 WILLIAM & MARY L. REV. 1671 (2016); see also Pablo Spiller & Emerson Tiller, *Invitations to Override: Congressional Reversals of Supreme Court Decisions*, 16 INT’L REV. L. & ECON. (1996).

¹⁸¹ Their results for the first Roberts Court, 2005–2008, are in the Appendix, Figure A1.

Figure 1: Roberts Court in two dimensions, 2010-2012



Source: Fischman and Jacobi, 2016.

Fischman & Jacobi do not prove that the second dimension is judicial methodology, for there is no equivalent test of the effect of law as there is for ideology.¹⁸² But while what the second dimension is constituted by is a matter of interpretation, the existence of a meaningful second dimension is an empirical fact, as is the relative positioning of the Justices. Considered in two dimensions, Breyer and Scalia are not only ideological opposites, but are also divided in the second dimension, and the same is true for Ginsburg and Alito. Thus, we are interested to see not only whether ideology matters at oral arguments, and whether being a moderate Justice matters, but whether division on the secondary dimension might also be significant. Without a measure for the impact of law, we can look at whether interruptions occur more frequently between Justices who are disparate not only ideologically but also on the second dimension.

Third, one of the advantages of utilizing two different databases, one of the current Court and one reaching further back in time, is that we can inquire as to whether ideology on the Court looks like ideology in the political arena. There is disagreement among scholars considering judicial ideology as to whether ideological disagreements among the Justices are “political”¹⁸³ or “partisan.”¹⁸⁴ Early measurement of judicial attitudes was undertaken by political scientists, who drew on the far more developed literature on Congress,¹⁸⁵ an institution whose members’ views being shaped by partisanship is uncontroversial. But judges are meant to be independent of such

¹⁸² And some scholars have shown that federalism is also a significant secondary or tertiary dimension. See Vanessa A. Baird & Tonja Jacobi, *How the Dissent Becomes the Majority: Using Federalism to Transform Coalitions in the U.S. Supreme Court*, 59 DUKE L.J. 183 (2009) (showing that dissenting Justices use federal-state division to split substantive coalitions and craft subsequent majority coalitions in a significant number of cases).

¹⁸³ See e.g., Richard A. Posner, *Foreword: A Political Court*, 119 HARV. L. REV. 32 (2005).

¹⁸⁴ See e.g., Neal Devins & Lawrence Baum, *Split Definitive: How Party Polarization Turned the Supreme Court into a Partisan Court*, unpublished manuscript, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2432111.

¹⁸⁵ KEITH T. POOLE & HOWARD ROSENTHAL, *CONGRESS: A POLITICAL-ECONOMIC HISTORY OF ROLL CALL VOTING* 5 (1997) (showing that congressional preferences can be captured on a left-right dimension throughout most of American history).

affiliations once joining the Bench.¹⁸⁶ This leads to two lines of inquiry related to partisanship. First, if we divide the Justices into liberal and conservative camps, bimodal categories much like gender, will this be more or less informative than looking at the overall ideological distribution of the Justices? That is, is ideology categorical, and thus a lot like partisanship, or does antagonism increase with greater distance, which would suggest a potentially more outcome-focused ideological division? Second, if judicial ideology is like political partisanship, then we would expect to see the same time trends as in the political arena. In particular, the 1994 congressional election heralded the beginning of the “Republican Revolution” in Congress, which initiated the increasingly polarized political environment.¹⁸⁷ If we consider Supreme Court oral argument interruptions to be a product of that increasingly charged political environment, we might expect a dramatic difference between pre-1994 and post-1994 oral argument behavior. In contrast, others believe that the entry of Justice Scalia onto the Court began the era of increased interruptions, with some saying that he radically changed the culture of the Court, making it more adversarial and normalizing a very disruptive atmosphere.¹⁸⁸ On this theory, we should instead see a high level of interruptions before 1994, since Scalia joined the Court in 1986. Thus, our data on the 1990 Term allows us to differentiate between these variations on the ideology hypothesis, in a more interesting way than simply noting that interruptions have increased over time on the Court.

1. *Illustrations of Ideological Interruptions*

There are clear ideological divisions on the Court—even the Justices occasionally acknowledge the liberal-conservative divide on the current Court.¹⁸⁹ Our empirical analysis finds that these divisions affect the rate of interruptions to a similar extent as gender does. Not only do we see more cross-ideological interruptions than intra-ideological interruptions, but also the effect is uneven: conservatives interrupt liberals at significantly higher rates than liberals interrupt conservatives.

*Lawrence v. Texas*¹⁹⁰ provides an example of multiple interruptions occurring between two well-known ideological opposites—Justices Breyer and Scalia:

Stephen G. Breyer: You’ve not given a rational basis except to repeat the word morality.

Antonin Scalia: Is the rational basis that the State thinks it immoral just as the State thinks adultery immoral or bigamy immoral?

¹⁸⁶ *But see, e.g.*, Michael S. Kang & Joanna M. Shepherd, *The Long Shadow of Bush v. Gore: Judicial Partisanship in Election Cases*, 68 STAN. L. REV. 1411 (2016) (finding that “judges decide cases, particularly politically sensitive ones, based on their partisan loyalties” in election cases).

¹⁸⁷ *See, e.g.*, Pew Research Center, *supra* note 25 (finding that, in 2014, “Republicans and Democrats [were] more divided along ideological lines—and partisan antipathy [was] deeper and more extensive—than at any point” since the Republican Revolution).

¹⁸⁸ *See, e.g.*, Nina Totenberg, *Justice Antonin Scalia, Known For Biting Dissents, Dies At 79*, NPR, <http://www.npr.org/2016/02/13/140647230/justice-antonin-scalia-known-for-biting-dissents-dies-at-79> (“Scalia changed more than legal doctrine. When he came to the Court, the Justices asked few questions during oral argument. And Scalia, the junior Justice, jumped in, pummeling lawyers relentlessly with questions. Soon other Justices took a more active approach to questioning, so that most lawyers could get less than a sentence out of their mouths before being interrupted.”).

¹⁸⁹ For instance, Justice Breyer recently said to an advocate at oral argument “the fact that you have the questions you’ve had and both sides of the bench have had such trouble with this, to me, is strong evidence that the Court should stay out of this under normal First Amendment standards.” Oral Argument at 43:52, *Expressions Hair Design v. Schneiderman* (No. 15-1391), <https://www.oyez.org/cases/2016/15-1391>.

¹⁹⁰ 539 U.S. 558 (2003).

Stephen G. Breyer: Or teaching German.

Antonin Scalia: Well, that—

[Laughter]

William H. Rehnquist: Maybe we should go through counsel, yes.¹⁹¹

Here, Breyer and Scalia continue to talk over each other to a point where Rehnquist, as Chief Justice, has to intervene and remind them that the advocate needs to be involved. Our empirical analysis shows that interruptions between these two Justices are exceptionally high. This could be because of idiosyncratic reasons, but we think there is much more going on here than simply personal animus. There is a significant correlation between ideology and interruptions, specifically conservatives interrupting more than liberals, such as in *Archer v. Warner*.¹⁹²

John Paul Stevens: I don't understand that. Why shouldn't he—

Antonin Scalia: --You conduct this big inquiry and find out that the guy's been defrauded of \$300, and then that the settlement agreement really covers up a fraud and you say, Well, but you know, a deal's a deal.¹⁹³

Much like gender, however, it does cut both ways. There are plenty of examples where a liberal Justice interrupts a conservative Justice, as seen in *Mathis v. United States*.¹⁹⁴

John G. Roberts, Jr.: This case —

Stephen G. Breyer: I'd like to try with one -- one -- what I'm trying to do is get the essence of your argument.¹⁹⁵

Also, as with seniority and gender, there are interaction effects between our variables. When all of the factors are present, such as a more senior conservative male Justice and a less senior liberal female Justice, there is more likely to be an interruption, as seen in *Dietz v. Bouldin*.¹⁹⁶

Sonia Sotomayor: Do you think --

Anthony M. Kennedy: Would your rules --

Sonia Sotomayor: -- but you're not --

Anthony M. Kennedy: -- apply equally in a criminal case?¹⁹⁷

Thus, we do see examples of interruptions cutting both ways, especially when other factors such as seniority and gender come into play; but overall, there are far more examples of conservative Justices interrupting their liberal colleagues.

E. Seniority at Oral Argument

On a broad level, the idea of respect for seniority has been around for a very long time, as it most likely has its roots grounded in Confucius's concept of "filial piety"—respecting one's elders.¹⁹⁸

¹⁹¹ Oral Argument at 47:24, *Lawrence*, <https://www.oyez.org/cases/2002/02-102>.

¹⁹² 538 U.S. 314 (2003).

¹⁹³ Oral Argument at 20:13, *Archer*, <https://www.oyez.org/cases/2002/01-1418>.

¹⁹⁴ 136 S. Ct. 2243 (2016).

¹⁹⁵ Oral Argument at 24:12, *Mathis*, <https://www.oyez.org/cases/2015/15-6092>.

¹⁹⁶ 136 S. Ct. 1885 (2016).

¹⁹⁷ Oral Argument at 29:37, *Dietz*, <https://www.oyez.org/cases/2015/15-458>.

¹⁹⁸ See Aris Teon, *Filial Piety in Chinese Culture*, THE GREATER CHINA JOURNAL, Mar. 14, 2016, <https://china-journal.org/2016/03/14/filial-piety-in-chinese-culture/> (discussing Confucius and his concept of "filial piety").

This sentiment is still present in Western society today. Specifically, this concept has infiltrated the workplace.¹⁹⁹ Researchers Canice Prendergast and Robert Topel found that the majority of companies and law firms in the United States use seniority to determine promotions and compensation.²⁰⁰ Though, the opposite—age discrimination in the workplace—has recently become prevalent and has been the basis for many a lawsuit.²⁰¹ Furthermore, many organizations have moved away from the traditional seniority model for compensation to a performance-based model.²⁰²

While the Supreme Court certainly does not use a seniority model for compensation, seniority plays many roles on the Court. First, the Justices sit in order of seniority during oral arguments. Second, the Justices deliver their votes based on seniority at post-conference. Third, the most junior Justice has special responsibilities. These are the only formal rules based on seniority, but there also appears to be an unspoken agreement amongst the Justices that the more senior Justices are given a little more speaking time, or deference, during oral arguments. Interestingly, there is not a lot of research in this area, but Johnson et al. did find that it takes some time for the freshman Justices to become acclimated with their roles on the Supreme Court.²⁰³ This would suggest that the appearance of a nod to seniority during oral arguments is actually more passivity in the face of experience than actual deference. Additionally, other research suggests that freshman Justices may act more indecisively in their first few years on the Court, which could also lead to less questioning during oral arguments.²⁰⁴

Only one research study has looked at seniority as a factor for interruptions between the Justices during oral argument.²⁰⁵ In the unpublished research concurrent with our own, Feldman and Gill control for seniority in the form of the freshman effect when examining the impact of gender on the frequency of interruptions between the Justices.²⁰⁶ They control for seniority based on the hypothesis that Justices in their first year on the Court may be interrupted more frequently than the more senior Justices.²⁰⁷ Feldman and Gill find that, measured in this way, “seniority did not rise to a significant level of interest” because they find that freshman Justices are not interrupted at a significantly higher level than the rest of the Justices.²⁰⁸ Feldman and Gill, however, do not analyze whether the more senior Justices interrupt other Justices at a rate higher than the less senior Justices, and so cannot reach a conclusion about the effect of seniority more generally. Their conclusion relates only to the existence of the freshman effect, but that seems to us an unnecessary limit to put on the data. We are interested in whether seniority more generally affects interruption behavior.

¹⁹⁹ See Canice Prendergast & Robert H. Topel, *Favoritism in Organizations*, 104 J. POL. ECON 959, 962 (1996) (finding that organizations typically base compensation and rewards on seniority).

²⁰⁰ *Id.* at 962.

²⁰¹ See *E.E.O.C. v. Sidley Austin LLP*, 437 F.3d 695 (7th Cir. 2006) (finding Sidley Austin liable under the ADEA for forcing its older partners to retire).

²⁰² See Tarun Khana, Jaeyong Song, & Kyungmook Lee, *The Globe: The Paradox of Samsung's Rise*, HARV. BUS. REV., July-Aug. 2011, <https://hbr.org/2011/07/the-globe-the-paradox-of-samsungs-rise> (describing how many companies have moved to performance-based compensation).

²⁰³ Timothy R. Johnson, James F. Spriggs, & Paul J. Wahlbeck, *Passing and Strategic Voting on the US Supreme Court*, 39 LAW & SOCIETY REVIEW 349, 359 (2005).

²⁰⁴ Terry Bowen & John M. Scheb, *Reassessing the “Freshman Effect”: The Voting Bloc Alignment of New Justices on the United States Supreme Court, 1921-90*, 15 POLIT. BEHAV. 1 (1993) (finding no freshman effect amongst the Justices).

²⁰⁵ Feldman & Gill, *supra* note 77, at 49-50.

²⁰⁶ *Id.*

²⁰⁷ *Id.*

²⁰⁸ *Id.*

In addition, our inquiry does not look at seniority in isolation. Instead, this Article examines how gender, ideology and seniority interact to affect interruptions between the Justices. For instance, do men interrupt women more often when the men are also senior to the women, or across the board? Also, do men interrupt individual women less as those women become more senior? Feldman and Gill look only at the Roberts Court, and so are limited in their ability to look at this question. But because we use Terms dating back as far as 1990, we are able to track changes in behavior over time that affect seniority, and also affect the interaction between seniority and our other variables of interest.

1. *Examples of Seniority in Interruptions*

When looking at seniority alone, there are examples cutting both ways. Based on the respect theory, one may think that the more senior Justice is likely to interrupt the less senior Justice more often than vice versa, as seen multiple times in *McDonnell v. United States*²⁰⁹ where the less senior Justice Kagan continues to be interrupted by more senior Justices:

Elena Kagan: Mr. --

Ruth Bader Ginsburg: The word -- the word that Justice Breyer is concerned about comes from *Birdsall*, with intent to influence their “official action.”²¹⁰

Two minutes later:

Elena Kagan: Can I --

Anthony M. Kennedy: I agree with Justice Breyer.²¹¹

One minute later:

Elena Kagan: Can I ask --

John G. Roberts, Jr.: Sure -- sure. It depends on who’s making the referral or the call, right?²¹²

Here, Kagan is interrupted three times within three minutes. The transcript indicates that she never did get to ask the question she wanted to ask. This is a good example indicating that seniority may be a significant factor affecting interruptions because a liberal female, a moderate male, and a conservative male all interrupt Kagan. The only commonality between the interrupters is that each one is more senior than the interruptee. Also note, however, that Kagan starts each one of these attempts with “Mr.” or “Can I ask,” which goes back to the possibility that these polite ways to frame a question are a factor in the rate of interruptions.

But, we also frequently see a less senior Justice interrupting a more senior Justice, especially if the less senior Justice is a male, as in *Bruce v. Samuels*.²¹³

Ruth Bader Ginsburg: If -- if --

John G. Roberts, Jr.: Now, I don’t see how the Bureau of Prisons can do this as a matter of grace. I mean, the statute says what it says, “shall.” I don’t -- I don’t know why think they can do -- they may have their own views on what’s

²⁰⁹ 136 S. Ct. 2355 (2016).

²¹⁰ Oral Argument at 17:49, *McDonnell*, <https://www.oyez.org/cases/2015/15-474>.

²¹¹ *Id.* at 19:07.

²¹² *Id.* at 20:54.

²¹³ 136 S. Ct. 627 (2016).

good policy, but Congress, it seems to me, has written the statute exactly the way you say.²¹⁴

Chief Justice Roberts is less senior than Justice Ginsburg, but here we see him interrupting her. When all three of the variables are present, however, then there is a strong possibility of an interruption, such as in *Hurst v. Florida*.²¹⁵

Sonia Sotomayor: How about if a jury –

Samuel A. Alito, Jr.: So to what degree is there a -- a real dispute here about the presence of the two aggravating factors?

Allen Winsor: There is none, Justice Alito, in my view.²¹⁶

Thus, much like the factors analyzed above, the interruptions cut both ways in terms of seniority with less senior Justices interrupting more senior Justices and vice versa. This last example, however, is a classic illustration of all three factors combining to produce the most frequent type of interruption—a more senior conservative male Justice interrupting a liberal female Justice.

III. Empirical Analysis 1: The Roberts Court

In the next two Parts, we go beyond examples and use various empirical techniques to comprehensively determine the effect that gender, ideology, and seniority play in the interruption of Justices during oral argument. In this Part, we focus primarily on the Roberts Court, partly because the transcript of every oral argument from 2004 through 2015 is available on the Supreme Court’s website.²¹⁷ The Roberts Court begins with the 2005 Term; however, we also have data from the 2004 Term, which includes Justice O’Connor and Chief Justice Rehnquist. Our regression analysis of the Roberts Court data yields strong evidence for all three of our hypotheses—i.e., that interruptions are gendered, ideological, and affected, albeit to a lesser extent, by seniority. However, we show that there is a problem studying only the Roberts Court—a problem that is difficult to overcome: all of the female Justices on the Roberts Court are liberal. The ideological proximity of the three female Justices in the Roberts Court makes it hard to confidently parse between the effect of gender and the effect of ideology for that time period. We resolve this dilemma in the next Part by looking at earlier Terms, providing in-depth analysis of the 1990, 2002, and 2015 Court Terms.

A. Descriptive data

Our data for the 2004 to 2015 Terms is derived from algorithmic analysis of the transcripts of oral arguments. We validated this analysis by comparison to a hand-coded set of data for the 2015 Term. The transcripts of oral arguments in this period adhere to a set of conventions that made it fairly easy to determine which Justice or advocate was speaking and when the speaker was interrupted. Specifically, we ran a computer algorithm that searches for a ‘--’ appearing at the end of a line in which a Justice is speaking. This indicates that Justice was the ‘interruptee.’ We then examined who is listed as speaking next, and that identifies the ‘interrupter.’

²¹⁴ Oral Argument at 19:24, *Bruce*, <https://www.oyez.org/cases/2015/14-844>.

²¹⁵ 136 S. Ct. 616 (2016).

²¹⁶ Oral Argument at 50:51, *Hurst*, <https://www.oyez.org/cases/2015/14-7505>.

²¹⁷ Supreme Court of the United States, Argument Transcripts, https://www.supremecourt.gov/oral_arguments/argument_transcript.aspx.

We consider interruptions both by other Justices and by advocates. We examine the behavior of the Justices both as groups as well as individually. We do not consider the advocates individually but rather grouped by gender and ideology, due to the large number of advocates appearing before the Court. We do not consider in any detail interruptions by the Justices of the advocates.²¹⁸ This is because: first, such interruptions are part of the norms of oral argument, not a departure from those norms; and second, other scholars have examined that question previously, drawing out more relevant implications, such as how oral argument has changed over time, becoming more disrupted and less effective due to the increasing number of interruptions.²¹⁹

In order for a Justice to interrupt, he or she has to speak, so we also start by showing how many times each Justice spoke—what we call ‘speech episodes’—both in aggregate and as a proportion of cases heard, as well as the number of words each Justice speaks in aggregate. Later, we break this down in more detail. We also show how often each Justice interrupts an advocate, as this is another indication of Justice activity during the oral argument. Most importantly, Table 3 shows how often each Justice interrupts another Justice in the 2004 to 2015 period.

Table 3: Justices’ speaking and interruption behavior, 2004 – 2015

Speaker	<i>Cases</i>		<i>Per Term</i>		<i>Interruptions</i>	
	Heard	Spoke In (%)	Speeches	Words	Other Justice	Advocates
Alito	854	80.2	591	25599	93	273
Breyer	971	85.8	1392	70829	218	1014
Ginsburg	973	89.0	998	40376	109	663
Kagan	430	90.7	911	45737	134	268
Kennedy	973	86.5	879	28562	95	554
O'Connor	119	87.4	571	12649	3	70
Rehnquist	91	28.6	351	8345	0	8
Roberts	881	89.4	1661	55645	95	710
Scalia	972	85.6	1710	52653	187	1145
Sotomayor	524	94.7	1516	49442	143	942
Souter	448	78.3	1097	47879	62	209
Stevens	544	75.6	890	25075	28	212
Thomas	973	0.4	2	60	0	0

Table 3 demonstrates the enormous variation in judicial behavior at oral arguments. Most obviously, Justice Thomas is low on every element except the number of cases heard. He spoke in a minuscule 0.4% of cases, speaking an average of a mere 60 words in each Term. In contrast, anybody who listens regularly to Supreme Court oral arguments knows that Justice Breyer is unusually loquacious, speaking for a long time in any speech episode. Table 3 shows that, at 70,000

²¹⁸ The overall numbers of the Justices’ interruptions of advocates is shown *infra* Table 2.

²¹⁹ See particularly, Sullivan & Canty, *supra* note 24.

words spoken per Term, he is 15,000 ahead of his next most voluble colleague, Chief Justice Roberts. In terms of consistency of participation, Justice Sotomayor takes the lead, followed by Justice Kagan, both speaking in over 90% of cases, followed by Chief Justice Roberts and Justice Ginsburg, both at 89%. Looking simply in terms of volubility, then, there does not appear to be any gender, ideology, or seniority effect.

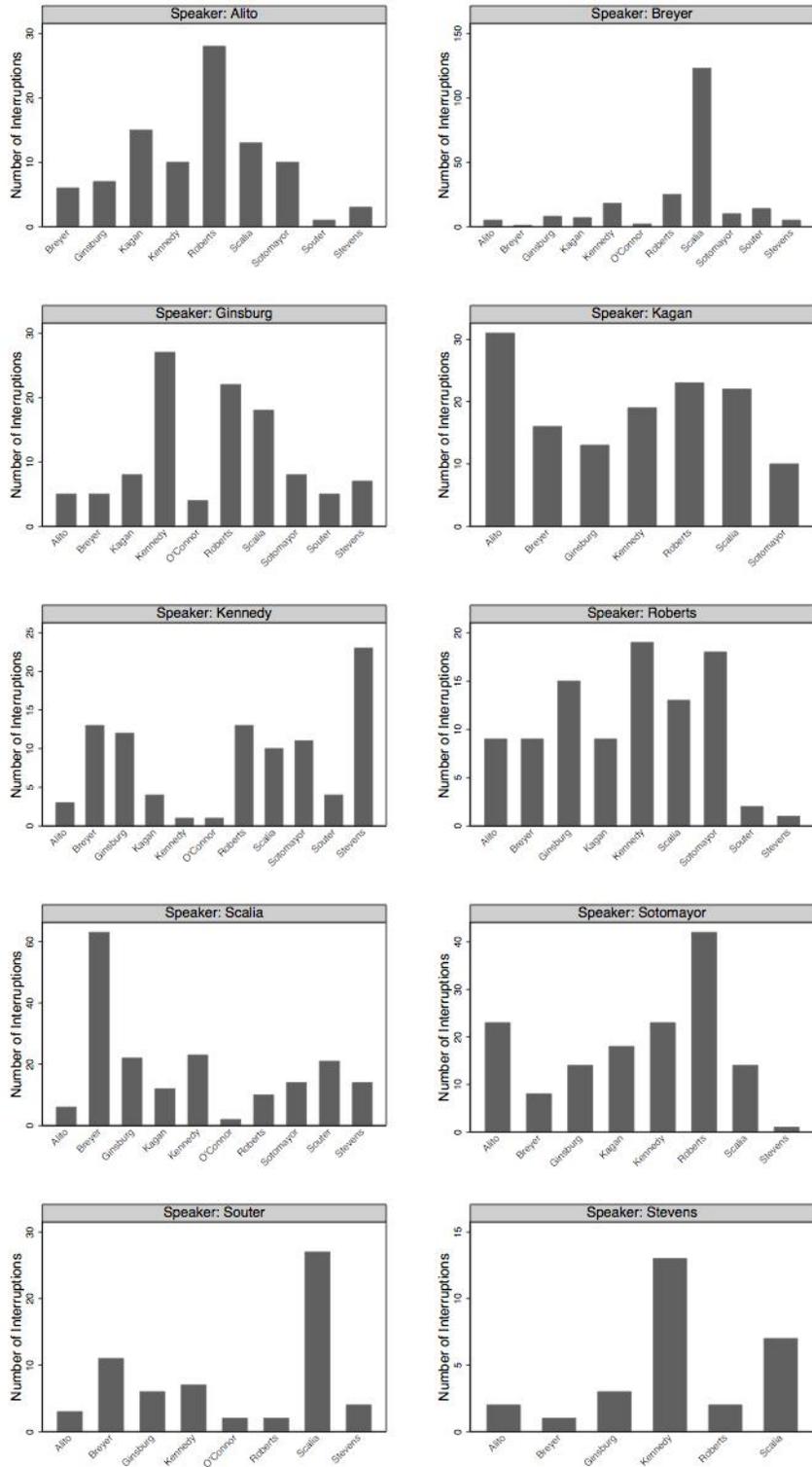
We considered the notion that any gender effect could be a product of women talking more than men. This is a common trope, but is neither true in general,²²⁰ nor when it comes to Supreme Court Justices, as shown in Table 3.

Note that the interruptions listed in Table 3, including the most important variable, interruptions of other Justices, are presented here in raw numbers—they are not yet adjusted in any way, such as by controlling for a Justice’s number of appearances, etc., and so conclusions drawn can only be very preliminary. With that caveat in mind, we once again see huge variation, with Justices Breyer and Scalia ranking as the most disruptive of the Justices in aggregate, each with over 200 interruptions; then, interestingly, Ginsburg, Sotomayor, and Kagan were the only other Justices to reach triple figures. There are similar patterns in terms of Justices interrupting advocates—again, Scalia and Breyer hold the lead, with over 1,000 interruptions apiece, followed by Ginsburg and Sotomayor, both with advocate interruptions in the high three digits, but now joined by Kennedy and Roberts; Kagan is much lower on this scale. But this initial impression is misleading: when we look at the data in more detail, we see a different picture emerge.

Table 4 and Figure 2 break down interruptions by showing who is interrupting whom, and provide rates of being interrupted, by Justice.

²²⁰ LINDA THOMAS & SHÂN WAREING, LANGUAGE, SOCIETY AND POWER: AN INTRODUCTION 68 (1999) (finding that men and boys “talk more in mixed-sex groups than women”).

Figure 2: Bar plot by Justice pairs



The first thing to notice about Figure 2 is that the scale of each Justice's frequency of being interrupted by each other Justice varies for each subplot. The reason for this is that, when the Justices are all scaled at the same level, the diagrams become essentially unreadable because Scalia interrupted Breyer at such an extraordinary rate as to dwarf all other interruptions.²²¹

The Scalia–Breyer interaction is unusual. As seen in Table 4, Scalia interrupted Breyer twice as often as Breyer interrupted Scalia (123 and 63 times, respectively), and that figure in turn is twice as high as any other Justice interrupting any other Justice. So Scalia interrupted Breyer four times as often as any other Justice was interrupted. Scalia's interruptions account for over half of the number of times Breyer was interrupted (56%), and Breyer's interruptions of Scalia account for over 33% of how often Scalia was interrupted. On the flipside, Scalia's interruptions of Breyer account for half of Scalia's interruptions of all his colleagues (50%) and Breyer's interruptions of Scalia account for more than half of his interruptions of any Justice (56%).

²²¹ Figure 1 on a standardized scale is provided in the Appendix, Figure A2.

Table 4: Interruptions, by pairwise Justice interactions

Got Interrupted	<i>Who Interrupted</i>											Total	
	Alito	Breyer	Ginsburg	Kagan	Kennedy	O'Connor	Roberts	Scalia	Sotomayor	Souter	Stevens		Thomas
Alito		6	7	15	10		28	13	10	1	3		93
Breyer	5	1	8	7	18	2	25	123	10	15	5		219
Ginsburg	5	5		8	27	4	22	18	8	5	7		109
Kagan	31	16	13		19		23	22	10				134
Kennedy	3	13	12	4	1	1	13	10	11	4	23		95
O'Connor		1	1					1					3
Roberts	9	9	15	9	19			13	18	2	1		95
Scalia	6	63	22	12	23	2	10		14	21	14		187
Sotomayor	23	8	14	18	23		42	14			1		143
Souter	3	11	6		7	2	2	27			4		62
Stevens	2	1	3		13		2	7					28
Thomas													0
Total	87	134	101	73	160	11	167	248	81	48	58		1168

The Scalia–Breyer dynamic could be driven by idiosyncratic factors, such as a personal animus between the two Justices. In our regression analysis in the next section, we control for any such potential idiosyncrasies by clustering by Justice-pairs. But it is always better to search for a more rigorous explanation than simple idiosyncrasies. Breyer and Scalia were ideological opponents, but that cannot explain this outsized antagonism—Ginsburg is considerably further to the left of Breyer, and yet Scalia interrupted her at 15% the rate at which he interrupted Breyer.²²² But if we consider the division on the Court not simply in terms of ideology but also in terms of methodology, the Breyer-Scalia division makes a lot more sense. Breyer and Scalia were not only divided in terms of ideology, as Ginsburg and Scalia were, but they were also far apart on the second dimension of judicial decision making, which Fischman and Jacobi identify as legal methodology.

²²² Although Justice Scalia and Justice Ginsburg were also personal friends; according to Justice Ginsburg “we were best buddies”—Statement of Justice Ruth Bader Ginsburg, STATEMENTS FROM THE SUPREME COURT REGARDING THE DEATH OF JUSTICE ANTONIN SCALIA (UPDATED), https://www.supremecourt.gov/publicinfo/press/pressreleases/pr_02-14-16.

Thus, Breyer and Scalia had no basis for agreement, either in terms of preferred outcome—liberal versus conservative—or in terms of approach—pragmatism versus legalism.²²³

Also, once we understand that the Scalia–Breyer interaction is extraordinary, gender begins to look more significant in the overall rate of interruptions shown in Table 3. If we subtract Scalia’s interruptions of Breyer, and vice versa, then the only three Justices who are interrupted more than 100 times are Ginsburg, Sotomayor, and Kagan—the three female Justices. Remember that Table 3 shows numbers that are unadjusted by the number of cases heard: given that two of the three female Justices have been on the Court for the least amount of time of all of its personnel, that result establishes that the female Justices are being interrupted at disproportionately high rates. When we break the data down by interruptions per case, this gender effect is further confirmed.

Table 5: Interruptions, by mean per case

	Breyer	Ginsburg	Kagan	Kennedy	O’Connor	Rehnquist	Roberts	Scalia	Sotomayor	Souter	Stevens	Thomas
Alito	0.50	0.73	2.33	0.86			1.73	1.22	1.39	0.33	0.76	0
Breyer		0.63	1.57	0.95	0	0	2.12	11.42	1.59	3.25	0.96	0
Ginsburg			0.51	1.67	0	0	1.98	1.56	1.37	1.14	1.32	0
Kagan			0.00	1.80			3.36	3.60	1.83			0
Kennedy					0	0	1.05	0.73	0.98	0.92	4.17	0
O’Connor						0	0.00	0.00		0	0	0
Rehnquist								0.00		0	0	0
Roberts								1.40	2.36	0.59	0.23	0
Scalia									2.35	4.81	2.64	0
Sotomayor											1.15	0
Souter											0.92	0
Stevens												0

Table 5 shows pairwise interactions, it does not show who is interrupting whom. But when Table 5 is combined with a breakdown of the results by gender, a clear gender effect emerges. Even the most basic, bird’s eye view of the data when grouping by gender gives new significance to our results so far. Table 6 provides that first look.

²²³ We do not see the same effect for Ginsburg and Alito, who are also ideological and methodological opposites. This may be because of their difference in seniority—see *infra*, discussion at Figure 7.

Table 6: Speaking and interruption behavior, by gender

Cases with Interruptions	434
Speech Episodes (all)	103,304
<i>Speech Episodes (Female)</i>	25,774
Words (all)	3,879,683
Interruptions	7,239
<i>Interruption of Female</i>	2,332
<i>Interruption by Female</i>	290

Now we start to see a clear gender dynamic. Table 6 shows the number of oral arguments with interruptions, the total number of speech episodes, the number of words spoken and the number of interruptions for the entire 2004 to 2015 period. This data indicates that in a period when, on average, 24% of the Justices were women, female Justices accounted for just under 25% of speech episodes. Women were speaking at rates proportional to their numbers. The same cannot be said for interruptions.

Of the 7,239 interruptions in that period, 32% were *of* women, but only 4% were *by* women. These preliminary numbers suggest that women are being interrupted at moderately disproportionate rates, but more dramatically, that women are being extraordinarily meek in interrupting their colleagues. But while the second part of this conclusion holds up under closer examination—men interrupt far more than women—the first part grossly understates the interruption rates of women—in fact, women are being interrupted at very disproportionate rates.

Combining the results in Table 5 with this simple finding in Table 6 that the female Justices interrupt at disproportionately low rates, we understand that the figures in Table 5 understate how much each female Justice is being interrupted. Other than Breyer and Scalia duking it out, Kagan and Sotomayor are the only Justices who are involved in interruptions more than one time per case on average with the majority of their colleagues. But Table 6 shows us that the female Justices are interrupting at very low rates—as such, the very high rate of interruptions that involve women must be driven by the women being interrupted, not by the women making the interruptions. As such, Tables 5 and 6 combined tell a story of gender playing an important role in judicial interruptions.

But the fact that Ginsburg and O'Connor are interrupted far less than Kagan and Sotomayor suggests that seniority may in fact mitigate some of the effect of gender. As discussed in the theory section, this may be because seniority mitigates the effect of gender disparities—i.e. Kagan and Sotomayor are interrupted not because they are women but because they are junior—or because the senior Justices have learned over time to change the way they ask questions during oral arguments. We explore each of these possibilities further, first by examining gender in more detail, then by examining ideology and seniority.

Figure 3: Interruptions, by speech episode and gender

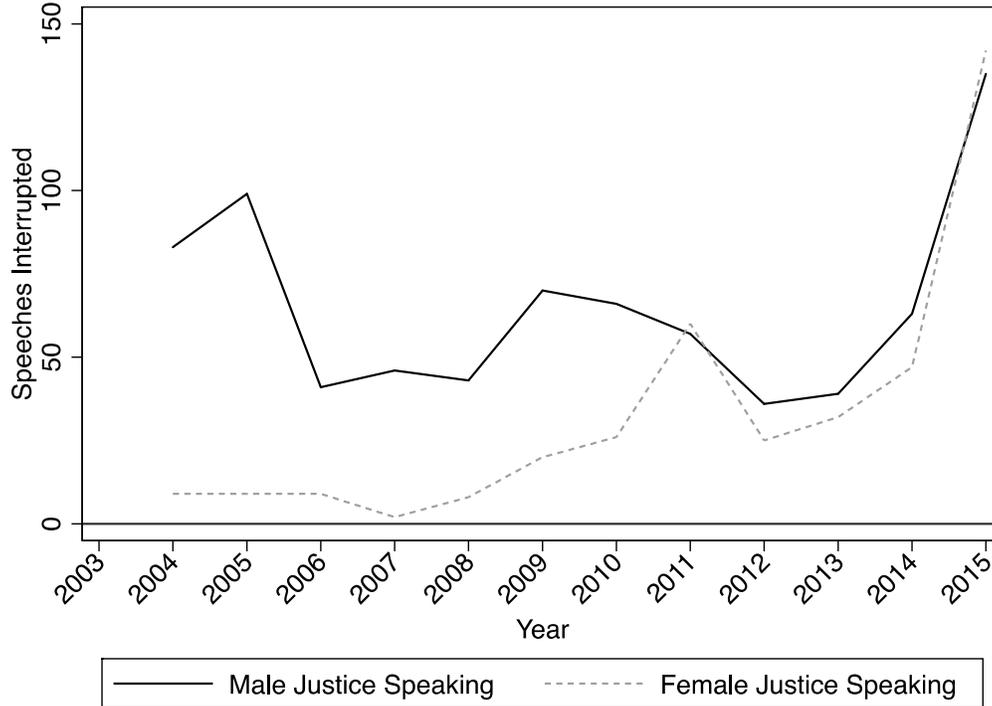
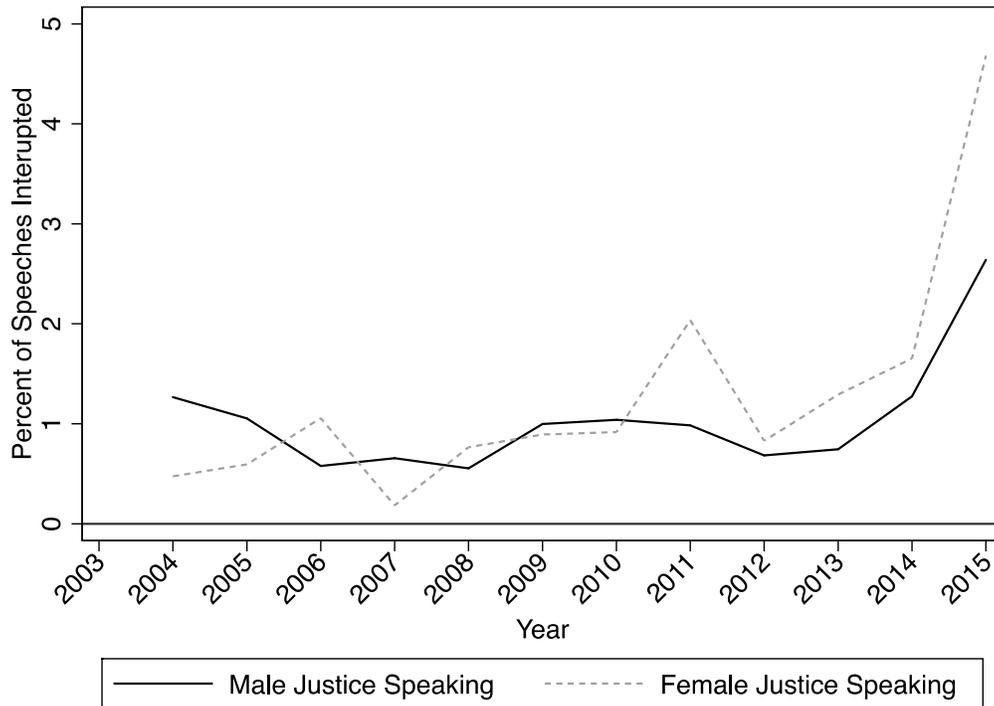


Figure 3 shows the annual number of interruptions, separating between women and men. At first glance, it may not look as if there is not a large gender difference, but Figure 3 once again displays the raw numbers, unadjusted by the fact that there is a 8-1, 7-2 or 6-3 ratio of men to women on the Court, depending on the year. Thus, while in 2004–2008 we see little evidence of a gender effect, from 2009 onwards the slope of the rate of interruptions of women is increasing, quickly reaching the point of equality in raw numbers of interruptions of men and women. That means that from 2011 onwards, effectively the women are being interrupted at approximately three times the rate of the men. Sotomayor and Kagan joined the Court in 2009 and 2010, respectively, at exactly the point when we see the distance between the unadjusted male and female interruptions begin to disappear. In 2011 and 2015, the rate of interruptions of women even surpasses those of men, despite their minority status on the Court. Thus, in terms of our original impetus for our project, 2015 does seem to be particularly high, but that peak only illustrates a broader problem.

Three possible alternative theories could explain why women are interrupted more: volubility, ideology, or seniority. That is, either women are interrupted because they talk more, women are interrupted because they are overwhelmingly of the opposite political persuasion to those doing the interruptions, or women are interrupted because they are new to the Court. Table 6 disconfirmed the first theory, showing that women speak no more than men. We examine the other possibilities in turn, and in doing so, also explore our other two hypotheses.

Figure 4: Interruptions as a proportion of times each Justice speaks, by gender



The difference between Figure 3 and Figure 4 provides further confirmation that women do not speak at oral argument more than men. In fact, the contrary is true: the relative decrease in the distance between the two lines in Figure 4 compared to Figure 3 shows that men speak disproportionately more.

Figure 4 also confirms the conclusion above that, from 2009 onwards, women were interrupted dramatically more often than men. When we adjust the interruptions as a proportion of the number of times each Justice speaks, we see that even without also adjusting for the high ratio of men to women on the Court, after 2010, women are nonetheless interrupted more often when they speak than men are. That means that after 2010, women are interrupted well over three times as often as their male colleagues. In 2015 and 2011, the effect begins to look truly astonishing. Figure 4 also shows that women were also interrupted at high rates than men from 2004 to 2008 also, more than the preliminary impression from the raw data above. During that period, the proportional rates of interruptions were about the same for men and women, conditional on them speaking, even though in 2004 there were only two women, and from 2005 to 2008, there was only one woman on the Court. In 2006, Ginsburg, the sole female, was interrupted considerably more than all of the men on the Court put together. By that stage, Ginsburg had been on the Court for 13 years. This fact alone shows that, even though seniority may be salient on its own, the gender imbalance in interruptions cannot be explained by seniority.

Figure 5: Frequency and timing of interruptions, by Justice

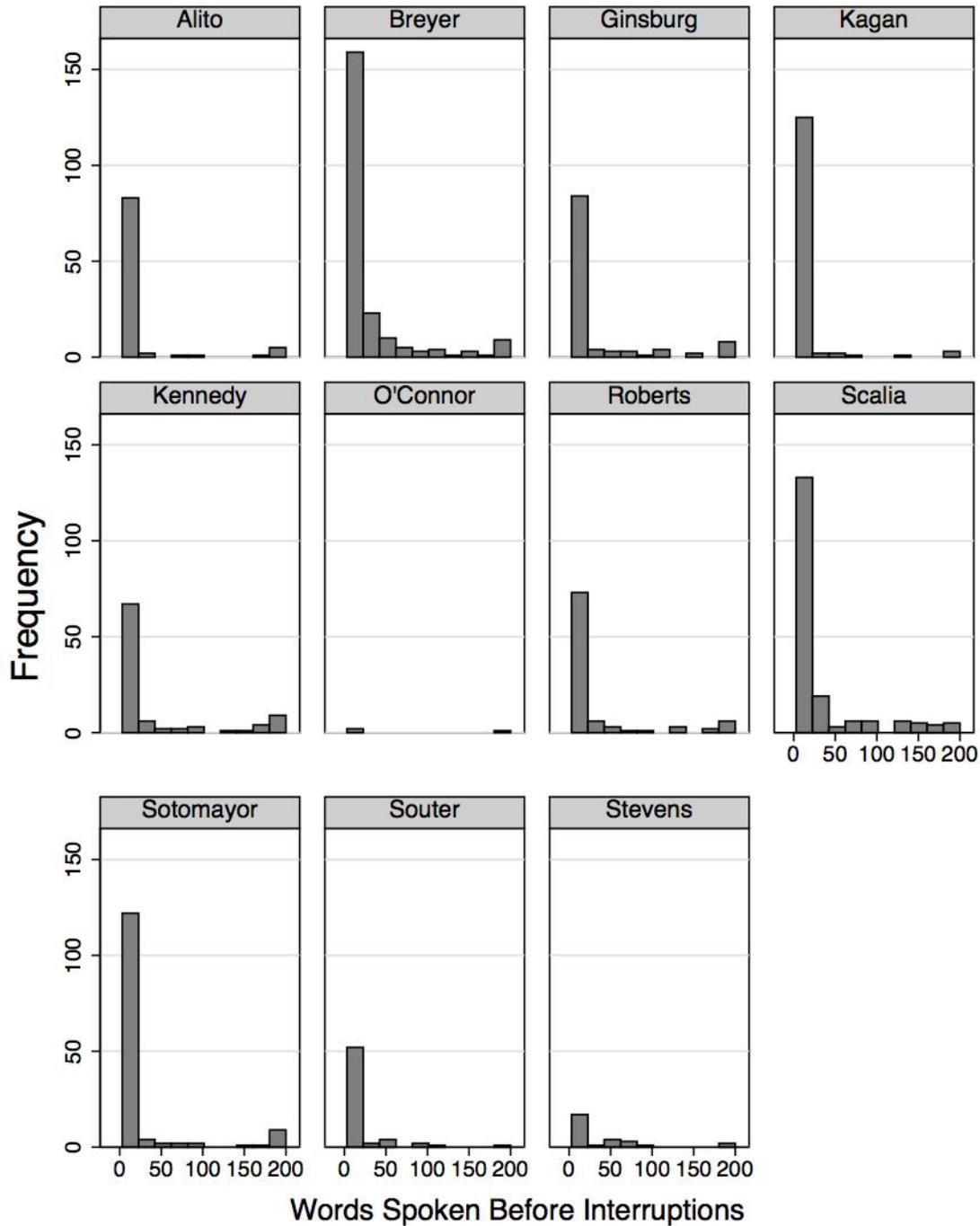


Figure 5 shows the timing of each interruption—that is, how far into a dialogue a person is able to speak before being interrupted. We have capped the word spoken axis at 200—so all dialogues over 200 words are grouped together—which explains why many of the subplots have a bump at the 200 mark. Unlike Figure 2, these interruptions are scaled consistently, so it is possible to directly compare the rate of interruptions, although Figure 5 is not standardized by number of cases heard. As such, the data tells us little, for example, about O'Connor, who only appears in the data in

2004 and only has three interruptions, and Rehnquist does not appear at all, as he was never interrupted that year.²²⁴

Clearly the four Justices who are interrupted closest to the beginning of their dialogues are Breyer, Scalia, Kagan, and Sotomayor. As discussed, the Breyer and Scalia interruptions are overwhelmingly the product of the unusual interaction between themselves; in contrast, Kagan and Sotomayor are interrupted by many different Justices, and quickly. In contrast, Ginsburg is comparable to Alito, and to a lesser extent, Roberts and Kennedy. As such, although the three female Justices are the most interrupted at the beginning of their dialogues, excluding Breyer and Scalia interrupting each other, nevertheless seniority does appear to have somewhat of an effect in mitigating the gender effect. But since we have seen that Ginsburg does not receive greater deference due to her seniority, the mitigating effect of seniority is not to reduce the gendered nature of interruptions. Instead, the effect of seniority is likely to be because Ginsburg has learned over time how to avoid being immediately interrupted—avoiding initiating her comments with the sort of framing words that makes it easy to interrupt her, for instance by saying “sorry,” “excuse me,” “may I ask,” “could I ask,” or beginning with the name of the advocate. Figure 6 explores this hypothesis:

²²⁴ We infer that Rehnquist spoke less in his final Term due to ill health.

For all three of the female Justices, we see a decline in the number of times they use these terms which our overview of the examples suggested makes them easily interruptible. For Justice Sotomayor, it looks as if she learned very quickly indeed. Note, however, this kind of adaptation does not *prevent* interruptions—as shown in the examples, women are interrupted even when their style of questioning mirrors the more direct, assertive of the men. Nonetheless, this adaptive response may reduce interruptions, and the graph shows the women are definitely learning. In contrast, the slope on all of the men’s use of these terms is overwhelmingly flat.²²⁵ As such, it looks like seniority is relevant, but more in terms of learning rather than in terms of deference. Next, we examine the effect of seniority, separate from gender.

Figure 7: Interruptions, by difference in seniority

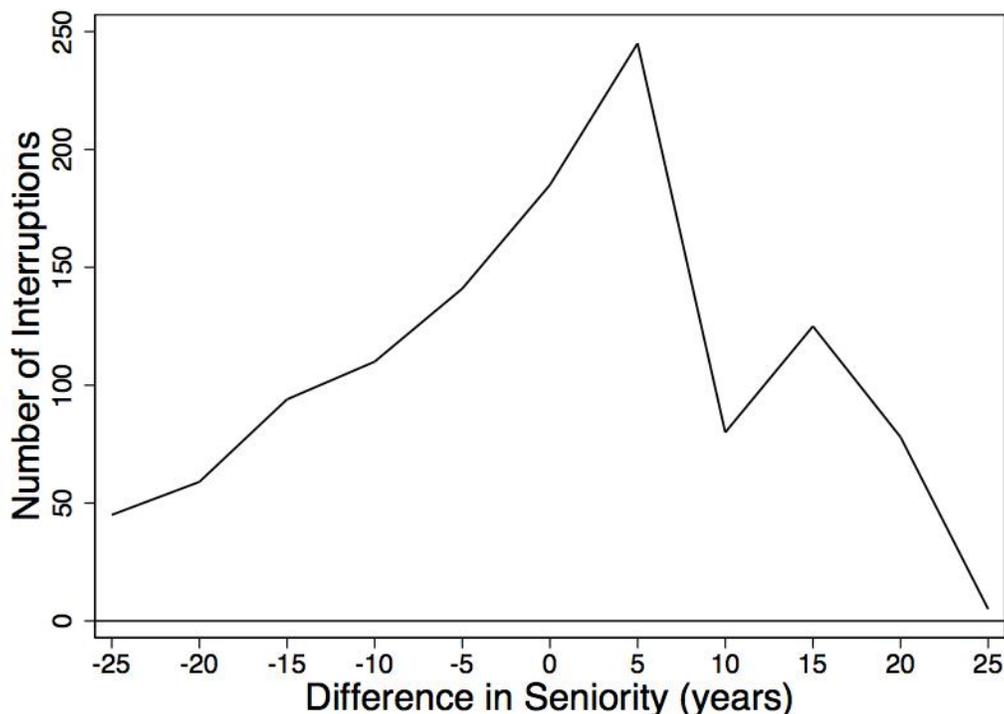


Figure 7 shows that there is a very mild effect of seniority. It uses a measure of seniority, taking the number of years on the Court of the interrupter and deducting the number of years of the interruptee. As such, positive scores comport with the norm of seniority, while negative scores defy that norm. The fact that senior Justices interrupt more than junior Justices is reflected in the slight left skew—i.e. the rightward tilt—of the graph. The very mild nature of the skew suggests that, of itself, seniority has only a very small impact on the rate of interruptions.²²⁶ Combined with our previous analysis, it seems that the real effect of seniority is in the form of women learning how to be more like men at oral arguments, rather than women receiving any deference as a product of their seniority. This is further confirmed by Figure 8, where we consider the interaction between gender and seniority.

²²⁵ With the exception of Thomas, whose rate of interruptions is too infrequent to assess in these Terms.

²²⁶ Feldman and Gill also tested seniority but confined their observations to looking for a freshman effect.

Figure 8: Proportion of male-female interruptions, by seniority

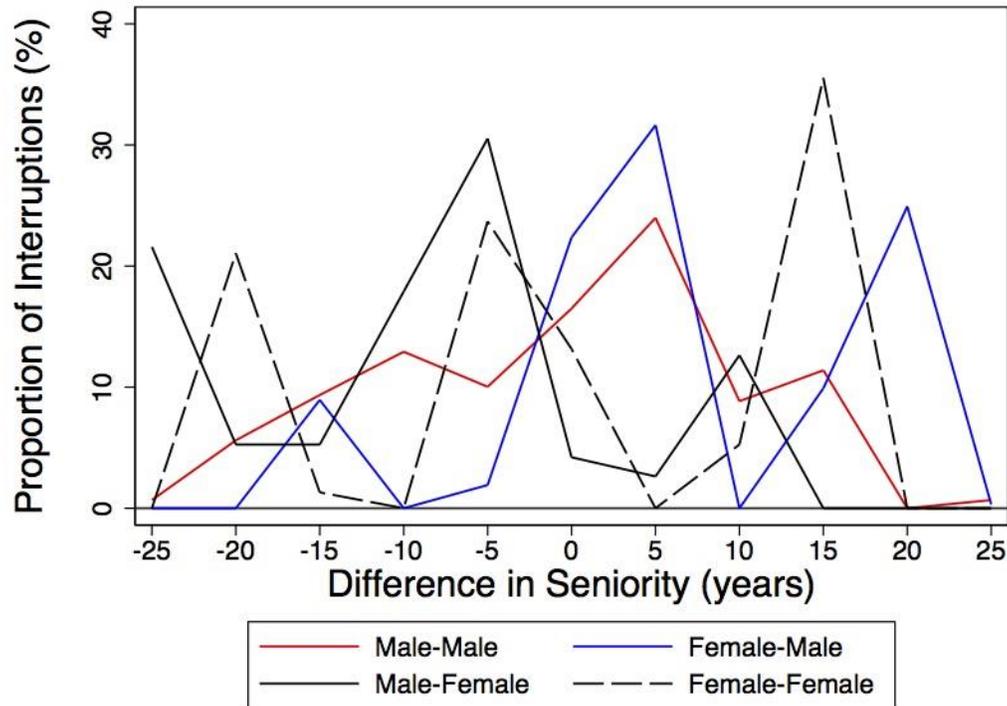


Figure 8 presents the same data as appears in Figure 7 but is broken down in terms of the respective genders of the interruptee and interrupter and presented as a proportion of interruptions. Overall, the multiple overlays of the different lines show how little effect seniority is having—while there is a small tendency of more senior Justices to interrupt junior Justices than vice versa, Figure 8 shows that the difference is small and there is enormous variation.

Nonetheless, there are a few points of interest. First, while male to male interruptions are mostly quite low, overwhelmingly we see the main effect is in junior men interrupting senior men, thus further discounting the power of seniority when separated out from gender. Second, in contrast, female to male interruptions are overwhelmingly right tilted—that is, when women do interrupt men, such interruptions are overwhelmingly the product of senior women interrupting their junior counterparts. This is a particularly strong effect given that two of the four women are the most junior Justices. As such, even though the men do not appear to respect seniority, the women seem to be affected by it more. Third, this is also confirmed in terms of the female-to-female interruptions. These are low in terms of raw numbers, since such interruptions arise only when two women are speaking, women speak less often, and women interrupt less often; thus, the chances of one woman interrupting another is especially low. But once presented as a proportion of the number of times the Justice speaks, we see that the highest proportional rate of interruptions is actually of junior women by senior women. This suggests that Ginsburg (and potentially O'Connor) really was (or were) learning to behave like men, interrupting junior female colleagues at a disproportionate rate.

Overall, then, seniority seems to have little effect of itself, with only a slight tendency of seniors to dominate juniors. Seniority seems to have its largest effect in terms of its interactions with gender. Next, we examine the effect of ideology—once again, of itself and interacting with gender.

Figure 9: Interruptions, by Martin–Quinn score of ideology

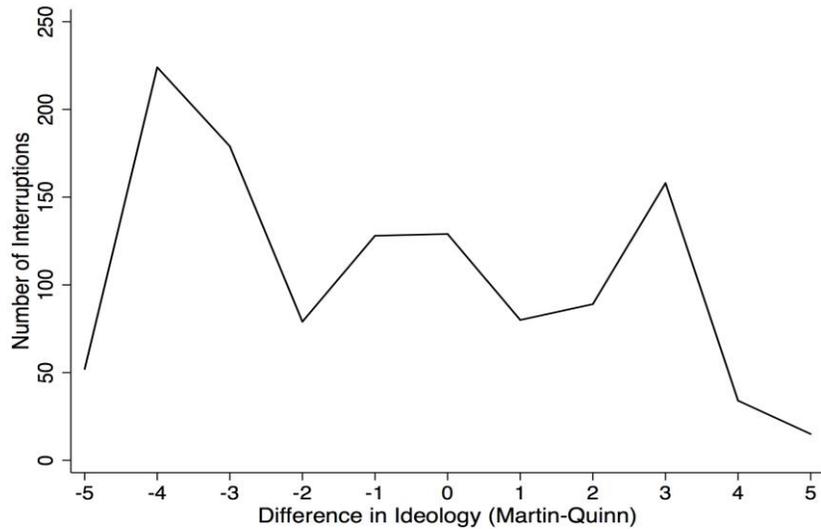


Figure 9 shows the ideological distance between the interrupter and the interruptee, by taking the Martin–Quinn ideological score of the interrupter minus the score of the interruptee, similar to the way we measured difference in seniority. We see that the distribution is trimodal: conservatives interrupt liberals at very high rates, liberals interrupt conservatives at much lower rates, and moderates are involved in interruptions, either being interrupted or doing interruptions, at lower rates also. Within the moderate group, the bulk lies primarily to the left of zero. Given that in the Roberts Court era, as well as in 2004, there were more moderate conservatives than there were moderate liberals, Figure 9 suggests that the moderate interruptions are being driven by moderate conservatives interrupting their moderately liberal neighbors, rather than being interrupted. Thus Figure 9 lends support to the main ideology hypothesis, that ideology is relevant to interruptions, but it also lends support to the median power hypothesis, that moderates are treated with great respect than the extremes, due to their powerful positions in coalition formation. But it is possible that the moderate effect we see arises not because of the median’s power, but as part of the greater tendency of conservatives to interrupt at higher rates, particularly to interrupt liberals. We explore in more detail in the next Part whether this impression of a tendency of conservatives to be more disruptive is supported when examining data from a longer-range of time. Our final descriptive analysis is of the interaction between ideology and gender. Figure 10 illustrates this relationship.

Figure 10: Proportion of male-female interruptions, by ideology

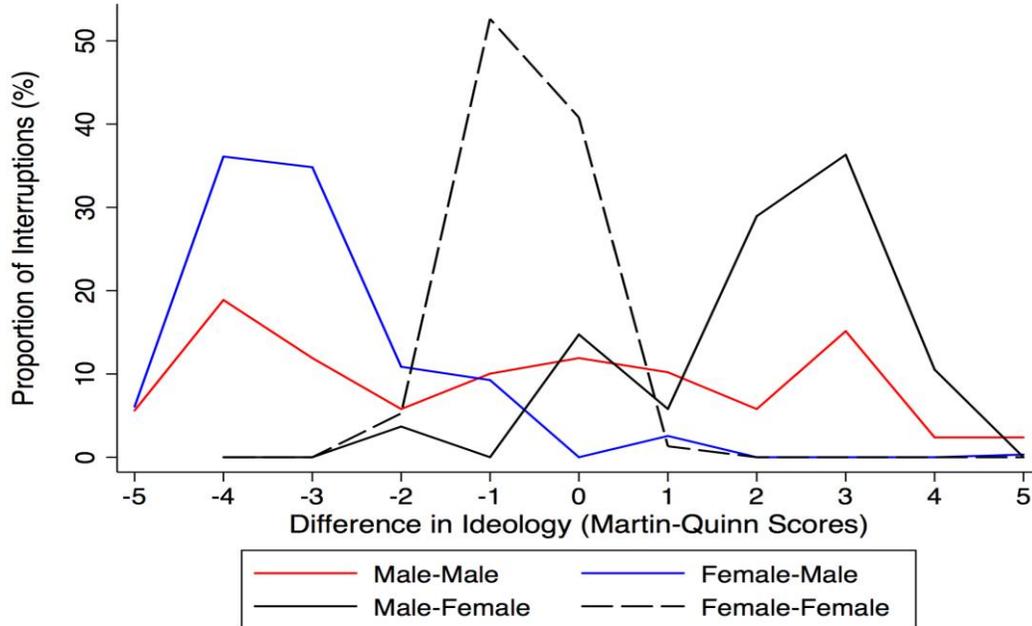


Figure 10 confirms the impression that ideology is relevant to interruptions, but it also illustrates a major problem with looking only at the Roberts Court. Throughout the Roberts Court era all three of the women were liberal. The addition of 2004 and the moderately conservative Justice O'Connor adds some variation, but not enough. Thus, the large rate of women interrupting women, as a proportion of interruptions, is all clustered around zero in terms of the difference in Martin–Quinn scores, because every interruption of a woman by a woman is necessarily a very small ideological distance. Similarly, almost all of the interruptions of women by men occur in the right-hand side of the graph, as all but one of the seven male Justices (including Chief Justice Rehnquist in 2004) have been conservative. The female to male interruptions provide an almost exact mirror. As such, we expect to have difficulty in the regression analysis disentangling gender from ideology.

The only reliable indicator we have of the effect of ideology in Figure 10 lies in the extent to which men interrupt men: we see this occurs fairly consistently across the board, with peaks at the two extremes, at a slightly higher rate of conservatives interrupting liberals. That does not mean that ideology is not significant: ideological distance could still be a very good predictor of interruptions, holding other factors constant. Unfortunately, we cannot use ideological distance in our regression analysis, since that would require having a measure of every non-interruption, which would make the data analysis unmanageable. Instead, we look simply at whether Martin–Quinn ideological scores are significant in predicting interrupting behavior.

Overall, our descriptive analysis: provides very strong confirmation of a gender effect; indicates a very weak seniority effect, albeit in the direction predicted and suggesting that seniority may nonetheless be relevant by giving women time to learn techniques to overcome a large gender effect; and lends support for an ideological effect.

B. Regression Analysis

In this section, we use regression analysis to assess whether our three main explanatory variables reliably predict interruption rates, controlling for each other variable. Our dependent variable is the number of interruptions, conditional on a Justice speaking. This is a fairly simple and direct means of assessing whether a person who is speaking is likely to be interrupted.²²⁷

For our ideology variable, we use Martin–Quinn scores for each Justice, but we make two important adjustments. First, Martin–Quinn scores measure the Justices by their voting patterns in any given year; however, some Terms may be more liberal or conservative than others, or different in some other way. For instance, in the 2016 Term, with only eight Justices serving on the Court, the Court seems to be taking less controversial cases than normal,²²⁸ which could result in more unanimous opinions, and consequently more closely clustered judicial scores. The Martin–Quinn scores do not account for this variation by Term. For this reason, we include Term fixed effects in model 3 of our regressions. This will account for idiosyncratic variation between the Terms, and avoid making false conclusions based on those variations.

Second, we use the Martin–Quinn score for each Justice in the year before the interruption occurred. We do this because we think that it is possible that interruptions may drive decisions—thus shaping ideology scores—or vice versa. If that is the case, using Martin–Quinn scores in the same year as the interruption would be putting the same variable on both sides of the equation, with interruptions affecting both the independent and the dependent variable.²²⁹ That could lead to an artificially high measure of any effect. We do not expect this to have a large impact, but it is important to be careful when using measures such as Martin–Quinn scores, which are a product of judicial behavior in the form of voting outcomes, to predict judicial behavior in the form of interruptions, which in turn may affect voting outcomes.²³⁰

We know that some oral arguments are much more contentious than others. This may be a product of the salience of the case, but it could be a product of a variety of other factors that are more idiosyncratic. For instance, on any given day, once oral arguments turn into a rough-and-tumble of frequent interruptions, more interruptions may consequently follow. So, for instance, an argument that follows a very controversial case could have an unusually high number of interruptions. As such, instead of controlling for salience, in model 4 in our regressions, we include docket fixed effects, which essentially discounts *any* variation stemming from the case itself, not just its salience.²³¹

Another mechanism we use to make sure we are not over-including non-salient matters is to exclude all interruptions of less than one second. This is to ensure that we are not capturing accidental interruptions that occur because two Justices speak at almost the same time.

²²⁷ In contrast, Feldman & Gill use interruptions as a proportion of words spoken—*supra* note 77 at 45—but proportional analysis can be quite misleading. *See supra* Figures 7, 9 and accompanying text.

²²⁸ *See, e.g.,* Lawrence Hurley, *Divided U.S. Supreme Court cautious about taking new cases* (Apr 4, 2016) <http://www.reuters.com/article/us-usa-court-vacancy-idUSKCN0X12CK>.

²²⁹ Feldman & Gill do not account for this—*supra* note 77, at 49.

²³⁰ Our approach means that we lose one year for each of the Justices who joined the Court after 2004.

²³¹ This increases the standard errors, making it harder to find any statistically significant effect. As such, gives us greater confidence that any effect found is strong enough to overcome this higher burden.

1. *The Roberts Court*

Table 7 provides the comprehensive multivariate regression for our three variables’ effects on interruptions in the Roberts Court era. In this Table and in the Tables reported in the Appendix, the regressions vary by the number of variables included—for instance, model 1 excludes seniority but all other models include it, and model 5 includes a control for the number of words spoken by each Justice. The difference between models 2, 3, and 4 are as described above—clustering only by Justice-pair, clustering by Justice-pair and Term, and clustering by Justice-pair and docket, respectively.

Table 7: Interruptions, by gender, ideology, seniority, volubility, Roberts Court

	<i>Interrupted</i>				
	(1)	(2)	(3)	(4)	(5)
Female	0.0049*** (0.0010)	0.0043*** (0.0011)	0.0023** (0.0011)	0.0028** (0.0011)	0.0024** (0.0011)
MQ Score	-0.0006** (0.0002)	-0.0007*** (0.0003)	-0.0004* (0.0003)	-0.0004 (0.0003)	-0.0006** (0.0003)
Seniority		-0.0001 (0.0000)	-0.0001*** (0.0000)	-0.0001*** (0.0000)	-0.0001*** (0.0000)
Words					-0.0001*** (0.0000)
Obs	91,317	91,296	91,296	91,296	91,296
Adj R-squared	0.001	0.001	0.005	0.016	0.017
Dep Var Mean	0.0115	0.0115	0.0115	0.0115	0.0115

Note: Standard errors in parentheses. * p<0.1, ** p<0.05, *** p<0.01.
Standard errors clustered by judge-pair.

In all of the regression models, gender is statistically significant. Being a woman makes it more likely that, any time a Justice speaks, she will be interrupted. In models 1 and 2, this effect is very highly statistically significant—we can be extremely confident that the effect is not random, as it could only occur in less than 0.1% of potential scenarios. In models 3, 4, and 5, the gender variable is only significant at the 10% level, bringing it down to marginally statistical significance. Yet in all the models, gender remains both substantively and statistically more significant than ideology. This is a very powerful result: given how comprehensively ideology has been shown to predict judicial behavior, finding that gender is both substantially larger, by a factor of about 5 in every model, and consistently more statistically significant than ideology, lends strong support indeed for the effect of gender on interruptions. In fact, as we show below, Table 7 may be understating the effect of gender.

In terms of ideology itself, Table 7 shows that a Justice is more likely to be interrupted, once speaking, if he or she is liberal. This comports with the results found above, and also found in the next Part, when looking at different periods of the Court. The effect is statistically significant at the .05 level in only one of the five models but at least marginally significant in three of the five models. But as we show below, there is reason to think that ideology is in fact more significant than Table 7 indicates—like gender, it may actually be being understated here.

For seniority, the effect is statistically significant in three of the four models but is substantially minuscule in each formulation. It accounts for between a 1:20 and 1:50 level of the impact of gender. This suggests that the claim that women are interrupted more because they are more junior in these Terms is not a safe conclusion. Gender seems considerably more powerful than seniority. Nonetheless, the direction of the seniority effect is as expected: more senior Justices are a little less likely to be interrupted than junior Justices.

2. *Beyond the Roberts Court*

So it seems that Table 7 provides a comprehensive endorsement of the gender hypothesis, reasonably strong support for the ideology hypothesis, and some evidence that seniority is statistically if not substantially significant. However, that is not a safe conclusion. The problem is that even though these conclusions hold for the Roberts Court, as it happens the Supreme Court has provided data from 2004 to 2015, not simply from 2005 to 2015. When 2004 is included in the analysis, some of our results disappear, in terms of statistical significance, and are dramatically reduced, in terms of substantive significance. In models 3, 4, and 5, gender ceases to be statistically significant even at the 10% level when 2004 is included in the analysis, and so cannot be differentiated from zero.²³² The reason is that, in 2004, O'Connor is on the Court as a moderate conservative, whereas in every other year, all of the female Justices are liberal. That means that for the Roberts Court data, there is no variation by ideology among the female Justices.²³³ The fact that the significance of the result for gender disappears in some of the regression models once the data from 2004 is included suggests the results are not quite as conclusive as they might otherwise appear.

Figures 11 and 12 provide visualizations of the impact of our three variables, presenting the differences between the male and female justices as a product of ideology and seniority, respectively. They provide the derived predicted likelihood of a justice being interrupted, conditional on speaking, on the y-axis, mapped against Martin-Quinn ideology scores and years in seniority, respectively, on each x-axis. These figures allow us both to interpret the substantive effect of each of the variables found in Table 7 and also to see the problem created by the limited data.

²³² See Appendix Table A1.

²³³ Feldman & Gill avoid this finding by excluding O'Connor (as well as Thomas and Rehnquist) from their analysis. In doing so, they effectively exclude the 2004 Term from their analysis and amplify the gender-ideology covariance in the 2004–2015 data—*supra* note 77, at 46. They report doing so because O'Connor has too few observations, but in effect that means they are excluding Justices based on the variation they are attempting to explain.

Figure 11: Effect of gender, by ideology

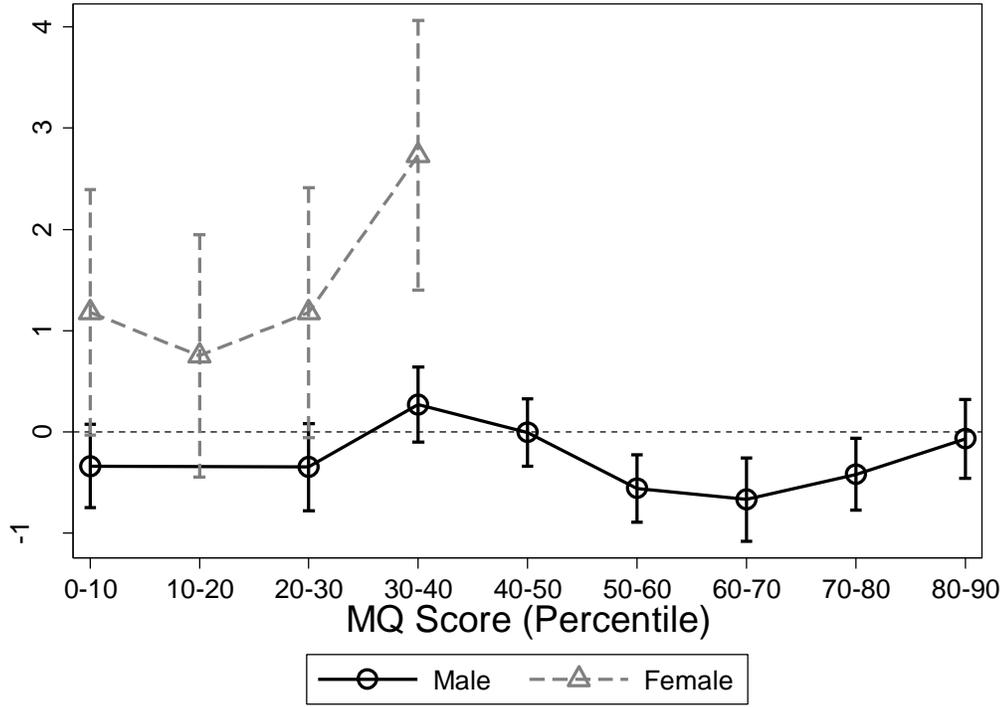
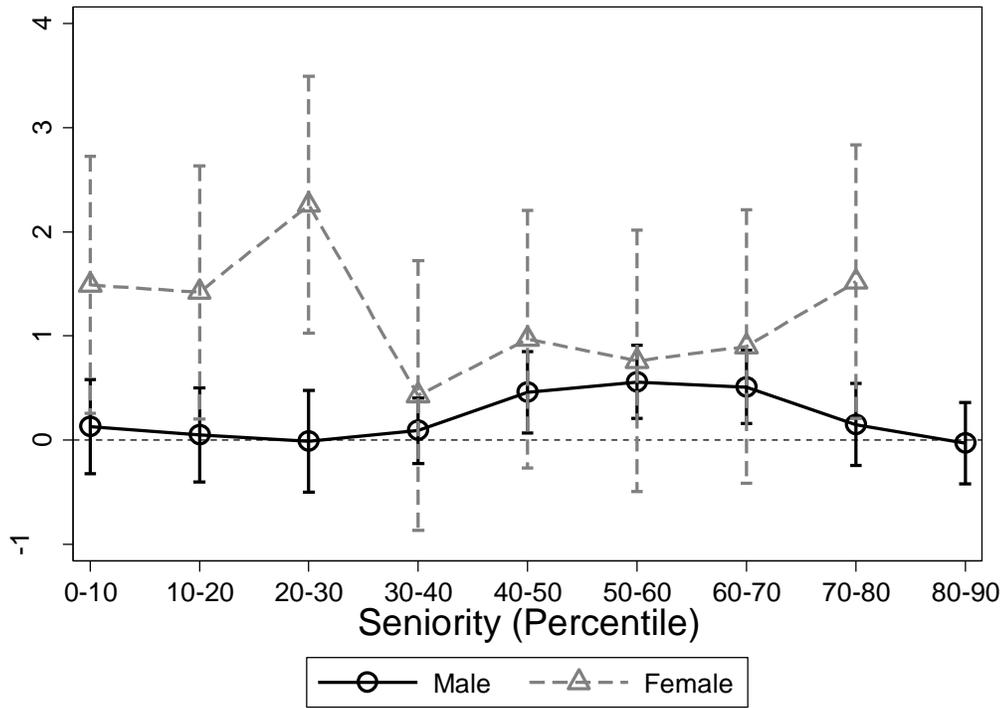


Figure 12: Effect of gender, by seniority



The male and female lines in each graph are quite clearly different, with the female justices being more likely to be interrupted across the political spectrum and across the spectrum of seniority. At times, the interruption rates of women are as much as three times as high as those of men, and are always higher to some extent. But only in one decile in each figure is the confidence interval around the female interruptee coefficient (represented by the dashed vertical line bracketing each triangle) fully separated from the male confidence interval (represented by the straight vertical line around the circle). This occurs at the 30-40% decile for ideology and at the 20-30% decile for seniority. As such, statistically speaking, we can only be confident at the 95% level that gender has the hypothesized effect, separate from our other variables, for one small part of the data. This is almost certainly driven by want of data, since the effect is clear and consistent, but any statistical inference has to be qualified.

That does not mean that we cannot conclude that either gender or ideology, or both, have significant and meaningful effects on interruptions. Tables A2 and A3 in the Appendix show that when either variable is excluded, the other returns to extremely high levels of significance. In every model, ideology or gender is significant at the 0.01 level—indicating highly significant—and in the direction predicted. Note that the size of the effect also increases for both variables when the other is not present. That means that ideology and gender are so interrelated in the 2004–2015 data that including both variables is essentially like including much the same variable twice. The results do not mean that either variable is not in fact highly salient to interruptions, just that they are too intertwined to fully explore in this limited range of data. In this era, without ideological variation among female Justices, including both ideology and gender in the same analysis takes away the explanatory power of both. However, Tables A2 and A3 strongly suggest that both variables are likely to be significant when there is more data than simply that provided by the years 2004 to 2015. But looking only at those years, the conclusion is at best tentative. In the next Part, we explore whether the effect exists beyond the 2004–2015 period.

Interestingly, with gender excluded, the significance of the effect of seniority drops away in almost every model. That suggests that rather than concluding that the seeming effect of gender is driven by seniority, it may be the reverse: seniority seems significant because gender is so powerful. Put another way, the gendered interruption behavior of the male Justices may be being masked by the norm of seniority, obscuring the fact that they interrupt women at disproportional rates.

IV. Empirical Analysis 2: The Court over Time

In this Part, we look beyond the contemporary data to determine whether the trends we have identified existed prior to the Roberts Court. In addition to the publicly available oral arguments data covering 2004-2015, we coded data from 2015, 2002, and 1990. We chose these three years for the following reasons. First, we chose the Court's most recent Term to compare the consistency between the two databases. Second, we aimed to have a representation of each type of gender distribution on the Court—a Term in which there were three women (Ginsburg, Sotomayor, and Kagan), two women (O'Connor and Ginsburg), and one woman (O'Connor). That allows us: first, to test whether the gender effects we identify for the Roberts Court are consistent over time; second, to begin to assess whether having different proportions of men and women on the Court affects the behavior of either gender; and third, to assess the extent to which women, and potentially men, learn over time how best to deal with the gender dynamics of the Court. Third, we chose the 2002 Term so that we would have one Term where a woman was the median Justice. This allows us

to assess the power of the median²³⁴ in this context, and it ensures that we have variation in the combination of gender and ideology, unlike in the Roberts Court data.

The importance of this final element cannot be overstated. Analyzing these additional years allows us to disentangle to some extent the effect of gender and ideology. In 2015, Ginsburg had an ideology score of -2.50, Sotomayor was -2.47 and Kagan was -1.52. Ginsburg and Sotomayor were each more than one full standard deviation left of average for the entire history of the Court (2.14), and Kagan was 0.71 of a standard deviation more liberal than average. To give this context, only 13.6% of a normal distribution is greater than one standard deviation above average. In contrast, O'Connor's score in 2002 was 0.25 and in 1990 was 1.12—that is, moderately conservative in 2002 and more than half of one standard deviation to the right in 1990.

Before developing our coding scheme, we listened to dozens of oral arguments from the last five years. Once again, we coded the data by searching the transcript of every oral argument in the 1990, 2002, and 2015 Terms for the “--” that indicates an interruption or a break. Additionally, where an interruptee only spoke a couple words before being interrupted, we listened to that particular interruption to determine whether it was a true interruption, rather than simultaneous speech. This makes our unique data comparable to the Roberts Court data when excluding interruptions of less than one second in that database.

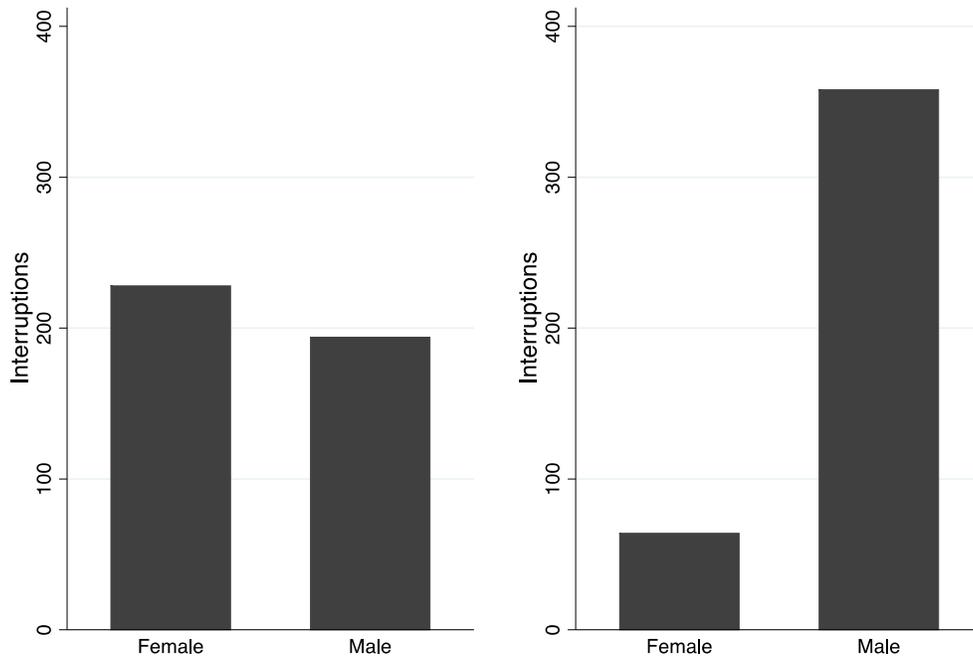
Concentrating on just three Terms presented us with fewer cases and fewer interruptions, but it allowed us to undertake more in-depth analysis of those Terms. Our data for this section consists of 156 oral arguments, in which there were 422 interruptions.

A. Gender effects—Interruptions in aggregate

Even without controlling for the fact that there have always been far fewer female than male Supreme Court Justices, the raw numbers tell a compelling tale. Figure 11 and Table 8 present the unadjusted figures for interruptee and interrupter, by gender.

²³⁴ See Epstein & Jacobi, *Super Medians*, *supra* note 33 (detailing the importance of the median Justice).

Figure 11: Gender of interruptee and interrupter, overall



As Figure 11 demonstrates, the effect is stark: even without controlling for the fact that women have made up for between only 11% and 33% of the Justices on the Court, they are interrupted more often than their male counterparts. On average women constituted 22% of the Court yet 52% of interruptions were directed at them. Overwhelmingly, it was men doing the interrupting: women interrupted only 15% of the time, which is disproportionately low, and men interrupted 85% of the time, more than their 68% representation on the Court. Table 8 confirms that the gender effect we identify is not limited to the Roberts Court:

Table 8A: Gender of interruptee, unadjusted

Term	<i>Gender</i>		Total
	Female	Male	
1990	10	28	38
2002	77	93	170
2015	141	73	214
Total	228	194	422

Table 8B: Gender of interrupter, unadjusted

Term	<i>Gender</i>		Total
	Female	Male	
1990	2	36	38
2002	25	145	170
2015	37	177	214
Total	64	358	422

Table 8 presents the breakdown of this data by Term. It is clear that interruptions have increased considerably over time. This lends credence to the idea that the Court is becoming more fractious, and it calls into question the claim that the current culture of a disruptive Bench is a product of Scalia's unique personality. Scalia joined the Court in 1986 and yet the number of interruptions in 1990 was only 38, considerably lower than in 2002 (170), which in turn was lower than 2015 (214). Interruptions did not go from 0 to 100 with the addition of Scalia, rather they increased over time. Perhaps Scalia's effect was gradual; however, on that logic, interruptions should be distributed evenly and we should not expect any gender effect, which clearly exists. Finally, if Scalia was the cause of the disruptive culture, we would also expect Scalia to immediately be leading the charge of interruptions, but as we see below, that is not the case.

There is a consistent effect for women being interrupted, not only in terms of how frequently they are interrupted compared to men, but in the rate at which women are interrupted as a product of the number of women on the Court. Even though the numbers of interruptions are increasing over time, the rate at which female Justices are interrupted also increases over time. In 1990, with one woman on the Court, 35.7% of interruptions were directed at her; in 2002, with two women, 45.3% were directed at the female Justices; in 2015, 65.9% of all interruptions on the Court were directed at the three women.

Interestingly, interruptions are not increasing consistently for men, who were interrupted the most in 2002. The sheer number of interruptions of men has actually decreased in the last decade and a half, even as interruptions on the Court generally have increased strongly. Thus, we are not seeing a purely monotonic effect in terms of overall interruptions—the interruptions of women do not simply reflect an increasingly disruptive atmosphere, but one that seems particularly directed at women.

Indeed, the more women on the Court, the more they are interrupted. This suggests that rather than getting acclimated to having to share the Bench with women, men may be becoming more hostile to the incursion of women into their traditional domain. This finding is consistent with social science literature showing that traditional elites,²³⁵ such as legislators,²³⁶ feel threatened by the entry of nontraditional members into their realm and act more aggressively to the interlopers in an attempt to protect their privilege.

Furthermore, Table 9 shows that it is not simply that men are interrupting more than women are interrupting; instead, men are interrupting women in particular at a high rate.

²³⁵ See, e.g., AARON DHIR, CHALLENGING BOARDROOM HOMOGENEITY 54 (2015) (describing how traditional directors resisted calls for diversification in corporate board rooms and sought to protect their privileged status).

²³⁶ See *infra* discussion at note 121.

Table 9: Gender interaction

Gender			
Interaction	Freq.	Percent	Cum.
Male-Male	151	35.78	35.78
Male-Female	207	49.05	84.83
Female-Male	43	10.19	95.02
Female-Female	21	4.98	100
Total	422	100	

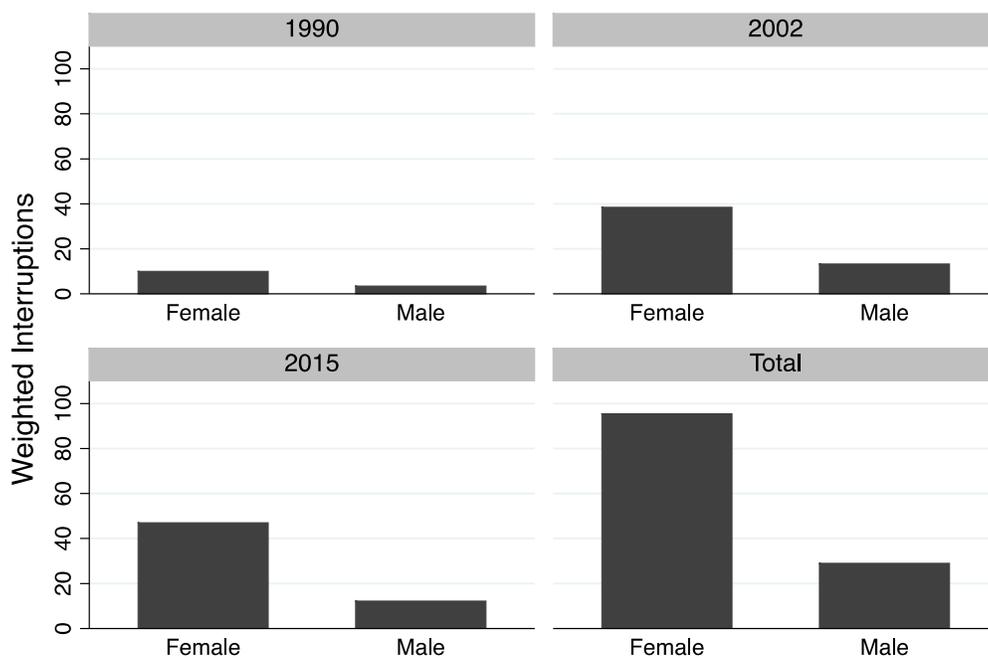
Table 9 once again uses unadjusted numbers, not accounting for the disproportionately male membership of the Court. Nevertheless, we see that not only are women interrupted more often than men, and women interrupt much less than men, but the focus of male interruptions is on women. Even with only one, two, or three female targets, compared to eight, seven, and six other male targets, men are interrupting women more often than they are interrupting their fellow men. Thus, on both the Roberts Court and more generally, women are treated differently to men.

B. Adjusting for the Gender Gap on the Court

Now we normalize by the relative numbers of each gender to serve on the Court. We assess each Justice's *tendency* to be an interrupter and interruptee by adjusting for the proportion of men and women who were on the Court in each year. We do this by weighting interruptions in each Term by the gender ratio of each Court. In essence, this is comparing the average man and the average woman.²³⁷ Figure 12 shows the results.

²³⁷ In 1990, with only one woman, we are directly comparing O'Connor with the average of the male Justices.

Figure 12: Gender of interruptee, normalized, by year

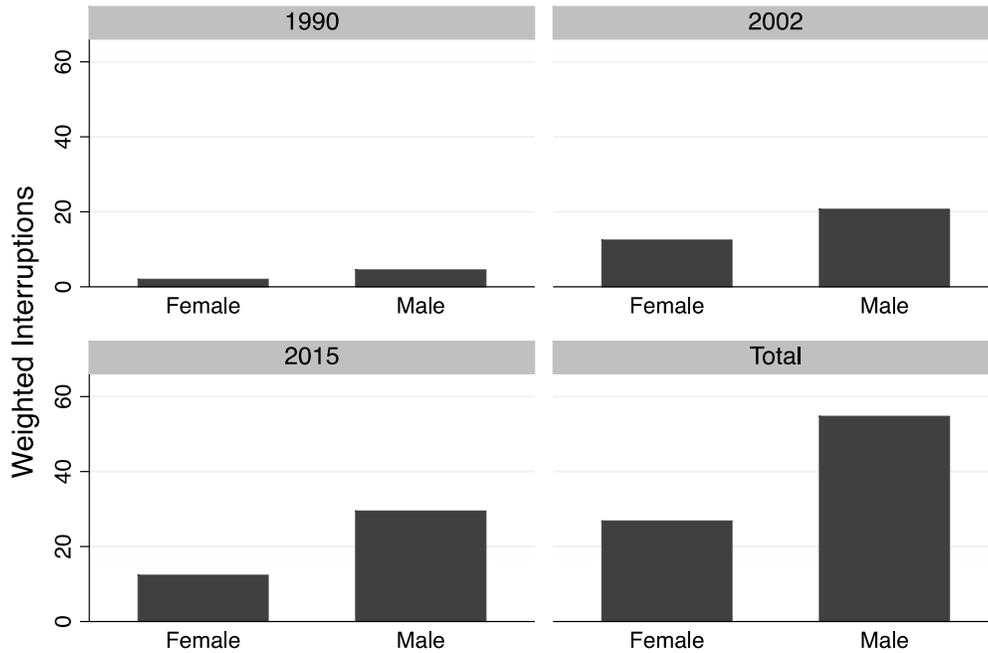


In Figure 12, we see that in every Term, and overall, the average man was interrupted far less than the average woman. In 1990, Justice O’Connor was interrupted 10 times, and the average man was interrupted fewer than 3.5 times—in other words, O’Connor was interrupted 2.8 times as often as the average male Justice. In 2002, the average woman was interrupted 38.5 times, almost 2.9 times as often as the average man, at 13.3 interruptions. By 2015, the average woman was interrupted 47 times to the average man’s 12.2—that is 3.9 times as often.

Again, we consider whether women are interrupted more because they are doing more talking. Consistent with other empirical studies in linguistics rebutting this misconception,²³⁸ our results cast doubt on that alternative theory. In our Roberts Court data, we examined directly the impact of how often and for how long each person speaks. But here, we can deal with this alternative theory through more basic logic. If women were being interrupted because they spoke more, we should expect to see women interrupting women at disproportionate rates as well, but we do not see that, as can be seen in Figure 13.

²³⁸ See *supra* note 220.

Figure 13: Gender of interrupter, normalized, by year



Instead, we consistently see that the male Justices interrupt at a far higher rate than the female Justices. In 1990, women interrupt less than one third as much as men (2 to 4.5); in 2002, the ratio is just over one third (12.5 to 20.7); and in 2015, it is again less than one third (12.3 to 29.5). The fact that the effects are as hypothesized in both directions—women being interrupted more and men doing more of the interruptions—suggests that it is the gender of the speaker driving interruptions, not for how long she or he is speaking.

Overall, these differences are significant, as illustrated in Table 10, which tests the significance of the difference between what we would expect under the null hypothesis—that there is no gender effect—and what we observe.

Table 10: Significance of differences between observed and neutral gender effect

<i>Interruptees</i>				
	Expected	Observed		
Year	Proportion	Count	N	P-Value
1990	0.11	10	38	0.0029
2002	0.22	70	170	0.0000
2015	0.33	141	214	0.0000

Interrupters

Year	Expected Proportion	Observed Count	N	P-Value
1990	0.11	0.05	38	0.2514
2002	0.22	0.15	170	0.0184
2015	0.33	0.17	214	0.0000

In 1990, with only 38 observations, the difference is not significant. This is probably due to the low sample size in that Term. Standing alone, we cannot be confident of any effect of gender in 1990; but note that it displays the same gendered direction. With more observations in 2002 and 2015, the result is highly significant ($p \leq 0.01$). In the latter two Terms, gender differences are clearly evident, for both interruptees and interrupters; this result has less than a 1% chance of being random error. With the three Terms together, the effect of gender is very clear.

C. Interrupting Behavior – Individual Justices and Advocates in Aggregate

So far, we have looked at the Justices grouped by gender. Now we look at the Justices to see who does the most interrupting and who is the most interrupted. First, we need to control for the fact that some Justices appear in multiple years, so we have weighted each Justice's behavior by their time on the Court. This allows us to ask: who would be the likely interruptee and interrupter if they served equal time on the Court? Table 11 presents the results.

Table 11: Interruptees, ordered as fraction of interruptions

Interruptee	Weighted Fraction
Ginsburg	0.18
Sotomayor	0.10
O'Connor	0.10
Scalia	0.09
Kennedy	0.09
Breyer	0.08
Kagan	0.07
Stevens	0.06
White	0.06
Souter	0.05
Rehnquist	0.04
Alito	0.03
Roberts	0.03
Blackmun	0.01

Table 11 shows that three of the four women to have ever served on the Supreme Court take the top three positions of those who are interrupted most frequently. Kagan is the exception for women, lying at the middle of the pack. But Ginsburg is interrupted six times as often as her current colleagues, Alito and Roberts, and Sotomayor is interrupted more than three times as often. Even Kagan is interrupted more than twice as often as these two male Justices. This suggests that gender rather than ideology is dominant, since even the conservative O'Connor is interrupted considerably more often than the liberal Breyer, though we explore the effect of ideology in more detail below. Ginsburg alone accounts for 18% of *all* weighted interruptions in the three Terms we examine here. Remember Table 11 controls for how often each Justice appears on the Court, so this is not a product of Ginsburg appearing in two of our three Terms.

Table 12 conducts the same analysis for interrupters. Although we are not interested in advocates being interrupted by the Justices, we are interested in assessing whether advocates interrupt the Justices, contrary to the rules of the Court. We group advocates by gender.

Table 12: Interrupters, ordered as fraction of interruptions

Interrupter	Weighted Fraction
Kennedy	0.17
Scalia	0.14
Rehnquist	0.13
M-Advocate	0.09
Stevens	0.07
White	0.06
Breyer	0.06
Roberts	0.05
Ginsburg	0.04
O'Connor	0.04
Marshall	0.04
Alito	0.03
Souter	0.03
Kagan	0.03
Sotomayor	0.01
F-Advocate	0.00

The gender roles are equally stark, although reversed, for interrupters: men take the top three positions, with the worst offenders being Kennedy, Scalia, and Rehnquist. Down the bottom of the pack we have two of the four women. The other two women take up ninth and tenth position. So we see that although some women interrupt more than others, all of the women appear in the bottom half of the Table of interrupters.

Regarding the Scalia theory of interruptions, we see that Scalia is in fact one of the Justices most likely to interrupt, but notably he comes in second, not first, behind Kennedy, and only just ahead of Rehnquist. Thus, Scalia was not an outlier, just a particularly fractious Justice. This does not disprove the Scalia thesis, but it does further discount it.

Equally as striking as the gender division among the Justices is the gender division between the advocates. In fourth place of interrupters are the male advocates. Despite the strict norm that advocates are meant to immediately cede to the Justices during oral argument, we find that male advocates interrupt the Justices quite often. In contrast, at the very bottom of the list are female advocates. Given that we discount one or two word interruptions, so as to avoid counting overlaps, the advocates should not appear in this table at all. Note that the advocates are grouped together in aggregate, but they are weighted to an average comparable with the Justices (in fact, in terms of real numbers, male advocates come in third place). This is a clear breach of the rules of the Court that is being tolerated of male advocates. Thus, we see not only gender roles among Justices, but also among the advocates. In the next section, we explore, among other things, whether the male advocates are interrupting the female Justices in particular.

D. Justice Interactions—Pairwise Behavior

The vast majority of the interruptions in each year are attributable to a small number Justice pairs. Table 13 includes those pairs that account for the top half of interruptions in each Term.²³⁹

Table 13: Interruptions as pairwise interactions, top 50%, by year

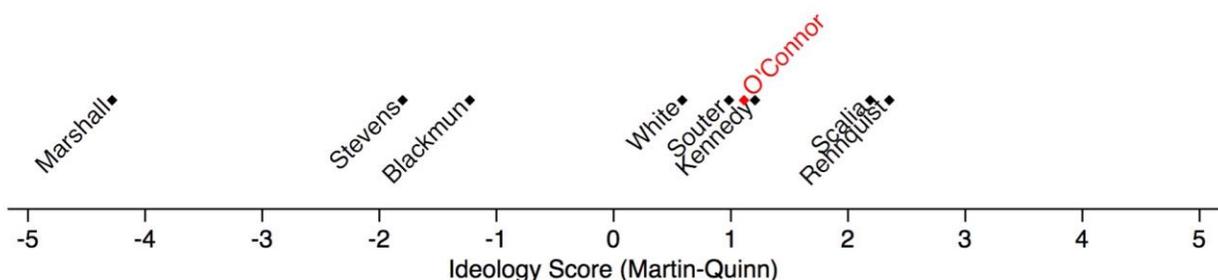
	<i>1990</i>	
Judge Interaction	Fraction	Cumulative
Rehnquist-O'Connor	0.13	0.13
Rehnquist-White	0.08	0.21
White-Scalia	0.08	0.29
White-Rehnquist	0.05	0.34
Marshall-Kennedy	0.05	0.39
Scalia-Stevens	0.05	0.45
Scalia-Kennedy	0.05	0.50

²³⁹ The full list of more than fifty pairwise interactions appears in the Appendix, Table A4. In 2015, we list more than the top half, since seven pairs tied for 11th place.

<i>2002</i>		
Judge Interaction	Fraction	Cumulative
Kennedy-Ginsburg	0.09	0.09
Scalia-Ginsburg	0.06	0.16
Breyer-Ginsburg	0.06	0.22
M-Advocate-Ginsburg	0.06	0.28
Rehnquist-Ginsburg	0.05	0.33
Stevens-Ginsburg	0.04	0.36
Ginsburg-Souter	0.04	0.40
Ginsburg-Breyer	0.03	0.43
Scalia-Souter	0.03	0.46
Scalia-Breyer	0.03	0.49
Souter-Ginsburg	0.03	0.52
<i>2015</i>		
Judge Interaction	Fraction	Cumulative
M-Advocate-Sotomayor	0.08	0.08
Kennedy-Sotomayor	0.07	0.14
Alito-Sotomayor	0.05	0.20
Kennedy-Ginsburg	0.05	0.25
Kennedy-Kagan	0.05	0.29
Scalia-Kagan	0.05	0.34
Roberts-Sotomayor	0.04	0.38
Roberts-Kagan	0.03	0.41
M-Advocate-Roberts	0.03	0.44
M-Advocate-Kagan	0.03	0.47
Scalia-Sotomayor	0.02	0.49
Kagan-Sotomayor	0.02	0.51
Kagan-Ginsburg	0.02	0.54
M-Advocate-Breyer	0.02	0.56
Roberts-Alito	0.02	0.58
Alito-Kagan	0.02	0.61
Breyer-Kagan	0.02	0.63

In 1990, 50% of the interruptions are comprised of just seven Justice pairs. Coming in first place is Rehnquist interrupting O'Connor. Interestingly, Rehnquist was one of her two closest ideological allies, along with Kennedy, suggesting that, in 1990 at least, gender trumped ideology. Additionally, O'Connor was close to the median in 1990 and far more moderate than both Rehnquist and Kennedy, as seen in Figure 14:

Figure 14: Martin–Quinn scores, 2004



Epstein & Jacobi showed that the power of the median Justice is not simply a product of being the fifth of nine Justices in ideological order; instead, median power is a function of the ideological space among the moderate Justices.²⁴⁰ If the preferences of the median are close to next closest Justice, the median’s bargaining power is significantly reduced; if not, the median is in a position to dictate the terms upon which the winning coalition will be formed.²⁴¹ O’Connor was not the median in 1990, but she was one of three Justices clustered at the median and thus should have been more powerful than Scalia or Rehnquist at the far right of the Court. And yet O’Connor was interrupted the most in 1990 and usually by the Court’s ideological extreme—she is also frequently interrupted by Stevens, the second most liberal Justice on the Court. Arguably, whatever power accrues to median Justices is less apparent than gender when the currency of the day is speech.

In 2002, the significance of gender is even more striking: the top six spots, making up more than one third of all interruptions for the year, are comprised of male Justices interrupting Justice Ginsburg. And overall, Ginsburg being interrupted accounts for 44% of all interruptions for in the 2002 Term.²⁴² Additionally, coming in fourth place in terms of interruptions are male advocates interrupting Ginsburg. In contrast, to see male advocates interrupting a male Justice, it is necessary to look all the way down to fortieth spot.²⁴³ The male advocates, it seems, also feel entitled to interrupt the female Justices.

In 2015 it is notable that the three women constitute eight of the top interruptees. Astonishingly, the most common interruption in 2015 is male advocate interrupting a female Justice: Sotomayor. Male advocates also interrupt Kagan, Breyer and Roberts at surprisingly high levels, suggesting a more general breakdown of the norm of advocates not interrupting Justices. However, Sotomayor is interrupted by male advocates almost 3 times as often as any other Justice. In contrast to the 41 interruptions by male advocates in the 2015 Term (14 male, 27 female), there were only two interruptions by female advocates in 2015, both of Sotomayor.

²⁴⁰ Jacobi & Epstein, *Super Medians*, *supra* note 33, at 78.

²⁴¹ *Id.*

²⁴² See Table A4, Appendix.

²⁴³ *Id.*

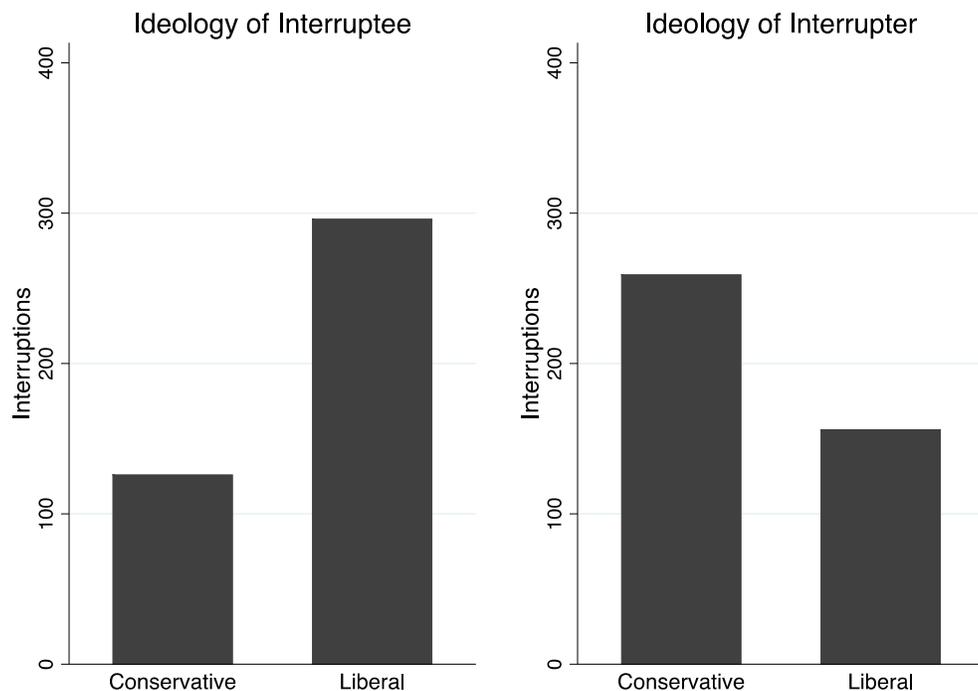
E. *Interruptions by Ideology—Conservatives versus Liberals*

Now we turn to our next hypothesis: that ideological division also predicts who will interrupt whom on the Court. First, we examine the simple division of left and right, between liberal and conservative Justices. This also allows us to test whether there is a categorical antipathy between the left and right camps of Justices. Table 14 and Figure 15 present the results, looking at both interruptees and interrupters in terms of ideology.

Table 14: Interruptions by ideology

Term	<i>Conservative</i>		<i>Liberal</i>		<i>Advocate</i>	Total
	Interruptee	Interrupter	Interruptee	Interrupter	Interrupter	
1990	24	22	14	16	0	38
2002	46	98	124	69	3	170
2015	56	139	158	71	4	214
Total	126	259	296	156	7	422

Figure 15: Interruptions by ideology, interruptee and interrupter



As with gender, the effect of ideology is immediately apparent. The results confirm that there is a clear ideological *direction* to interruptions on the Supreme Court: conservatives interrupt far more and liberals are interrupted far more, even when we consider terms going further back than the Roberts Court.

On the interrupter side, in every year, the conservative Justices interrupt consistently more often than the liberal Justices. All of the effects are increasing except that liberal Justices interrupt less in 2015 than in 2002. On the interruptee side, in 2002 and 2015, liberals were interrupted at a far higher rate than conservatives. This was reversed in 1990, but note 1990 was the year where the sole woman on the Court was conservative. Thus, again, gender may be dominating ideology. Nonetheless, the effect of ideology appears to be quite large.

This raises the question of whether liberals and conservatives are different in terms of their behavior due to something inherent in the nature of being conservative or liberal. But we expect it is far more likely that, instead, the effect is a cross-ideological one, rather than an innate one. That is, we expect not simply that conservatives interrupt more, but that conservatives interrupt liberals more in particular. Table 15 explores this possibility.

Table 15: Interruptions by ideological interactions

Ideology Interaction	Frequency	Percent	Cumulative
Conservative-Liberal	197	46.68	46.68
Liberal-Liberal	92	21.8	68.48
Liberal-Conservative	65	15.4	83.89
Conservative-Conservative	61	14.45	98.34
Neutral Advocate-Liberal	7	1.66	100
Total	422	100	

We now include the ideology of the advocates in our analysis, using the side that they represent—petitioner or respondent—cross-referenced with whether each side is categorized as liberal or conservative in the primary database for Supreme Court decision making, the U.S. Supreme Court Database.²⁴⁴

Table 15 lends some support to both versions of the ideological effect. In terms of the cross-ideological effect, interruptions of liberals by conservatives and vice versa account for 62% of Justice-to-Justice interruptions, compared to 38% for within ideological camp interruptions. But there is also strong support for the hypothesis that conservatives simply interrupt more than liberals. By far the most common interruption was of conservatives interrupting liberals—that one category alone of our six categories accounts for 47% of the interruptions witnessed. Furthermore, across categories—conservatives, liberals, and advocates—each group interrupt liberals more than conservatives. Interruptions of liberals account for over 70% of all of our interruptions.

That does not mean that there is something innately interruptible about liberals or something particularly aggressive about conservatives, since even the advocates display this trend. Advocates interrupting liberals account for over 10% of all interruptions (45), and less than 3% of interruptions involve advocates interrupting conservatives (11). Thus, advocates interrupt liberals

²⁴⁴ Harold J. Spaeth et al., *2016 Supreme Court Database*, (Version 2016 Release 01), <http://Supremecourtdatabase.org>. The database codes the outcome of each decision either “liberal” or “conservative” according to whether it favored classic liberal underdogs such as the accused in a criminal case, a person seeking the protection of civil rights, children, indigents, or American Indians. *Id.*

four times as often as they interrupt conservatives, even though advocates by definition are exactly 50-50 in terms of representing liberal versus conservative sides of a case.

These results may be a product of conservatives expressing a sense of power during the period of conservative ascendancy in the personnel of the Court—there has not been a liberal Court for over half a century.²⁴⁵ Advocates may simply recognize that they need to defer less to liberal Justices because conservative Justices are more likely to make up the majority coalition. This lends support to a political version of the Zimmerman & West theory of interruptions as part of a social hierarchy—even those in lower positions of power (advocates) will interrupt individuals in a lower position of power (liberals in relation to conservatives), even if those individuals are in a higher power position than the person interrupting.

F. *Ideological Distance of the Justices*

Now we examine the relationship between interruptions beyond the binary liberal versus conservative classification and take into account again the *extent* or extremity of the Justices’ conservatism or liberalism. We use the same measure of ideological distance as in the previous Part: the score of the interrupter minus the score of the interruptee. Table 16 displays the results.

Table 16: Interruptions by ideological distance between Justices

1990					
	Mean	Std. Dev.	Min	Max	Observations
Interrupter	0.63	2.10	-4.27	2.36	38
Interruptee	0.86	1.26	-1.79	2.36	38
Difference	-0.23	2.74	-6.63	4.15	38
2002					
	Mean	Std. Dev.	Min	Max	Observations
Interrupter	0.26	1.97	-2.91	3.00	157
Interruptee	-0.81	1.58	-2.91	3.00	170
Difference	1.04	2.56	-5.91	5.91	157

²⁴⁵ Note, however, that in 2014 and 2015, Martin-Quinn scores measure the average of the Court as mildly liberal, at -0.19 and -0.24, respectively, as Kennedy scores as mild to moderately liberal, with a score of -0.29 and -0.45, respectively. This is contrary to popular views of the Court, which emphasize half a century of a majority of Republican appointees, as well as a right shift in doctrine—see e.g. Richard Primus, *The Supreme Court’s Conservative Run Is Over*, June 28, 2016 <http://www.politico.com/magazine/story/2016/06/supreme-court-abortion-decision-rightward-run-over-213996> (claiming that the Court has in recent decades “moved the law rightward on private property, church and state, federal power, firearms regulation, criminal procedure and administrative governance.”). We believe this is a result of changes in the case selection in any given Term, not actual changes in Justice Kennedy’s ideology.

<i>2015</i>					
	Mean	Std. Dev.	Min	Max	Observations
Interrupter	-0.29	1.25	-2.51	1.53	171
Interruptee	-1.36	1.36	-2.51	1.53	214
Difference	1.00	2.12	-4.03	4.03	171

The ideological difference score confirms the categorical results above, when looking just at conservative versus liberal. In 2002 and 2015, the direction of interruptions is strongly one of more conservative Justices interrupting less conservative Justices—not simply across the liberal-conservative divide, but overall. The size of the difference is approximately 1 on the Martin–Quinn scale—that is equivalent to half a standard deviation of the entire variation of the Court since 1937. To put this in context, that is bigger than the ideological distance between Justices Kennedy and Breyer in 2015—a very big difference indeed.

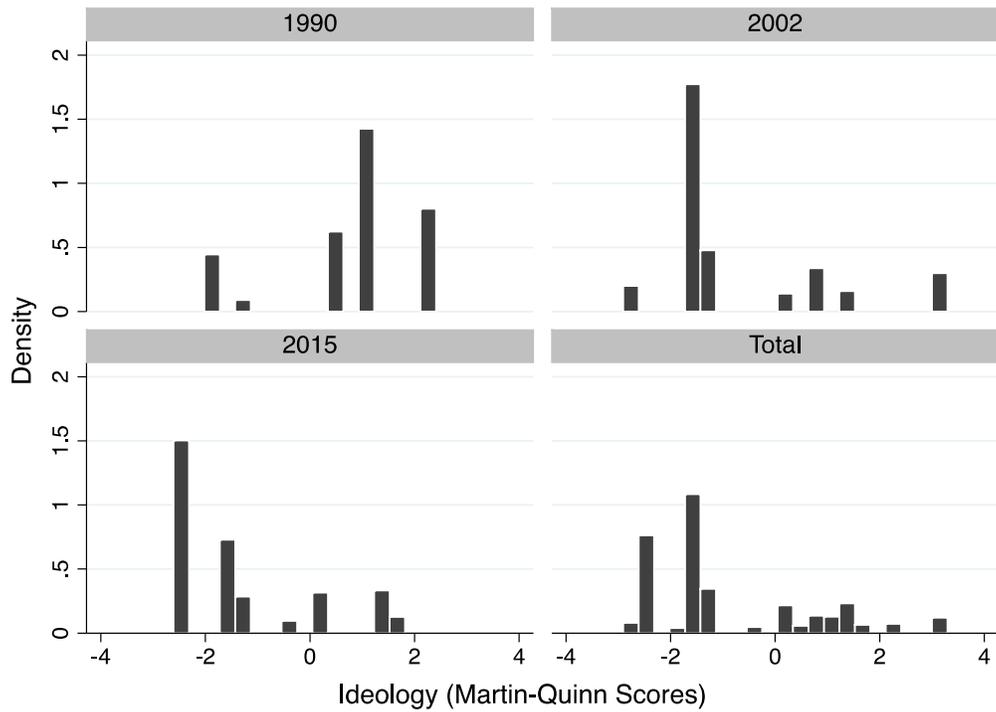
That difference does not arise in 1990, in fact the effect in that year is reversed—that is, liberals interrupt conservatives slightly more than vice versa. Given the lower number of observations, we do not want to put too much significance on this variation. Note however that the effect in 1990 is not simply a product of the fact that O’Connor is conservative—i.e. it is not just a gender effect overwhelming the political effect—because even if we take O’Connor out of the analysis, the effect persists.²⁴⁶ However, it remains small either way.

For this analysis, we are not limited to simply examining averages; rather, we can effectively look Justice-by-Justice, in terms of ideological positions. Figure 16 shows the frequency of being the interruptee and Figure 17 looks at the ideological distribution of interrupters.

²⁴⁶ 1990 Without O’Connor.

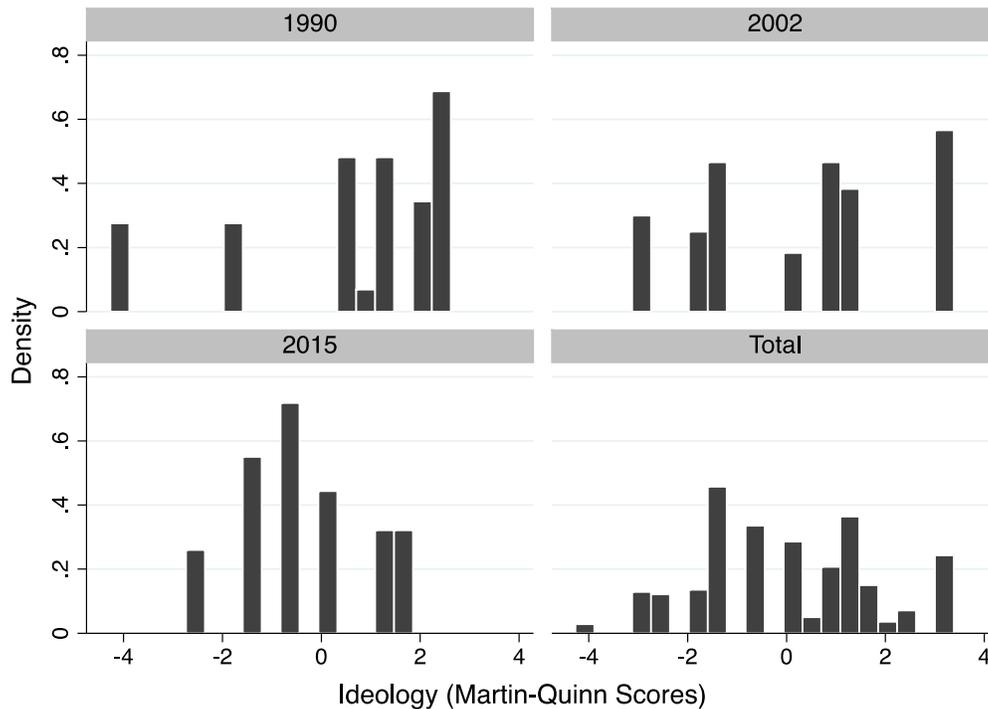
	Mean	Std. Dev.	Min	Max	Observations
Interrupter	0.44	2.24	-4.27	2.36	28
Interruptee	0.76	1.46	-1.79	2.36	28
Difference	-0.33	3.06	-6.63	4.15	28

Figure 16: Frequency of being Interruptee, by ideology



In Figure 16, the tallest bar in each Term is a female Justice—O'Connor in 1990, Ginsburg in 2002 and Sotomayor in 2015. We see a leftward tilt in interruptees in 2002 and 2015, and a rightward tilt in 1990—this tracks the ideological positions of the women on the Court. This strongly suggests that gender has a very strong effect, even accounting for ideology. But it also suggests that the effect of gender might be combined with the effect of seniority, since it is the most junior female Justice in each Term who has been interrupted by far the most. We test the effect of seniority below.

Figure 17: Frequency of being Interrupter, by ideology



When looking at interrupters, the spread is much more even in terms of ideology. In 1990, Roberts was particularly active, and in 2015 Kennedy was the most active. But overall, while there is a rightward tilt—further confirming the greater tendency of conservatives to do the interrupting—the effect is small and overall the shapes are not significantly different from uniform distributions. Consequently, it looks like ideology is important, but a lot of the action in interruptions is being driven by the interruptee being female, more than the ideological distance between interruptee and interrupter. The next section attempts to further disentangle the effect of ideology and gender.

G. *The Interaction of Ideology and Gender*

Before we look at the interaction between ideology and gender, we test whether gender and ideology, separately, are significant, and we find each is. The correlation between a female interrupter and a female interruptee is -0.18—women do not interrupt women very much—and the p-value is 0.000.²⁴⁷ That is, the difference between the genders is well less than 1% chance of being a product of random variation. The correlation between a liberal interrupter and a liberal interruptee is -0.15—similarly, liberals do not interrupt liberals very often— and the p-value is 0.004.²⁴⁸ Once again, there is less than 1% chance of this being a random effect. The slightly larger size of the gender effect and its slightly stronger significance than ideology is not significant—the differences are very minor—but the fact that gender and ideology are equivalent in their effect is a huge result for gender, confirming the effects found above for the Roberts Court. Given the enormous empirical literature showing the effect of ideology or judicial behavior and the dearth of research

²⁴⁷ Female in this context is a binary variable wherein 1 = female and 0 = male.

²⁴⁸ Liberal in this context is a binary variable wherein 1 = liberal and 0 = conservative.

undertaken regarding gender in this context, showing that gender is at least equivalent to ideology is a very powerful result.

Next, we consider the two variables together. We look at the correlation between interrupting someone of the same gender versus of the opposite gender, and the same for ideology, kindred ideological spirits versus ideological opponents.

Table 18: Interruptions within and across gender and ideology

Table 18A: Interruptions within and across gender

	Freq.	Percent
Same Gender	250	59.24
Cross Gender	172	40.76
Total	422	100

Table 18B: Interruptions within and across ideology

	Freq.	Percent
Same Ideology	153	36.87
Cross Ideology	262	63.13
Total	415	100

Table 18C: Interruptions within and across gender and ideology

	Same Ideology	Cross Ideology	Total
Same Gender	80	91	171
Cross Gender	73	171	244
Total	262	153	415

Table 18 shows the occurrence of interruptions, varying by same-gender and same-ideology versus opposing-gender and opposing-ideology. On raw numbers, simply comparing Tables 18A and 18B, it may look like ideology matters more than gender, since cross-ideological interruptions account for 63% of interruptions, whereas cross-gender interruptions account for only 41% of interruptions. However, this is misleading because there has been a far more evenly distributed range of ideological views on the Court compared to the gender distribution. More telling other comparisons in Table 18C: when both the ideology and the gender of the Justices are opposed, we witness 41% of the interruptions, whereas when both are aligned, we see only 19% of interruptions occurring. This shows that ideology and gender seem to work together in an interactive effect.

This conclusion is confirmed by Table 19, which summarizes the correlations between these categories, and the level of significance.

Table 19: Correlation among and between ideology and gender

	Correlation	Significance
Female-Female, Same Ideology	0.02	0.84
Liberal-Liberal, Same Gender	-0.06	0.41
Female-Female, Cross Ideology	-0.31	0.00
Liberal-Liberal, Cross Gender	-0.24	0.00

Tables 18 and 19 show that interruptions occur most frequently when gender and ideology are both different. When gender is the same and ideology is the same, there is no significance in the correlation between either variable. But when gender is the same and ideology is different, there is a strong and statistically significant negative coefficient: that is, ideology has a large and significant effect even within gender groups, in the direction of interrupting an ideological opponent. Similarly, when gender is different but ideology is the same, once again there is a strong and statistically significant coefficient: that is, gender has a large and significant effect even within ideological brethren, in the direction of interrupting a person of the opposite sex.

This shows two important things: first, the importance of not relying simply on Roberts Court data, where there is no variation between ideology gender; second, that people interrupt those who are different from them. Table 19 illustrates that any difference in gender and ideology can each in fact dominate each other’s similarities—difference in one trumps any alignment in the other—and that when the two are combined, the tendency to interrupt is at its pinnacle. As such, rather than seeing gender and ideology as competing explanations for interruptions, we see that they actually work together. The Justices tend to interrupt those who are least like them, be it division by gender or by ideology. Furthermore, we see that for each of these two key variables, the effect has a distinct direction, of men interrupting women and conservatives interrupting liberals. This effect is even stronger when combined, and we see that the strongest effect is of conservative men interrupting liberal women. Accounts that only look to the Roberts Court will necessarily miss this important effect.

H. Seniority

Our final hypothesis concerns the effect of seniority. This could be significant in two ways. First, seniority could have an effect of itself, potentially mitigating interruptions of a given Justice over time—that is, more senior Justices may get more respect in the form of less interruptions. Second, seniority could also have an effect in terms of dampening the effects of cross-gender and cross-ideological division in encouraging interruptions.

First, we look at the tendency of a Justice to interrupt someone more or less senior than oneself. To do this, we again use our variable that deducts the seniority of the interruptee from the interrupter, which we call ‘more-less,’ to distinguish it from our second variable, ‘less-more,’ which measures the opposite, junior Justices interrupting senior Justices. The results are presented in Table 20.

Table 20: Interruptions by more and less senior Justices

Term	<i>Seniority</i>			Total
	Advocate-Justice	Less-More	More-Less	
1990	0	15	23	38
2002	13	51	106	170
2015	43	47	123	213
Total	56	113	252	421

Clearly, more senior Justices are more likely to interrupt junior Justices, than vice versa. As we have seen previously, at the total number of interruptions increases over time, so do most of the subcategories in terms of seniority. The only exception is that junior Justices interrupting senior Justices peaked in 2002, but the difference between 2002 and 2015 is negligible.

In every year, the rate of senior to junior interruptions outweighs the rate of junior to senior interruptions, and in 2002 and 2015 that difference was more than twofold. This shows that seniority, which was shown to be statistically significant but substantially insignificant in the Roberts Court, may seem insignificant compared to gender ideology but is actually reasonably robust over time.

By way of comparison, Table 20 includes the rate of interruptions by advocates, which is also increasing, to the point where it is almost the same as the rate at which the junior Justices interrupt the more senior Justices. This suggests that whereas the norm of advocates not interrupting the Justices seems to be breaking down—as discussed this may be a product of more women on the Bench and the disrespect male advocates lend them—the norm of greater deference by junior Justices to senior Justices remains relatively strong. We do see an increasing number of interruptions by junior Justices of senior Justices, but it is far outpaced by the increase of the reverse. Respect for seniority, then, remains reasonably strong, albeit in the context of increased interruptions generally.

To see the size of the effect, Table 21 and Figure 18 presents seniority as a continuous variable, rather than a dichotomous variable, assessing the means and standard deviations in number of years' difference between the Justices interrupting and those being interrupted.

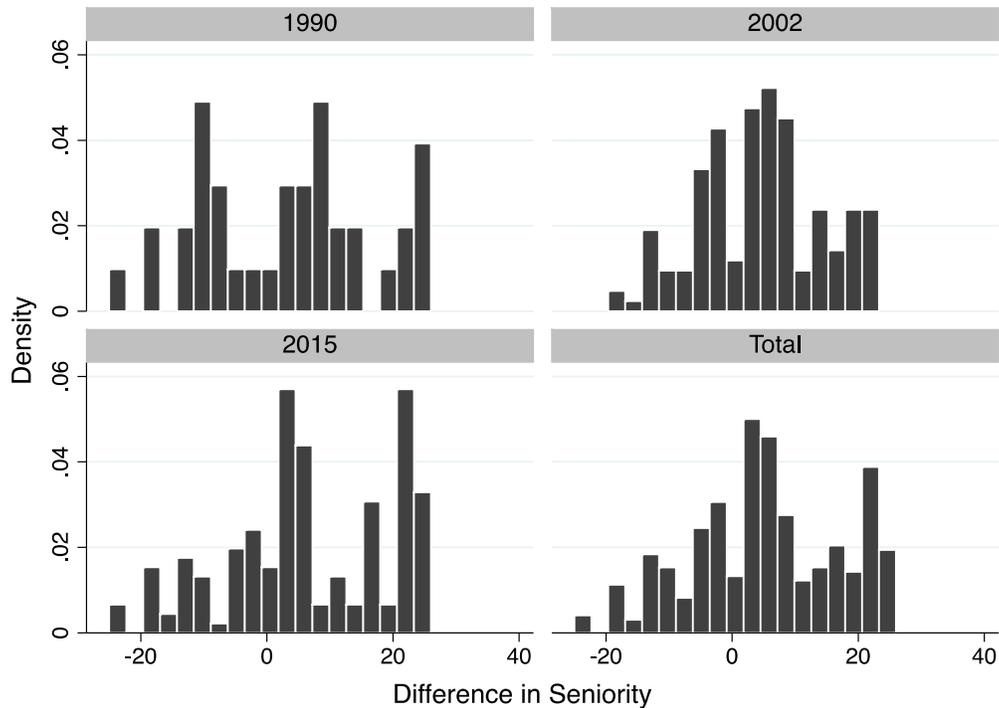
Table 21: The Size of Seniority Effect on Interruptions

	Mean	Std. Dev.	Min	Max	Observations
1990	2.82	13.53	-24	26	38
2002	4.48	9.49	-19	22	157
2015	6.52	12.76	-25	25	170
All Years	5.26	11.59	-25	26	365

In every year, the seniority variable is positive, indicating that on average interruptions tend to be by senior Justices of junior Justices. The size of this effect is increasing over time, but we

cannot safely conclude that means the seniority norm is growing stronger, because the variation of the age of the Court is increasing over time: in 2015, there were multiple Justices in their eighties and multiple Justices in the fifties. In fact, this conclusion is belied by the minimums and maximums in Table 21: at least one Justice 25 years senior to another Justice is nonetheless interrupting him or her.

Figure 18: Interruptions by Difference in Seniority



When we look more closely at the breakdown by seniority in Figure 18, which provides histograms to see the frequency of interruptions by seniority, we see that the effect of seniority is quite small, particularly relative to our other two variables, gender and ideology. As before, there is an overall rightward tilt, indicating that more senior Justices do interrupt more junior Justices more often than the reverse, but the spread is not particularly skewed.

To check the interaction between the effect of seniority and that of gender, we conduct the same test using correlations across and within categories.

Table 22: Female to Female Pair-wise correlation with Seniority

	Correlation	Significance
Female-Female, Less-More Senior	-0.04	0.65
Female-Female, More-Less Senior	-0.17	0.01

In Table 22, the correlation between gender and less-more senior is in no way significant, but it is highly significant and negative when we correlate within gender and more-less senior. That

is, when juniors are interrupting seniors, there is no correlation with gender, but when seniors are interrupting juniors there is a strong negative correlation with gender. This supports the idea that senior male Justices are interrupting junior female Justices, but it does not tell us whether seniority is a separate cause of interruptions or if it is simply closely linked to gender. But the fact that the seniority effect is quite small whereas the gender and ideology effects are very large and highly statistically significant strongly suggests that it is very unlikely that the strong effect of gender is being driven by seniority. More likely, while there is still a seniority norm, it may be exaggerated by the effect of gender. This confirms the impression from the Roberts Court which showed that the effective seniority can disappear with the introduction of gender into the regressions. As such, we conclude that there is a seniority effect, but it is definitely tertiary, well behind the effect of gender and ideology.

V. Conclusion: Implications and Recommendations

Our findings clearly establish that women on the Supreme Court speak less than men during oral arguments but are interrupted at a markedly higher rate. Additionally, both male justices and male advocates interrupt women more frequently than they interrupt other men. In other words, women are more likely to be the interruptee, while men are more likely to be the interrupter. While gender is certainly a significant factor affecting these interruptions, it is not the only one influencing the interruptions. Our findings indicate that ideology and seniority also play a role in the interruptions between the justices. Much like gender, ideology was a significant variable, while seniority was less significant. Interruptions are more likely to occur across ideological lines, and in particular, conservatives are more likely to interrupt liberals than vice versa. Furthermore, ideology has an effect not just categorically but also as a continuum, supporting the view that justices are not simply partisans but rather disagree over substantive outcomes. A more senior justice is slightly more likely to interrupt a junior justice than the reverse, but while statistically significant, the effect is small. Furthermore, these three variables do not operate in isolation. Not only do the three variables compound, such that senior male conservative justices are far more likely to interrupt junior female liberal justices, but also to some extent seniority mitigates the gender effect. However, this does not occur in terms of senior Justices receiving more deference; rather, we have seen that with time female justices learn to stop using the female register, in particular by using framing words such as “may I ask,” which primarily operates to give men an opportunity to interrupt.

Based on the fact that the Robert’s Court includes three women, all of whom are liberal, gender and ideology cannot be rigorously disentangled, and so results that rest only on analysis of the Roberts Court, or of the Court excluding Justice O’Connor, cannot be considered reliable. When considering the 2002 and 1990 Terms, when O’Connor was a moderate conservative, the same results arose—gender, ideology and seniority are all significant predictors of interruptions, although seniority once again was revealed to be less substantially salient. The fact that gender, ideology, and seniority all influence interruptions amongst the justices is extremely significant because interruptions of this kind constitute a breach of norms of equality (gendered interruptions), neutrality (ideologically driven interruptions), but show that traditional power dynamics (seniority effect) still have some impact.

It is essential that women have an equal opportunity to question advocates, for many reasons. This Article does not directly examine the outcome effects of these interruptions, but given

that others have shown that oral arguments can shape case outcomes,²⁴⁹ it follows that this pattern of interruptions that there is a marked difference in the relative degree of influence of the women and the men on the Court. As others have noted, the discussions at oral argument serve many purposes, including: focusing the justices' minds, helping them gather information to reach decisions as close as possible to their desired outcomes, helping them make informed decisions, and providing an opportunity to communicate and persuade their colleagues.²⁵⁰ When a Justice is interrupted during her questioning, her point is often left unaddressed. Without being able to ask her question, and without receiving an answer, the interruptee may be inhibited from using this point to persuade her colleagues. Because women, liberals, and junior Justices are all interrupted at significantly higher rates than the other members of the Court, this could ultimately lead to more conservative coalitions, and potentially, more conservative decisions, and reduction in the influence of women and younger Justices. It could make it much harder for women to make arguments and win votes during the post-conference process. At the very least, a woman's unequal opportunity to ask questions and complete statements during oral arguments could make it far more difficult for women to gather their thoughts, engage with the advocates, and clarify points that were disputed in the briefs.

Our findings, however, do not just reveal potential implications for the Court, but also for our society. After all, the oral argument process is the only opportunity for outsiders to directly witness the behavior of the Justices of the highest court. The Justices not only interpret our nation's laws, they are also role models. While these interruptions occur during *arguments*, one should still expect to find reasonable discourse conducted in civil fashion at this elite level. Our findings that female justices are consistently interrupted more than their male counterparts in this setting shows that gender dynamics are robust enough to persist even in the face of high levels of power achieved by women. Furthermore, our findings that there is a gender disparity on our nation's highest Bench adds strength to Zimmerman and West's theory²⁵¹ that micro-level interactions between the genders are microcosms for a much larger issue—society's apparent gender-based hierarchy. The same applies to our findings on ideology—the dominance of Republican appointees to the Court in recent decades has translated to liberals being regularly interrupted at much higher rates than their conservative counterparts. The fact that both of these behaviors are mirrored by advocates is particularly problematic.

With all of these implications in mind, we have a few recommendations. First, we recommend raising awareness of this issue through more studies like this and that of Feldman and Gill,²⁵² because both men and women need to be cognizant of these occurrences. For the obvious reasons, men need to recognize that this occurs in order to change their behaviors, while women need to fight it or adapt. Our evidence that the female justices already appear to be learning lends credence to this possibility but does not satisfy us. Greater understanding of the effects we have identified should result not just in women refraining from framing their questions in less forceful terms, but ideally would lead to all Justices, and the advocates, changing their gendered behavior. Second, there could be better enforcement by the Chief Justice, something that also would be aided by the Chief Justice being aware of the phenomenon. The Chief should also enforce the existing rule that prohibits advocates from interrupting the Justices, as this would set an example for the

²⁴⁹ Johnson et al, *supra* note 59.

²⁵⁰ See *infra* Part II.A.

²⁵¹ Zimmerman & West, *supra* note 90.

²⁵² *Supra* note 77.

advocates, the public who watches or listens to the argument, and quite possibly even the other Justices. The Chief Justice could also be more assertive in preventing an interrupter—even an interrupting Justice—from continuing with his question and direct the advocate back to the interruptee, or could allow the interrupter to ask the question and after the advocate answers, give the floor back to the interruptee. Either way, the Chief could referee the floor more to make sure the interruptee’s question is addressed. In this regard, it is interesting to note that during his Senate confirmation hearing in 2005, Chief Justice Roberts analogized the role of a Supreme Court Justice to that of an umpire, stating that “the role of an umpire and judge is critical. They make sure everybody plays by the rules.”²⁵³ Chief Justice Roberts does fill this role sometimes, but he should apply this mindset more consistently by making the conservative male justices play by the rules like everyone else.

²⁵³ *Confirmation Hearing on the Nomination of John G. Roberts, Jr. to be Chief Justice of the United States*, 109th Cong 55 (2005) (Statement of John G. Roberts, Jr.).