

JUSTICE, INTERRUPTED: THE EFFECT OF GENDER, IDEOLOGY, AND SENIORITY AT SUPREME COURT ORAL ARGUMENTS⁺

Tonja Jacobi^{*} and *Dylan Schweers*[†]

Oral arguments at the U.S. 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 highly ideological, not only because ideological foes interrupt each other far more than ideological allies do, but also because, as we show, 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

⁺ The authors thank Professor Matthew Sag, Katy Heerwagen, Kyle Rozema, and Wade Formo for their invaluable help. We also thank participants at the Northwestern University Pritzker School of Law faculty workshop series, the Ostrom Workshop at Indiana University, Bloomington, and Emory Law School's faculty colloquium for their feedback.

^{*} Professor of Law, Northwestern University Pritzker School of Law, t-jacobi@law.northwestern.edu.

[†] J.D., Northwestern University Pritzker School of Law, 2017, d-schweers2017@nlaw.northwestern.edu.

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.

INTRODUCTION.....	1381
I. THEORY AND LITERATURE OF INTERRUPTIONS.....	1389
A. <i>First Impressions</i>	1389
B. <i>Interruptions at Oral Arguments</i>	1392
1. <i>The Significance of Oral Arguments</i>	1392
2. <i>Behavior at Oral Arguments</i>	1395
C. <i>Gender and Power at Oral Arguments</i>	1400
1. <i>Empirical Evidence of the Gender of Interruptions</i>	1401
2. <i>The Effect of Power on Gender in Interruptions</i>	1402
3. <i>Illustrations of Gendered Interruptions</i>	1405
D. <i>Ideology at Oral Argument</i>	1414
1. <i>Illustrations of Ideological Interruptions</i>	1422
E. <i>Seniority at Oral Argument</i>	1424
1. <i>Examples of Seniority in Interruptions</i>	1426
II. EMPIRICAL ANALYSIS 1: THE ROBERTS COURT	1429
A. <i>Descriptive Data</i>	1429
B. <i>Regression Analysis</i>	1448
1. <i>The Roberts Court</i>	1450
2. <i>Beyond the Roberts Court</i>	1452
III. EMPIRICAL ANALYSIS 2: THE COURT OVER TIME.....	1456
A. <i>Gender Effects—Interruptions in Aggregate</i>	1457
B. <i>Adjusting for the Gender Gap on the Court</i>	1462
C. <i>Interrupting Behavior—Individual Justices and Advocates</i> <i>in Aggregate</i>	1464
D. <i>Justice Interactions—Pairwise Behavior</i>	1467
E. <i>Interruptions by Ideology—Conservatives v. Liberals</i>	1470
F. <i>Ideological Distance of the Justices</i>	1473
G. <i>The Interaction of Ideology and Gender</i>	1476
H. <i>Seniority</i>	1479
CONCLUSION: IMPLICATIONS AND RECOMMENDATIONS	1482

INTRODUCTION

In a *New York Times* article discussing Senator Mitch McConnell's silencing of Senator Elizabeth Warren on the U.S. 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 Similarly, when Senator Kamala Harris was repeatedly interrupted by her male colleagues when questioning Attorney General Jeff Sessions, the *Boston Globe* declared simply: "To be a woman is to be interrupted."³ These acts of men silencing women were performed on the Senate floor, confirming research that the legislative branch is not immune to the gender inequalities that exist in society generally.⁴ 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

¹ Susan Chira, Elizabeth Warren Was Told to Be Quiet. Women Can Relate., N.Y. Times: Opinion (Feb. 8, 2017), https://www.nytimes.com/2017/02/08/opinion/elizabeth-warren-was-told-to-be-quiet-women-can-relate.html?_r=0.

² Id.

³ Renée Graham, Once Again, Women Get 'Maninterrupted,' Bos. Globe (June 15, 2017), http://www.bostonglobe.com/opinion/2017/06/15/once-again-women-get-maninterrupted/3uGtxwnjlgConf08qHVnN/story.html?s_campaign=bostonglobe%3Asocialflow%3Afacebook.

⁴ See Victoria L. Brescoll, Who Takes the Floor and Why: Gender, Power, and Volubility in Organizations, 56 Admin. Sci. Q. 622, 622 (2011) (showing "a strong positive relationship between power and volubility for male senators, but a non-significant relationship for female senators" that is explained by women's correct anticipation "that being highly voluble will result in negative consequences (i.e., backlash)" by both male and female perceivers). Interruptions in the legislative sphere have also been shown to have policy impacts. See Tali Mendelberg & Christopher F. Karpowitz, More Women, but Not Nearly Enough, N.Y. Times: Campaign Stops (Nov. 8, 2012, 8:52 PM), <https://campaignstops.blogs.nytimes.com/2012/11/08/more-women-but-not-nearly-enough/> [https://perma.cc/6BC8-DUT3] (describing findings that female legislators "were more likely to be rudely interrupted; they were less likely to strongly advocate their policy preferences; and they seldom mentioned the vulnerable. These gender dynamics held even when adjusting for political ideology (beliefs about liberalism and egalitarianism) and income").

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 v. Peterson*,⁵ Justice Ruth Bader 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 Anthony Kennedy, who said, “Well, suppose there were three unrelated cases.”⁶ Lamken responded, “Pardon?” and Kennedy restated his comment and then asked a question.⁷ He and the advocate had a back-and-forth exchange before Kennedy acknowledged, “I--I inadvertently interrupted Justice Ginsburg” But rather than ceding the floor to Ginsburg, Kennedy continued with his inquiry.⁸ This is just one of numerous examples from the 2015 Term where a male Justice interrupted a female Justice.⁹

We find that male Justices have been interrupting female Justices in this manner for a long time. We examine the Roberts Court, using publicly available data, as well as earlier Terms, 1990 and 2002, using a secondary database we created by hand coding all interruptions in every case during those Terms. We also hand coded the 2015 Term, which allows us to compare the two databases to check that the coding is consistent. The hand-coded data allows us to study in depth three different periods of the Court when one, two, and three female Justices, respectively, sat on the previously exclusively male Bench. Together, 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 male Justices acknowledge interrupting other men but very few occasions where a Justice acknowledges interrupting a woman.

⁵ 136 S. Ct. 1310 (2016).

⁶ Oral Argument at 0:56, *Bank Markazi*, 136 S. Ct. 1310 (No. 14-770), <https://www.oyez.org/cases/2015/14-770> [<https://perma.cc/G5CP-WMHJ>].

⁷ Id. at 0:57.

⁸ Id. at 1:26.

⁹ See *infra* Section I.C.

2017] *Interactions at Supreme Court Oral Arguments* 1383

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, or explains to a third party what the woman is trying to say.¹⁰ An example of the latter, from the 2002 Term, is seen in *Boeing Co. v. United States*:¹¹

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?¹²

This exchange illustrates two things. First, notwithstanding the recent attention given to “mansplaining,” it has been occurring for decades.¹³ 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 arguments at a significantly higher rate.¹⁴ Men interrupt more than women, and they particularly

¹⁰ See Rebecca Solnit, *Men Who Explain Things*, L.A. Times, April 13, 2008, at M4 (heralding contemporary interest in the phenomena by describing a man interrupting her to explain her own book to her).

¹¹ 537 U.S. 437 (2003).

¹² Oral Argument at 30:57, *Boeing*, 537 U.S. 437 (No. 01-1209), <https://www.oyez.org/cases/2002/01-1209> [<https://perma.cc/Q2DR-YHSQ>].

¹³ See Lily Rothman, *A Cultural History of Mansplaining*, Atlantic: Sexes (Nov. 1, 2012), <https://www.theatlantic.com/sexes/archive/2012/11/a-cultural-history-of-mansplaining/264380/> [<https://perma.cc/J4SL-WEX2>] (describing the history of both the term and the practice that preceded the term by many decades).

¹⁴ See *infra* Section III.C.

interrupt women more than they interrupt other men.¹⁵ This effect is not limited to the male Justices, as our research shows the male advocates also regularly interrupt the female Justices. This is surprising, both because the Court's guidelines explicitly prohibit advocates from interrupting Justices,¹⁶ and because the Chief Justice manages the oral argument and is in a position to intervene when this occurs. We see a clear example of the Chief Justice intervening in *Wiggins v. Smith*.¹⁷

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.¹⁸

In contrast, in *American Insurance Ass'n v. Garamendi*,¹⁹ Chief Justice Rehnquist 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.²⁰

¹⁵ See Lynn Smith-Lovin & Charles Brody, Interruptions in Group Discussions: The Effects of Gender and Group Composition, 54 Am. Soc. Rev. 424, 432 (1989) (finding men interrupt women more than they interrupt other men, and, overall, men interrupt women more than women interrupt men).

¹⁶ "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." Clerk of the Court, Guide for Counsel in Cases to Be Argued Before the Supreme Court of the United States 9 (2015) [hereinafter Guide for Counsel].

¹⁷ 539 U.S. 510 (2003).

¹⁸ Oral Argument at 17:33, *Wiggins*, 539 U.S. 510 (No. 02-311), <https://www.oyez.org/cases/2002/02-311> [<https://perma.cc/BY6L-WNL8>].

¹⁹ 539 U.S. 396 (2003).

²⁰ Oral Argument at 16:36, *Garamendi*, 539 U.S. 396 (No. 02-722), <https://www.oyez.org/cases/2002/02-722> [<https://perma.cc/UZK2-GC7Z>].

2017] *Interactions at Supreme Court Oral Arguments* 1385

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 raise 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*,²¹ provides some insight into that question, as Justice Antonin Scalia blatantly interrupts Justice Sonia 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--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.²²

Given that Justices are permitted to, 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

²¹ 136 S. Ct. 2198 (2016).

²² Oral Argument at 1:29:17, *Fisher*, 136 S. Ct. 2198 (No. 14-981) [hereinafter *Fisher Oral Argument*], <https://www.oyez.org/cases/2015/14-981> [<https://perma.cc/SG5F-PVFP>].

post-conference, and the most junior Justice has to open the door and take notes at the conference.²³ 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, 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 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 female Justices on the Roberts Court were also the two most junior Justices until 2017. 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, we show that 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. For this analysis, we are able to go even further back in time, to the entry onto the Court of the first female Justice, Justice Sandra Day O'Connor.²⁴ We are able to pinpoint shifts in the way women ask questions on the Bench. We find evidence that all four 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 use²⁵ to avoid being interrupted as regularly.

Very little attention has been paid to the effect of ideology in shaping judicial behavior during oral arguments, despite the enormous and still growing literature establishing the effect of ideology on other forms of judicial behavior.²⁶ Still, scholars have shown that ideology is relevant to

²³ Lincoln Caplan, *The Junior Justice*, Am. Prospect, Spring 2015, at 56, 59 (reporting Justice Kagan’s description of being the “Junior Justice”).

²⁴ As described below, we do not yet have interruptions data going back so far in time, but we do have the text of Supreme Court oral arguments going back all the way to 1960. See *infra* Section II.A.

²⁵ See *infra* Section I.C.

²⁶ See *infra* Section I.D.

oral arguments²⁷ and that a Justice is more likely to interrupt an advocate who is arguing a position to which a Justice is ideologically opposed.²⁸ 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 more like outcome-based disputes between Justices with a variety of views who are not simply polarized along partisan lines. Second, we expect that interruptions, commonly recognized as assertions of dominance, occur more across party lines than within ideological camps, but will the effect be symmetrical? Whether there are innate differences between liberals and conservatives or not,²⁹ Republicans have dominated the Court for the last half-century, both in terms of appointments and in terms of the ideological spectrum of the Court.³⁰ As such, we may see differences between conservative and liberal judicial behavior. Third, the fact that interruptions of the advocates are increasing is no secret,³¹ 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 1994.³² Alternatively, some have

²⁷ Timothy R. Johnson, Paul J. Wahlbeck & James F. Spriggs, II, *The Influence of Oral Arguments on the U.S. Supreme Court*, 100 *Am. Pol. Sci. Rev.* 99, 110–11 (2006) [hereinafter Johnson et al., *The Influence of Oral Arguments*].

²⁸ See *infra* Section I.D.

²⁹ See, e.g., Ryota Kanai et al., *Political Orientations Are Correlated with Brain Structure in Young Adults*, 21 *Current Biology* 677, 677–78 (2011) (finding that conservatives and liberals had different brain structure, with conservatives having larger amygdalas, associated with fear responses, and liberals having larger anterior cingulate cortexes, associated with tolerance to uncertainty).

³⁰ See *infra* Section III.G.

³¹ Barry Sullivan & Megan 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, 1067 (showing an increase in judicial interruptions of advocates).

³² *Political Polarization in the American Public: How Increasing Ideological Uniformity and Partisan Antipathy Affect Politics, Compromise and Everyday Life*, Pew Res. Ctr.: U.S.

pointed to the entrance of Justice Scalia in 1986 as being the catalyst for increasing disruption on the Court.³³ 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.

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 I develops the background to our inquiry, presenting the theories behind each of our three key hypotheses and presenting a review of prior studies 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 literature draws on psychology and linguistics research behind gender and interruptions in social and professional settings and political science research on ideology. In addition, we provide examples from oral argument transcripts for the potential impact of each factor. Parts II and III present our empirical results. In Part II, 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 III 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

Pol. & Pol'y (June 12, 2014) [hereinafter *Political Polarization in the American Public*], <http://www.people-press.org/2014/06/12/political-polarization-in-the-american-public/> [https://perma.cc/8EA7-Z22B] (finding that "ideological thinking is now much more closely aligned with partisanship [and] . . . ideological overlap between the two parties has diminished" since 1994).

³³ See *infra* Section I.D.

2017] *Interactions at Supreme Court Oral Arguments* 1389

consider the extent to which Justices learn. The Conclusion summarizes our findings and their implications, and provides recommendations for the Court.

I. THEORY AND LITERATURE OF INTERRUPTIONS

A. First Impressions

Anyone listening to Supreme Court 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.³⁴ As a professor 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 interruptions³⁵ in the 2015 Court Term looks like considered in terms of pairwise interruptions:

³⁴ Some commentators see it differently: NPR legal affairs correspondent Nina Totenberg, while acknowledging sexism in reporting of the nomination process, suggested that this sexism “seemed to change once the [J]ustices were sworn in[, stating,] ‘Once they put on that black robe . . . they become unisex.’” 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/> [<https://perma.cc/F8FB-P49J>]. Under this viewpoint, “[w]hen it comes to oral arguments, Totenberg doesn’t think . . . the [J]ustices focus on gender.” *Id.* Our results belie this claim.

³⁵ Later, we consider only interruptions of more than one second, to avoid potentially overcounting interruptions that could result from two people speaking almost simultaneously. See *infra* Part II.

Table 1: All Interruptions in 2015, by Justice-Pairs

Got Interrupted	Who Interrupted							
	Alito	Breyer	Ginsburg	Kagan	Kennedy	Roberts	Scalia	Sotomayor
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, women were interrupted far more often 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 disproportionate rate of the female Justices being interrupted occurred despite the fact that there were only three women, compared to six men, on the Court, and, if interruptions were gender-blind, we would expect twice as many interruptions of men at any given threshold.³⁶ Also, note that no woman interrupted any man in such high numbers during the entire 2015 Term. We wondered how typical was this behavior. Was 2015 a particularly contentious year, or are female

³⁶ Justice Thomas barely spoke and thus was not interrupted. We account for rates of speaking and number of speech episodes in our empirical analyses. See *infra* Parts II and III.

Justices, despite having reached the 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,³⁷ so we were alert to potential ideological causes of interruptions. Note from Table 1 that the two moderates³⁸ on the Court, Kennedy, the median, and John Roberts, the Chief Justice, were not interrupted at these high rates by any other Justice on the Court.³⁹ However, these two Justices are 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.⁴⁰

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, Justice Kagan and Justice Sotomayor, are more junior on the Court and that each is interrupted far more frequently than Justice Ginsburg. In addition, Table 1 provides some provisional support for the seniority hypothesis because of the most senior Justices—Ginsburg, Kennedy, Scalia, and Breyer—only Ginsburg and Breyer are interrupted at high rates.⁴¹ In contrast, the more junior Justices—Kagan, Sotomayor, and Alito⁴²—account for the other seven high interruption rates.

³⁷ See *infra* Section I.D.

³⁸ Note that both of these Justices are moderate conservatives. We describe how the ideological positions of the Justices are measured in Section I.D.

³⁹ Neither was Thomas, but for different reasons.

⁴⁰ Lee Epstein & Tonja Jacobi, *Super Medians*, 61 *Stan. L. Rev.* 37, 77 (2008) [hereinafter Epstein & Jacobi, *Super Medians*] (finding that Kennedy was in the majority 100% of the time during the 2006 Term).

⁴¹ The exceptional relationship between Scalia and Breyer is explored in Part II.

⁴² Roberts is of the same seniority as Alito but is the Chief Justice, which may prompt similar deference.

Thus, by examining interruption behavior just in the 2015 Court Term, we formed three key hypotheses: that gender, ideology, and seniority—or some combination of the three—explain the 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 Arguments

Despite the sizable literature devoted to understanding strategic judicial behavior,⁴³ there is surprisingly little research on how the justices use oral arguments—either sincerely to learn or more strategically to achieve their goals.⁴⁴ 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.⁴⁵ Research indicates that oral arguments serve various functions and can even affect the Court's ultimate decision.⁴⁶ Despite these findings suggesting the significance of oral arguments, little analysis, even within this narrow research band, has been dedicated to the interactions among the Justices during oral arguments. 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,”⁴⁷ this is a minority view. The majority of researchers have found that oral arguments can “focus the minds of the [J]ustices and

⁴³ Lee Epstein & Tonja Jacobi, *The Strategic Analysis of Judicial Decisions*, 6 *Ann. Rev. L. & Soc. Sci.* 341, 342 (2010) (summarizing the extensive literature of strategic judicial behavior).

⁴⁴ Johnson et al., *The Influence of Oral Arguments*, *supra* note 27, at 99, 112 (noting that research on judicial decision making has “ignored” oral arguments).

⁴⁵ See *id.* at 99–100; see also Thomas G. Walker & Lee Epstein, *The Supreme Court of the United States: An Introduction* 104 (1993) (describing the oral argument process).

⁴⁶ Johnson et al., *The Influence of Oral Arguments*, *supra* note 27, at 99.

⁴⁷ Jeffrey A. Segal & Harold J. Spaeth, *The Supreme Court and the Attitudinal Model Revisited* 280 (2002).

present the possibility for fresh perspectives on a case.”⁴⁸ Additionally, many studies have found that oral arguments help the Justices gather information,⁴⁹ 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.⁵⁰ Professor Barry Sullivan and Megan Canty outline the myriad functions served by oral arguments for both advocates and Justices.⁵¹ For the advocates, oral argument allows counsel to better emphasize what is important, crystallize relevant issues, and provide a platform to explain the issues to the public.⁵² For the Justices, the process facilitates informed decision making and serves as an opportunity to communicate and persuade their colleagues.⁵³

A study by Professors Timothy Johnson, Paul Wahlbeck, and James Spriggs took the significance debate further by researching whether oral arguments can actually influence the Justices’ votes.⁵⁴ Their findings strongly suggest that oral argument is a critical component of judicial decision making. Controlling for compelling alternative explanations, such as a Justice’s ideology, they found that the Justices do respond to the quality of oral argumentation.⁵⁵ Specifically, “the relative quality of the competing attorneys’ oral arguments influences the [J]ustices’ votes

⁴⁸ See, e.g., David M. O’Brien, *Storm Center: The Supreme Court in American Politics* 241 (7th ed. 2005); see also Johnson et al., *The Influence of Oral Arguments*, supra note 27, at 99; Sullivan & Canty, supra note 31, at 1011.

⁴⁹ See, e.g., William L. Benoit, *Attorney Argumentation and Supreme Court Opinions*, 26 *Argumentation & Advoc.*: J. Am. Forensic Ass’n 22 (1989); Timothy R. Johnson, *Information, Oral Arguments, and Supreme Court Decision Making*, 29 *Am. Pol. Res.* 331, 331–33 (2001); Stephen L. Wasby et al., *The Functions of Oral Argument in the U.S. Supreme Court*, 62 *Q.J. Speech* 410, 418–19 (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, 169 (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 questions).

⁵⁰ Timothy R. Johnson, *Oral Arguments and Decision Making on the United States Supreme Court* 55 (2004).

⁵¹ Sullivan & Canty, supra note 31, at 1024–25.

⁵² *Id.*

⁵³ *Id.* at 1024–27; see also Phillips & Carter, supra note 49, at 171 (discussing how Justices use oral arguments to signal their opinions).

⁵⁴ Johnson et al., *The Influence of Oral Arguments*, supra note 27, at 99–100.

⁵⁵ *Id.* at 108.

on the merits.”⁵⁶ 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 a higher quality oral argument than the opposing counsel.”⁵⁷ This shows that, 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 Warren have downplayed their impact.⁵⁸ Rehnquist noted, “[I]f an oral advocate is effective, how he presents his position during oral argument *will* have something to do with how the case comes out.”⁵⁹ Brennan agreed: “I have had too many occasions when my judgment of a decision has turned on what happened in oral argument”⁶⁰ Harlan said “there is no substitute” for oral arguments in “getting at the real heart of an issue and in finding out where the truth lies.”⁶¹ 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.”⁶² The Johnson et al. study confirms that the majority of Justices behave in a way that comports with the

⁵⁶ Id. at 109; 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 in criminal cases an attorney’s success rate is significantly linked to his or her level of experience and stating that, for example, a “defendant who is randomly assigned the tenth percentile public defender has a 14 percentage point greater chance of receiving incarceration than one assigned to the ninetieth percentile public defender”).

⁵⁷ Johnson et al., *The Influence of Oral Arguments*, supra note 27, at 110.

⁵⁸ Id. at 99–101, 99 n.1.

⁵⁹ William H. Rehnquist, *The Supreme Court: How It Was, How It Is* 276–77 (1992) (explaining Chief Justice William Rehnquist’s view on the importance of oral arguments).

⁶⁰ U.S. Comm’n on Revision of the Fed. Court Appellate Sys., *Structure and Internal Procedures: Recommendations for Change* 47 (1975).

⁶¹ Id.

⁶² James Iseler, *Justice Kagan Shares Supreme Court Insights During Law School Conversation*, U. Mich. Rec. Update (Sept. 10, 2012), <http://www.ur.umich.edu/update/archives/120910/kagan> [<https://perma.cc/64XS-5RSM>].

Rehnquist-Brennan-Kagan view that oral arguments matter; overall, they found that “nearly all [J]ustices are influenced by the quality of oral arguments.”⁶³

A recent interaction between Justice Kagan and an advocate, Michael A. Scodro, illustrates another potential impact of oral arguments on the decision-making process. In *Manuel v. City of Joliet*,⁶⁴ 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”⁶⁵ 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 oral arguments, interruptions of the advocates by the Justices are commonplace. There is only limited research on interruptions among the Justices, but what there is suggests that it is also common and has been increasing in recent terms.⁶⁶ 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 one study concluded that Justices use the proceedings to converse

⁶³ Johnson et al., *The Influence of Oral Arguments*, supra note 27, at 110.

⁶⁴ 137 S. Ct. 911 (2017).

⁶⁵ Oral Argument at 44:59, *Manuel*, 137 S. Ct. 911 (No. 14–9496), <https://www.oyez.org/cases/2016/14-9496> [<https://perma.cc/A24X-6F5U>].

⁶⁶ Sullivan & Canty, supra note 31, at 1045.

with one another.⁶⁷ Other studies consider that oral arguments serve as “pre-conferences,” especially during the Rehnquist era, where conferences were said to be short and ineffective.⁶⁸ Others have determined that oral arguments allow the Justices to make their cases to other Justices.⁶⁹ This description receives the concurrence of some of the Justices themselves. Justice Kennedy commented, “[During oral arguments] the Court is having a conversation with itself through the intermediary of the attorney.”⁷⁰ Additionally, Justice Scalia noted, “It isn’t just an interchange between--between counsel and each of the individual [J]ustices--um--what is going on is also to some extent an exchange of information among the [J]ustices themselves.”⁷¹ Given this, it follows that Justices would interrupt one another, as each tries to persuade one another and construct the basis for a coalition in favor of his or her 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).⁷² 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.⁷³ Though not the central focus of their study, they found that the Justices interrupted

⁶⁷ 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, 332 (2009) [hereinafter Johnson et al., *Pardon the Interruption*].

⁶⁸ See, e.g., David C. Frederick, *Supreme Court and Appellate Advocacy: Mastering Oral Argument* 5–6 (2003) (claiming that oral arguments provide opportunity for conversation between Justices that conferences do not); Johnson et al., *Pardon the Interruption*, supra note 67, at 333; Sullivan & Canty, supra note 31, at 1029.

⁶⁹ 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 [<https://perma.cc/94CC-9XJZ>]; see also David R. Gibson, *Opportunistic Interruptions: Interactional Vulnerabilities Deriving from Linearization*, 68 *Soc. Psychol. Q.* 316, 323, 329 (2005) (studying opportunistic interruptions in Supreme Court oral arguments and Pentagon press briefings); Sullivan & Canty, supra note 31, at 1045 (claiming that oral arguments are an opportunity for Justices to influence their colleagues’ opinions).

⁷⁰ *The Supreme Court Visitors Film at 21:55 (C-SPAN 1998)* (available at <https://www.c-span.org/video/?100767-1/supreme-court-visitors-film&start=1311>) [<https://perma.cc/52PM-TJH8>]; Johnson et al., *Pardon the Interruption*, supra note 67, at 335.

⁷¹ *This Honorable Court at 13:24 (PBS 1988)* (available at <https://www.c-span.org/video/?2514-1/upcoming-pbs-program-supreme-court&start=791>) [<https://perma.cc/5BYL-EH7E>]; see Johnson et al., *Pardon the Interruption*, supra note 67, at 335.

⁷² Sullivan & Canty, supra note 31, at 1018.

⁷³ *Id.* at 1019.

2017] *Interactions at Supreme Court Oral Arguments* 1397

each other more in the 2010–12 Terms than in the 1958–60 Terms.⁷⁴ Sullivan and Canty believe that this finding may arise because the Justices now get only one chance to speak during the post-conference, as opposed to two times in the earlier Terms.⁷⁵ Thus, consistent with previous studies, this suggests that Justices may now interrupt each other more often because there are fewer chances to persuade a colleague or form a coalition prior to voting. Sullivan and Canty's analysis on interruptions among 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 among the Justices. Johnson et al. counted the number of interruptions among the Justices across eight Terms.⁷⁶ An interruption was noted any time two or more Justices spoke back-to-back without an interjection or answer from an advocate.⁷⁷ 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.⁷⁸ 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%.⁷⁹ Johnson et al. believe this is a much smaller number than the media, advocates, or even the Justices presume.⁸⁰ Yet the more recent Sullivan and Canty study contradicts this conclusion, finding that interruptions among Justices are common and on the rise.⁸¹ Each of these studies only examines a few Terms of the Court, so answering this question more definitively requires analyzing more data: we looked at 14 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

⁷⁴ Id. at 1045.

⁷⁵ Id. at 1028 (stating that previously the Justices “would first give their views of the case, speaking in descending order of seniority, and then register their votes in the opposite order”).

⁷⁶ Johnson et al., *Pardon the Interruption*, supra note 67, at 331.

⁷⁷ Id. at 337–38.

⁷⁸ It also fails to account for other complexities in interruptions. See *infra* Part II.

⁷⁹ Johnson et al., *Pardon the Interruption*, supra note 67, at 338.

⁸⁰ Id.

⁸¹ Sullivan & Canty, supra note 31, at 1045.

interruptions.⁸² 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.⁸³ 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 addressed the “why” component in their conclusion when they suggested that Justices interrupt one another “to either enhance or hinder the learning process [during oral arguments] with an eye toward the coalition-formation process.”⁸⁴ While ideology may be one cause of Justice-to-Justice interruptions, many questions remain about other potential explanations.

In research conducted simultaneously with our own, Adam Feldman and Professor Rebecca Gill analyzed the effect of gender on Justice-to-Justice interruptions during the 2004–14 Terms, but focused on the effects on speech patterns.⁸⁵ Feldman and Gill found a similar effect to our analysis: that there is a power disparity between male and female Justices during oral argument, that female Justices are far more likely to be interrupted than male Justices,⁸⁶ and that gender is the most significant factor affecting interruptive behavior.⁸⁷ The focus of Feldman and Gill’s study is on the ramifications of these interruptions. They show that male interruptions of female Justices “minimize[] their potential to complete their questions and statements during oral argument,” and argued that “[t]he downstream effects of these findings are potentially vast.”⁸⁸

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. The Feldman and Gill study is limited to the 2004–14 Terms, and neither explores interruptions between advocates and Justices, nor examines a behavioral shift over time. We examine the Roberts Court

⁸² Johnson et al., *Pardon the Interruption*, *supra* note 67, at 350.

⁸³ *Id.* at 349.

⁸⁴ *Id.* at 350.

⁸⁵ Adam Feldman & Rebecca Gill, *Echoes from a Gendered Court: Examining the Justices’ Interactions During Supreme Court Oral Arguments* 15, 42 (Jan. 31, 2017) (unpublished manuscript) <https://ssrn.com/abstract=2906136> [<https://perma.cc/TS6Q-8Z46>].

⁸⁶ *Id.* at 61.

⁸⁷ *Id.* at 51.

⁸⁸ *Id.* at 51, 61.

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 Justices are liberal.⁸⁹ Furthermore, Feldman and Gill effectively drop 2004 by excluding O'Connor and Rehnquist.⁹⁰ As such, they exclude all instances of female conservative behavior on the Court, which puts serious limitations on their ability to draw conclusions about the relative impact of gender and ideology.⁹¹

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.⁹² However, as discussed above and below, there is reason to believe that seniority has more wide-ranging and complex effects.⁹³ Additionally, although Feldman and Gill control for freshman status, ideology, and voting patterns,⁹⁴ they do not analyze how these variables are interrelated 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,⁹⁵ but also the research on power and interruptions suggests that those with authority (the Justices) should never be interrupted.⁹⁶ 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, 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.

⁸⁹ See *infra* Part II for an explanation of how we measure this and further discussion of the importance of this difference.

⁹⁰ Feldman & Gill, *supra* note 85, at 46.

⁹¹ Discussed further in Part II.

⁹² Feldman & Gill, *supra* note 85, at 49–50.

⁹³ See *infra* Sections I.E and II.A.

⁹⁴ Feldman & Gill, *supra* note 85, at 51.

⁹⁵ Guide for Counsel, *supra* note 16, at 9.

⁹⁶ See *infra* Section I.C.

C. Gender and Power at Oral Arguments

Interruptions are considered rude because they break into a person's speech and thus hinder his or her expression,⁹⁷ and most people agree that they do not enjoy being interrupted.⁹⁸ Psychologists, linguists, and behaviorists have found, however, that there is more to interruptions than simple rudeness. Viewed through a psychological or sociological lens, interruptions are a "violation of a current speaker's right to complete a turn."⁹⁹ Research suggests that interruptions are attempts by speakers to maximize their power positions in group settings through assertions of dominance.¹⁰⁰ It follows that studies analyzing power dynamics between the genders often include discussions of interruptions.¹⁰¹ 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 among some of the most powerful individuals in the world—Justices on the U.S. Supreme Court.

⁹⁷ See Judith Martin, Do Not Pardon the Interruption, *Wash. Post: Arts & Living* (Aug. 28, 2005), <http://www.washingtonpost.com/wp-dyn/content/article/2005/08/27/AR2005082701151.html> [<https://perma.cc/ECF9-B32B>].

⁹⁸ 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: Women's Bus.* (Mar. 18, 2015, 12:00 PM), <http://www.telegraph.co.uk/women/womens-business/11479811/Work-advice-How-to-stop-anyone-interrupting-you-in-meetings.html> (offering practical recommendations to minimize interruptions); Connie Dieken, Enough. Stop Interrupting Me!, *Huffington Post: The Blog* (Dec. 16, 2012), http://www.huffingtonpost.com/connie-dieken/enough-stop-interrupting-_b_1968857.html [<https://perma.cc/P95D-QACL>] (explaining reasons for interruptions as well as offering practical preventative and response tactics).

⁹⁹ Don H. Zimmerman & Candace West, Sex Roles, Interruptions and Silences in Conversations, in *Language and Sex: Difference and Dominance* 105, 123 (Barrie Thorne & Nancy Henley eds., 1975).

¹⁰⁰ Julia A. Goldberg, Interrupting the Discourse on Interruptions: An Analysis in Terms of Relationally Neutral, Power and Rapport-Oriented Acts, 14 *J. Pragmatics* 883 (1990) (classifying interruptions as being power-driven or neutral displays of rapport).

¹⁰¹ See generally Zimmerman & West, *supra* note 99 (suggesting that interruptions and speech patterns can be indicative of institutionalized power dynamics); see also Smith-Lovin & Brody, *supra* note 15, at 425 (observing interruptions as an assertion of power between various gender dynamics).

1. Empirical Evidence of the Gender of Interruptions

Regardless of the context—group,¹⁰² one-on-one,¹⁰³ professional,¹⁰⁴ or social¹⁰⁵—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.¹⁰⁶ In 1975, Professors Don Zimmerman and Candace West studied public conversations between mixed-gendered groups and found that men were responsible for 46 of 48 interruptions.¹⁰⁷ In 2014, Professor Adrienne Hancock and Benjamin Rubin found that women are interrupted at a higher rate than men.¹⁰⁸ Hancock and Rubin monitored eight trained male and female communication partners in a controlled setting and observed 80 three-minute conversations among participants while transcribing and coding various behaviors such as interruptions, hedging, self-references, and justifiers.¹⁰⁹ Interestingly, the speaker's gender did not produce significant changes in language, but participants of both genders used more dependent clauses when speaking with women, and when a participant was speaking with a woman, he or she was more likely to interrupt than when the same person was speaking with a man.¹¹⁰ This finding was consistent for both male and female interrupters: both genders interrupt women more than men.

¹⁰² Leonard Karakowsky et al., Gender, Perceived Competence, and Power Displays: Examining Verbal Interruptions in a Group Context, 35 Small Group Res. 407, 409 (2004).

¹⁰³ Zimmerman & West, *supra* note 99, at 108.

¹⁰⁴ Lyn Kathlene, Power and Influence in State Legislative Policymaking: The Interaction of Gender and Position in Committee Hearing Debates, 88 Am. Pol. Sci. Rev. 560, 565, 573 (1994); see also Kieran Snyder, How to Get Ahead as a Woman in Tech: Interrupt Men, Slate: Lexicon Valley (July 23, 2014, 2:09 PM), http://www.slate.com/blogs/lexicon_valley/2014/07/23/study_men_interrupt_women_more_in_tech_workplaces_but_high_ranking_women.html [<https://perma.cc/E9ED-JHHZ>] (observing that men at her technology company interrupt women far more in business meetings than vice versa).

¹⁰⁵ Adrienne B. Hancock & Benjamin A. Rubin, Influence of Communication Partner's Gender on Language, 34 J. Language Soc. Psychol. 1, 10 (2014).

¹⁰⁶ *Id.* at 11; Kathlene, *supra* note 104, at 567; Smith-Lovin & Brody, *supra* note 15, at 432; Zimmerman & West, *supra* note 99, at 117.

¹⁰⁷ Zimmerman & West, *supra* note 99, at 116.

¹⁰⁸ Hancock & Rubin, *supra* note 105, at 11.

¹⁰⁹ *Id.* at 6–8.

¹¹⁰ *Id.* at 10–11.

In another 2014 study, Kieran Snyder observed similar behaviors between men and women in a professional setting—a tech company.¹¹¹ 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.¹¹² Snyder noted 314 interruptions over 900 minutes of conversations and found that men interrupt more often than women (212 to 102 interruptions).¹¹³ Men were nearly “three times as likely to interrupt women as they were to interrupt other men.”¹¹⁴ Women were also far more likely to interrupt other women than they were to interrupt men.¹¹⁵ 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.¹¹⁶ Thus, as Snyder points out, “[t]hat is less than once per hour, in a climate where interruptions occur an average of once every two minutes and fifty-one seconds.”¹¹⁷ 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 and West found that “males assert an asymmetrical right to control topics and do so without evident repercussions.”¹¹⁸ They further observed that “men deny equal status to women as conversational partners with respect to rights to the full utilization of their turns.”¹¹⁹ Zimmerman and West speculated that interruptions at the interpersonal

¹¹¹ Snyder, *supra* note 104.

¹¹² *Id.*

¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ Zimmerman & West, *supra* note 99, at 125.

¹¹⁹ *Id.*

2017] *Interactions at Supreme Court Oral Arguments* 1403

level served as a microcosm for gender-power relations in society at large.¹²⁰

Other research has introduced alternative explanations for this phenomenon. According to Professor Janet Ainsworth, there is a fundamental difference between women's and men's speech.¹²¹ "Women's speech" is indirect and polite, while "men's speech" is more assertive and direct.¹²² 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."¹²³ 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."¹²⁴

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.¹²⁵ But this begs the question of why certain actions are considered masculine and others feminine. Professor William O'Barr and Bowman Atkins connect Ainsworth's "women's speech" construct to the Zimmerman and West theory, arguing that "'women's language' is in large part a language of powerlessness, a condition that can apply to

¹²⁰ Id.

¹²¹ Janet E. Ainsworth, In a Different Register: The Pragmatics of Powerlessness in Police Interrogation, 103 Yale L.J. 259, 263 (1993).

¹²² Id. at 262.

¹²³ Faye Crosby & Linda Nyquist, The Female Register: An Empirical Study of Lakoff's Hypotheses, 6 Language Soc. 313, 313–15, 317 (1977).

¹²⁴ Ainsworth, *supra* note 121, at 284; see also Shari Kendall, Mother's Place in *Language and Woman's Place*, in *Language and Woman's Place: Text and Commentaries* 202, 206 (Mary Bucholtz ed., 2004) (analyzing female-specific language as evidence of institutionalized gender roles).

¹²⁵ Lara F. Robinson & Harry T. Reis, The Effects of Interruption, Gender, and Status on Interpersonal Perceptions, 13 J. Nonverbal Behav. 141, 152 (1989).

men as well as women.”¹²⁶ It is referred to as “women’s language,” however, because of the “powerless position of many women in American society.”¹²⁷ O’Barr and Atkins posit that power can never really be removed from an analysis of gender dynamics and, thus, gender and power together influence interruptions.¹²⁸

While both Zimmerman and West’s study and O’Barr and Atkins’s 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, then-Professor Julia Goldberg broke down the differences between various types of interruptions.¹²⁹ Goldberg notes that there are power-driven interruptions—those that attempt to assert dominance—and nonpower, neutral interruptions—those that are not power grabs.¹³⁰ 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.¹³¹ 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 also 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.¹³² Thus, not only are individual men more likely to interrupt individual women, but men as a group respond to the intrusion of women as a group into their traditional domain of power by asserting their own 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

¹²⁶ William M. O’Barr & Bowman K. Atkins, “Women’s Language” or “Powerless Language”?, *in* *Women and Language in Literature and Society* 93, 94 (Sally McConnell-Ginet et al. eds., 1980).

¹²⁷ *Id.*

¹²⁸ *Id.* at 102–04.

¹²⁹ Goldberg, *supra* note 100, at 883.

¹³⁰ *Id.* at 887.

¹³¹ *Id.* at 891–92.

¹³² Kathlene, *supra* note 104, at 560, 573–74.

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 powerful enough that they persist even in the face of high levels of power achieved by women.¹³³ This would raise questions about O’Barr and Atkins’s 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. If there is a gender disparity, however, this would add strength to Zimmerman and West’s theory that microlevel 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. We look not only at frequency of interruption but also at response to interruptions—whether and when Justices acknowledge that they have committed the social faux pas of interrupting. If there is a difference there between men and women, then that weighs against Goldberg’s and Kathlene’s dominance hypotheses and in favor of Zimmerman and 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

¹³³ Feldman and Gill reach a similar conclusion. See Feldman & Gill, *supra* note 85, at 13 (“[A]ll 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.”).

rates, but female Justices appear to adopt an increasingly aggressive, direct style of questioning the longer they are on the Bench. It seems that the female Justices learn to ask questions directly so as not to 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*.¹³⁴

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: Yes, Your Honor. We believe that the requirement that the members of the Board of Review be both Members of Congress and in most cases members of certain relevant committees do constitute solely qualifications for appointment.¹³⁵

Or, seen even more clearly in *Connecticut v. Doe*.¹³⁶

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--

¹³⁴ 501 U.S. 252 (1991).

¹³⁵ Oral Argument at 9:51, *Metro. Wash. Airports Auth.*, 501 U.S. 252 (No. 90-906), <https://www.oyez.org/cases/1990/90-906> [<https://perma.cc/FER5-KWJW>].

¹³⁶ 501 U.S. 1 (1991).

2017] *Interactions at Supreme Court Oral Arguments* 1407

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? I mean, we're not dealing with a First Amendment situation here.

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 post . . . the immediate post-seizure hearing, things of that nature, were not developed in the district court.¹³⁷

In these examples, 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 she is about to ask a meaningful question. It is during this framing period, however, that she is often interrupted. Notably, twenty years after she joined the Bench, O'Connor is interrupted less frequently and utilizes a more direct approach, which allows her to fight through interruptions, as seen in *Kentucky Ass'n of Health Plans v. Miller*:¹³⁸

Sandra Day O'Connor: Have we ever--

Antonin Scalia:--Have you--

Sandra Day O'Connor:--analyzed a case that way in solving these problems? Have we ever relied on that difference in language, Mr. Feldman?

James A. Feldman: Well, in the . . . I think the Court in the Pireno case, for . . . oh, the difference in language?¹³⁹

Here, O'Connor starts with a more direct, assertive style of questioning and overcomes Scalia's attempt to interrupt. In contrast, Ginsburg in the 2002 Term utilized the polite framing technique, and she was interrupted at a very high rate.¹⁴⁰ For example, in *State Farm Mutual Automobile Insurance Co. v. Campbell* (2002):¹⁴¹

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

¹³⁷ Oral Argument at 0:42, *Doehr*, 501 U.S. 1 (No. 90-143), <https://www.oyez.org/cases/1990/90-143> [<https://perma.cc/T9SK-UN43>].

¹³⁸ 538 U.S. 329 (2003).

¹³⁹ Oral Argument at 51:07, *Miller*, 538 U.S. 329 (No. 00-1471), <https://www.oyez.org/cases/2002/00-1471> [<https://perma.cc/Z25T-4CQN>].

¹⁴⁰ See *infra* Part III.

¹⁴¹ 538 U.S. 408 (2003).

1408

Virginia Law Review

[Vol. 103:1379]

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]¹⁴²

Or, in *Dole Food Co. v. Patrickson*.¹⁴³

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.¹⁴⁴

Similar to O'Connor, however, Ginsburg appears to have transitioned to a more aggressive style of questioning in the 2015 Term, and she is not interrupted nearly as frequently.¹⁴⁵ 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*¹⁴⁶ 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--

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.

¹⁴² Oral Argument at 55:06, *Campbell*, 538 U.S. 408 (No. 01-1289), <https://www.oyez.org/cases/2002/01-1289> [<https://perma.cc/3TGB-PKT9>].

¹⁴³ 538 U.S. 468 (2003).

¹⁴⁴ Oral Argument at 22:29, *Patrickson*, 538 U.S. 468 (No. 01-593), <https://www.oyez.org/cases/2002/01-593> [<https://perma.cc/C3GH-FFVF>].

¹⁴⁵ See *supra* Subsection I.C.3 and *infra* Part II.

¹⁴⁶ 136 S. Ct. 2198 (2016).

2017] *Interactions at Supreme Court Oral Arguments* 1409

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.¹⁴⁷

Kagan suffers the same fate, as seen in *Kansas v. Carr*.¹⁴⁸

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? I mean--

Rachel P. Kovner: That's--that's what the Kansas Supreme Court said here.¹⁴⁹

Both Sotomayor and Kagan start with "sorry," which is an example 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*:

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.¹⁵⁰

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

¹⁴⁷ *Fisher* Oral Argument, supra note 22, at 24:35.

¹⁴⁸ 136 S. Ct. 633 (2016).

¹⁴⁹ Oral Argument at 23:26, *Carr*, 136 S. Ct. 633 (No. 14-449), <https://www.oyez.org/cases/2015/14-449> [<https://perma.cc/39LK-HXBF>].

¹⁵⁰ *Fisher* Oral Argument, supra note 22, at 23:16.

does not always occur within the first few words, as seen here in *Dollar General Corp. v. Mississippi Band of Choctaw Indians*.¹⁵¹

Sonia Sotomayor: Mr. Kneedler, 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. Kneedler?

Edwin S. Kneedler: Sometimes.¹⁵²

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*.¹⁵³

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.¹⁵⁴

Ginsburg attempted to dive right into her question, but Rehnquist still cut her off mid-question. Therefore, this pattern of the male Justices interrupting the female Justices may have less to do with "women's

¹⁵¹ 136 S. Ct. 2159 (2016).

¹⁵² Oral Argument at 49:59, *Dollar Gen. Corp.*, 136 S. Ct. 2159 (No. 13-1496) [hereinafter *Dollar Gen. Corp. Oral Argument*], <https://www.oyez.org/cases/2015/13-1496> [https://perma.cc/TF7U-DG96].

¹⁵³ 538 U.S. 580 (2003).

¹⁵⁴ Oral Argument at 4:29, *Roell*, 538 U.S. 580 (No. 02-69), <https://www.oyez.org/cases/2002/02-69> [https://perma.cc/WJJ9-HE9S].

2017] *Interactions at Supreme Court Oral Arguments* 1411

speech,” and more to do with the interruptees being women. Nonetheless, we expect that both effects may be operative and that women can at least reduce interruptions—albeit not to the level at which men are interrupted—by changing their 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*.¹⁵⁵

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. . . .¹⁵⁶

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*, 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 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--

¹⁵⁵ 136 S. Ct. 1277 (2016).

¹⁵⁶ Oral Argument at 29:41, *Hyatt*, 136 S. Ct. 1277 (No. 14-1175), <https://www.oyez.org/cases/2015/14-1175> [<https://perma.cc/EL6S-5MP8>].

1412

Virginia Law Review

[Vol. 103:1379]

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. . . .¹⁵⁷

Though it features a different Chief Justice, there is a stark difference between this interaction and the interaction in *Wiggins v. Smith* between Solicitor General Verrilli and Scalia, in which Rehnquist intervened. 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 because Sotomayor says, "Let me finish my point."

The interruptions between advocates and female Justices are not always as lengthy, as seen in *Dollar General Corp.*:

Ruth Bader Ginsburg: . . . I don't know of any other instance in which a jurisdiction has authority to legislate, to regulate the conduct in question, but does not have authority to back up that legislative authority by adjudicatory authority. Can you give me an example of--

Thomas C. Goldstein: I can give you several, Justice Ginsburg.¹⁵⁸

This is a classic example of a male advocate interrupting a female Justice because he presumes that he knows where the female Justice is

¹⁵⁷ *Fisher* Oral Argument, *supra* note 22, at 1:31:40.

¹⁵⁸ *Dollar Gen. Corp.* Oral Argument, *supra* note 152, at 1:06.

2017] *Interactions at Supreme Court Oral Arguments* 1413

going with her question, a form of mansplaining. Of course, we may expect these types of interruptions because of the time pressure, which again cuts against the Court's guidelines, but if that were 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*.¹⁵⁹

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 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.¹⁶⁰

There are three things to note here. First, Sotomayor is interrupted, as she does not get to finish her question. Second, although Breyer does not directly interrupt Sotomayor, he dismisses the entire discussion between Sotomayor and counselor Schowengerdt by 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 then recognizing the interruption yet continuing, belies the argument that the interrupter is not interrupting at all and that instead the two speakers just spoke

¹⁵⁹ 136 S. Ct. 1609 (2016).

¹⁶⁰ Oral Argument at 35:23, *Betterman*, 136 S. Ct. 1609 (No. 14-1457), <https://www.oyez.org/cases/2015/14-1457> [<https://perma.cc/8DES-WD2B>].

simultaneously with no intention of cutting the other off. 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*.¹⁶¹

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?¹⁶²

Similar to counselor Schowengerdt in the previous example, Kennedy clearly recognized that he interrupted Kagan because he says, “[E]xcuse me.” Instead of allowing Kagan to finish her thought or question, however, Kennedy continued with his question. As noted above, this type of interruption demonstrates that, even when the interrupter knows 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 female Justices are interrupted. Our empirical analysis shows that these illustrations are not outliers and there is a distinct pattern of gendered interruptions at the Court. 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.¹⁶³ Ideology typically refers to “an overarching framework of beliefs, with sufficient

¹⁶¹ 136 S. Ct. 1412 (2016).

¹⁶² Oral Argument at 31:47, *Heffernan*, 136 S. Ct. 1412 (No. 14-1280), <https://www.oyez.org/cases/2015/14-1280> [<https://perma.cc/CAD7-Y42F>].

¹⁶³ Founding works include C. Herman Pritchett, *The Roosevelt Court: A Study in Judicial Politics and Values 1937-1947* (1948), and Glendon A. Schubert, *The Study of Judicial Decision-Making as an Aspect of Political Behavior*, 52 *Am. Pol. Sci. Rev.* 1007 (1958). For more modern applications, see, for example, Lawrence Baum, *The Puzzle of Judicial Behavior* 4 (1997); Segal & Spaeth, *supra* note 47, at xv; see also Daniel R. Pinello, *Linking Party to Judicial Ideology in American Courts: A Meta-Analysis*, 20 *Just. Sys. J.* 219, 221 (1999) (providing an overview of various empirical legal studies).

2017] *Interactions at Supreme Court Oral Arguments* 1415

consistency among constituent belief elements that knowledge of an individual's ideology allows for prediction of his or her views on related topics."¹⁶⁴ One foundational study by Professor Jeffrey Segal and Professor Emeritus Harold 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 votes in civil liberties cases.¹⁶⁵ They showed that ideology correctly classifies 77% of the Court's search and seizure decisions from the 1962 to the 1998 Terms.¹⁶⁶ The effect of ideology in Supreme Court decisions has been demonstrated across a number of issue areas, including the death penalty,¹⁶⁷ freedom of speech,¹⁶⁸ search and seizure,¹⁶⁹ federalism,¹⁷⁰ intellectual property,¹⁷¹ and administrative law.¹⁷² The effect of ideology has also been demonstrated in the U.S. Courts of Appeal in areas as diverse as environmental regulation, administrative law, corporate law, campaign finance law, affirmative action, and discrimination law.¹⁷³

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

¹⁶⁴ Matthew Sag, Tonja Jacobi & Maxim Sytch, *Ideology and Exceptionalism in Intellectual Property: An Empirical Study*, 97 Calif. L. Rev. 801, 804 (2009).

¹⁶⁵ Segal & Spaeth, *supra* note 47, at 323.

¹⁶⁶ *Id.* at 314–20.

¹⁶⁷ Tracey E. George & Lee Epstein, *On the Nature of Supreme Court Decision Making*, 86 Am. Pol. Sci. Rev. 323, 327–28 (1992).

¹⁶⁸ Lee Epstein & Jeffrey A. Segal, *Trumping the First Amendment?*, 21 Wash. U. J.L. & Pol'y 81, 85 (2006).

¹⁶⁹ Segal & Spaeth, *supra* note 47, at 316–20.

¹⁷⁰ 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, 745 (2000).

¹⁷¹ Sag et al., *supra* note 164, at 803–04.

¹⁷² Donald W. Crowley, *Judicial Review of Administrative Agencies: Does the Type of Agency Matter?*, 40 W. Pol. Q. 265, 276 (1987).

¹⁷³ Frank B. Cross & Emerson H. Tiller, *Essay, Judicial Partisanship and Obedience to Legal Doctrine: Whistleblowing on the Federal Courts of Appeals*, 107 Yale L.J. 2155, 2158 (1998); Richard L. Revesz, *Environmental Regulation, Ideology, and the D.C. Circuit*, 83 Va. L. Rev. 1717, 1718–19 (1997); Cass R. Sunstein, David Schkade & Lisa Michelle Ellman, *Ideological Voting on Federal Courts of Appeals: A Preliminary Investigation 2–3* (John M. Olin Program in Law and Economics, Working Paper No. 198, 2003), http://chicagounbound.uchicago.edu/law_and_economics/247/ [https://perma.cc/5VWY-5S44].

vote to hear cases more frequently in which their preferred litigant or outcome ultimately wins.¹⁷⁴ 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.¹⁷⁵ 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.¹⁷⁶ Justices also bargain with each other during the opinion writing process.¹⁷⁷

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 these other areas of judicial behavior, however, few scholars have studied the effect of ideology on interruptions. One important exception is that of political scientists and Professors Johnson, Black, and Wedeking who found that Justices with opposite ideological positions more frequently interrupt each other.¹⁷⁸ Another study by Johnson, Wahlbeck, and Spriggs concerned the effect of oral arguments' quality on Justices' final votes, and they found a significant effect.¹⁷⁹ However, 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 "alter[ed] the probability of a [J]ustice voting to reverse from .396 to .763."¹⁸⁰

¹⁷⁴ See Robert L. Boucher, Jr. & Jeffrey A. Segal, *Supreme Court Justices as Strategic Decision Makers: Aggressive Grants and Defensive Denials on the Vinson Court*, 57 J. Pol. 824, 825–26, 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. & Org. 549, 550 (1999).

¹⁷⁵ See Glendon Schubert, *Policy Without Law: An Extension of the Certiorari Game*, 14 Stan. L. Rev. 284, 294, 301 (1962) ("[E]ven an equal proportion of 'wins' and 'losses' in the Court's decisions on the merits would have to be considered a failure for . . . Only a consistent pattern of 'wins' could be expected to bring about the desired policy compliance from the lower courts . . .").

¹⁷⁶ See H. W. Perry, Jr., *Deciding To Decide: Agenda Setting in the United States Supreme Court 170–79* (1991) (providing interviews with numerous Justices who describe using dissents from denial of certiorari as a method of persuading fellow Justices to hear a case); Vanessa Baird & Tonja Jacobi, *Judicial Agenda Setting Through Signaling and Strategic Litigant Responses*, 29 J.L. & Pol'y 215, 217 (2009) (presenting empirical evidence of judicial signaling).

¹⁷⁷ See Lee Epstein & Jack Knight, *The Choices Justices Make 75–76* (1998).

¹⁷⁸ Johnson et al., *Pardon the Interruption*, supra note 67, at 334–35, 349.

¹⁷⁹ Johnson et al., *The Influence of Oral Arguments*, supra note 27, at 108–09.

¹⁸⁰ Id. at 111.

2017] *Interactions at Supreme Court Oral Arguments* 1417

In light of the existing 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,¹⁸¹ the most commonly used index of judicial ideology. Dean Andrew Martin and Professor Kevin Quinn use every vote cast by every Justice since 1937 to estimate dynamic ideal points of the Justices' outcome preferences—that is, a point score for each Justice that best represents his or her overall preferences based on voting patterns and which can potentially change each year. The scores are a product of the patterns of the voting coalitions of the Justices. “For example, a [J]ustice 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] a 7-2 conservative decision” but at other times joins the conservative opinion.¹⁸² 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 Clarence 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.¹⁸³ 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,¹⁸⁴ 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:

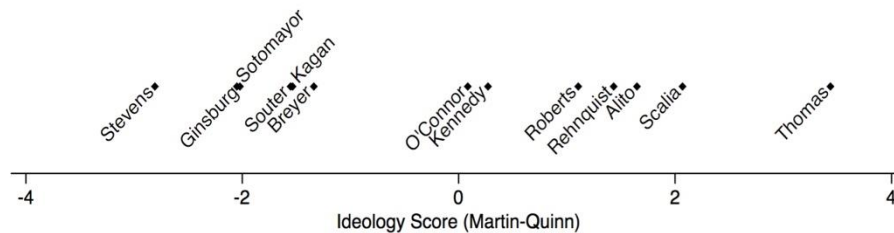
¹⁸¹ Andrew D. Martin & Kevin M. Quinn, Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953–1999, 10 *Pol. Analysis* 134, 135–36 (2002) (data available at <http://mqscores.berkeley.edu/measures.php> [<https://perma.cc/XW9X-KZVK>]) (updated annually).

¹⁸² Sag et al., *supra* note 164, at 832.

¹⁸³ Importantly, Martin-Quinn scores use a constant scale over time, which allows for comparison of Justices who did not serve together. See *id.* at 832.

¹⁸⁴ To be exact, historically, the average of the Court is -0.06 and the standard deviation is 2.14. Martin-Quinn scores are regularly updated (data available at <http://mqscores.berkeley.edu/measures.php> [<https://perma.cc/XW9X-KZVK>]). These figures are as of November 2016.

Table 2: Martin-Quinn Scores for the Supreme Court, 2004–15, Averaged



This measure is better than using the party of the appointing President,¹⁸⁵ especially given that there are multiple, significant disappointments for presidents in our data, including Justice John Paul Stevens, Justice David Souter, and Justice Harry Blackmun.¹⁸⁶ We expect ideology measured in this way to be a significant factor affecting interruptions at oral arguments. However, there are a number of reasons this effect could be more nuanced than simply being determined by ideology.

First, the relative ideological positions of the Justices could also be an important factor. It is now common in the legal literature to focus on the “Court median” or the “swing Justice,”¹⁸⁷ because the justice who lies in the middle of the Court is essential to securing a majority.¹⁸⁸ 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

¹⁸⁵ See Sag et al., *supra* note 164, at 831–32, 838 (finding that Martin-Quinn scores are consistent with, but more informative than, using the party of the President who appointed the Justice).

¹⁸⁶ David Leonhardt, *The Supreme Court Blunder That Liberals Tend to Make*, N.Y. Times: The Upshot (June 2, 2014), <https://www.nytimes.com/2014/06/03/upshot/the-supreme-court-blunder-that-liberals-tend-to-make.html?mcubz=0>.

¹⁸⁷ See, e.g., Jack M. Balkin & Sanford Levinson, *The Processes 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).

¹⁸⁸ Epstein & Jacobi, *Super Medians*, *supra* note 40, at 77 (presenting empirical evidence establishing the overall greater power of median Justices).

2017] *Interactions at Supreme Court Oral Arguments* 1419

in most cases.¹⁸⁹ Accordingly, in addition to a general ideological effect, we are interested in whether the ideologically moderate Justices in particular receive greater deference by being interrupted less because of their positional power.

Second, scholars have long debated how the effect of ideology and law play off against each other in judicial decision making.¹⁹⁰ The Justices regularly insist that legal methodology is vitally important to the decision-making process,¹⁹¹ as do judges on other courts,¹⁹² and scholars.¹⁹³ Professor Tonja Jacobi 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.¹⁹⁴ Professor

¹⁸⁹ 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").

¹⁹⁰ See the dispute between Harry T. Edwards, *Collegiality and Decision Making on the D.C. Circuit*, 84 *Va. L. Rev.* 1335, 1335 (1998), and Revesz, *supra* note 173, at 1718–19. See also Perry, *supra* note 176 (reporting interviews wherein judges describe using a mixture of legal and pragmatic analysis).

¹⁹¹ Judges regularly profess to be influenced by judicial methodology, including textualism, formalism, purposivism, consequentialism, minimalism, and concerns for the 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 (2002); Antonin Scalia, *Originalism: The Lesser Evil*, 57 *U. Cin. L. Rev.* 849, 862 (1989). Justice Kagan recently "said that disagreements among the [J]ustices are not a matter of political ideology, but rather different methods of interpreting the Constitution." Tracy Mueller, *Supreme Court Justice Kagan On Remembering Justice Scalia, Political Pressures, and Texting (or Not) Among the Justices*, *U. Ariz. James E. Rogers C.L.* (Sept. 2, 2016), <https://law.arizona.edu/supreme-court-kagan-scalia-university-arizona-law-lecture> [<https://perma.cc/2HQU-DRPX>].

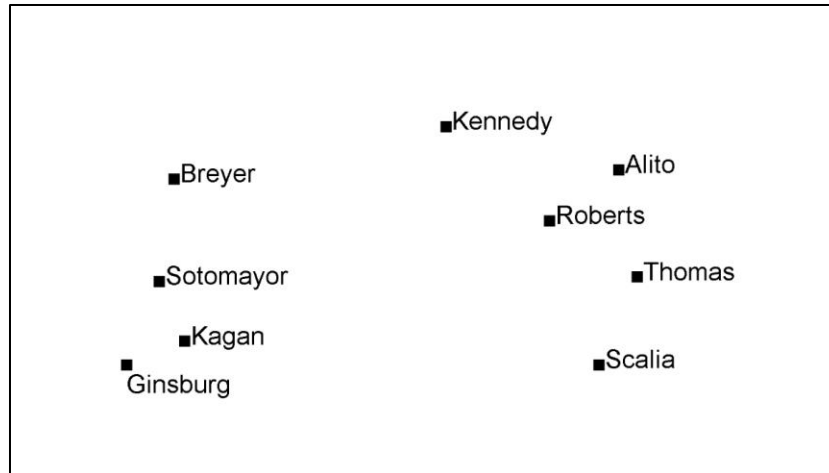
¹⁹² See, e.g., Edwards, *supra* note 190, at 1335 (responding to the "myth that ideology is a principal determinant in decision making" on the D.C. Circuit); Richard A. Posner, *What Do Judges and Justices Maximize? (The Same Thing Everybody Else Does)*, 3 *Sup. Ct. Econ. Rev.* 1, 40 (1993) (suggesting that precedent is important for judges, largely as a mechanism for maximizing efficiency).

¹⁹³ See Philip Bobbitt, *Constitutional Fate: Theory of the Constitution* (1982); Philip Bobbitt, *Constitutional Interpretation* (1991); Perry, *supra* note 176, at 272 (concluding that a legal process decision model dominates most justices' strategy of cases).

¹⁹⁴ Joshua B. Fischman & Tonja Jacobi, *The Second Dimension of the Supreme Court*, 57 *Wm. & Mary L. Rev.* 1671, 1674–75 (2016); see also Pablo T. Spiller & Emerson H. Tiller, *Invitations to Override: Congressional Reversals of Supreme Court Decisions*, 16 *Int'l Rev. L. & Econ.* 503, 520–21 (1996) ("That [J]ustices have preferences for both rules and policy outcomes helps explain why [J]ustices often vote for policies that seem inconsistent with their expected political preferences.").

Joshua Fischman and 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:

Figure 1: Roberts Court in Two Dimensions, 2010–12



Source: Fischman & Jacobi, *supra* note 194 (2016).

Fischman and 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.¹⁹⁵ But while what constitutes the second dimension 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. The same holds true for Ginsburg and Alito or for Ginsburg and Kennedy. Thus, we are interested to see not only whether ideology matters at oral arguments, and whether being a moderate Justice matters, but also whether division on the second dimension might also be

¹⁹⁵ Some scholars have shown that federalism is also a significant secondary or tertiary dimension. See Vanessa 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, 187–88 (2009) (showing that dissenting Justices use federal-state divisions to split substantive coalitions and craft subsequent majority coalitions in a significant number of cases).

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 exists disagreement among scholars considering judicial ideology as to whether ideological disagreements among the Justices are “political”¹⁹⁶ or “partisan.”¹⁹⁷ Early measurement of judicial attitudes was undertaken by political scientists who drew on the more developed literature on Congress,¹⁹⁸ an institution whose members’ views being shaped by partisanship is uncontroversial. But judges are meant to be independent of such affiliations once joining the bench.¹⁹⁹ 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, 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,

¹⁹⁶ “Political” in this context typically signifies possessing policy-relevant, ideologically predictable preferences that are not dependent on affiliation with a particular political party. See, e.g., Richard A. Posner, Foreword: A Political Court, 119 Harv. L. Rev. 32, 34, 75–76 (2005) (arguing that for a Justice to be nonpartisan is to be “law-like” and thus differentiable from a politician, but a Justice can legitimately be political, as “Supreme Court Justices are in a position to forge for themselves a coherent, party-independent political identity”).

¹⁹⁷ “Partisan” in this context typically signifies ideologically predictable preferences that are defined by party affiliation. See, e.g., Neal Devins & Lawrence Baum, Split Definitive: How Party Polarization Turned the Supreme Court into a Partisan Court, 2016 Sup. Ct. Rev. 301, 303 (2017) (arguing that “today’s Court is different from past Courts in the linkage between party and ideology”).

¹⁹⁸ See, e.g., 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).

¹⁹⁹ 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, 1413, 1417–18 (2016) (finding that “Republican judges display greater partisan loyalty than Democratic judges in election cases where ideology is not a significant consideration”).

which initiated the increasingly polarized political environment in the country more broadly.²⁰⁰ 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 disruptive atmosphere.²⁰¹ 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.²⁰² 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 we also see the effect is uneven: conservatives interrupt liberals at significantly higher rates than liberals interrupt conservatives.

²⁰⁰ See, e.g., Political Polarization in the American Public, *supra* note 32 (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).

²⁰¹ See, e.g., Nina Totenberg, Justice Antonin Scalia, Known For Biting Dissents, Dies At 79, *Nat’l Pub. Radio: Remembrances* (Feb. 13, 2016, 5:37 PM), <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 [C]ourt, the [J]ustices asked few questions during oral argument. And Scalia, the junior [J]ustice, jumped in, pummeling lawyers relentlessly with questions. Soon other [J]ustices took a more active approach to questioning, so that most lawyers could get less than a sentence out of their mouths before being interrupted.”).

²⁰² For instance, Justice Breyer recently said to an advocate at oral argument, “[T]he fact that you have the questions you’ve had and both sides of the [B]ench 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*, 137 S. Ct. 1144 (2017) (No. 15-1391), <https://www.oyez.org/cases/2016/15-1391> [<https://perma.cc/4HGE-XA6V>].

2017] *Interactions at Supreme Court Oral Arguments* 1423

*Lawrence v. Texas*²⁰³ 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: Yes, the rational basis is that the State thinks it immoral just as the State thinks adultery immoral or bigamy immoral.

Stephen G. Breyer: Or teaching German.

Antonin Scalia: Well, that--

[Laughter]

William H. Rehnquist: Maybe we should go through counsel, yes.²⁰⁴

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*.²⁰⁵

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.²⁰⁶

²⁰³ 539 U.S. 558 (2003).

²⁰⁴ Oral Argument at 47:11, *Lawrence*, 539 U.S. 558 (No. 02-102), <https://www.oyez.org/cases/2002/02-102> [<https://perma.cc/WK86-9KXZ>].

²⁰⁵ 538 U.S. 314 (2003).

²⁰⁶ Oral Argument at 20:11, *Archer*, 538 U.S. 314 (No. 01-1418), <https://www.oyez.org/cases/2002/01-1418> [<https://perma.cc/53KY-R2WY>].

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*.²⁰⁷

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.²⁰⁸

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*.²⁰⁹

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?²¹⁰

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.²¹¹ This sentiment is still present in Western society today. Specifically, this concept has

²⁰⁷ 136 S. Ct. 2243 (2016).

²⁰⁸ Oral Argument at 24:10, *Mathis*, 136 S. Ct. 2243 (No. 15-6092), <https://www.oyez.org/cases/2015/15-6092> [<https://perma.cc/4KEN-67QX>].

²⁰⁹ 136 S. Ct. 1885 (2016).

²¹⁰ Oral Argument at 29:37, *Dietz*, 136 S. Ct. 1885 (No. 15-458), <https://www.oyez.org/cases/2015/15-458> [<https://perma.cc/S2BP-QRF3>].

²¹¹ See Aris Teon, Filial Piety in Chinese Culture, *Greater China J.* (Mar. 14, 2016), <https://china-journal.org/2016/03/14/filial-piety-in-chinese-culture/> [<https://perma.cc/C5G8-3WUJ>] (discussing the Confucian concept of "filial piety").

2017] *Interactions at Supreme Court Oral Arguments* 1425

infiltrated the workplace.²¹² Professors Canice Prendergast and Robert Topel found that firms in the United States commonly use seniority to determine promotions and compensation.²¹³ Though, the opposite—age discrimination in the workplace—has recently become prevalent and has been the basis for many a lawsuit.²¹⁴ Furthermore, many organizations have moved away from the traditional seniority model for compensation to a performance-based model.²¹⁵

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, as mentioned, the most junior Justice has special responsibilities. These are the only formal rules based on seniority, but it raises the question whether there is an unspoken agreement among 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 Professor Emeritus J. Woodford Howard did find that it takes some time for the freshman Justices to become acclimated with their roles on the Supreme Court.²¹⁶ 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

²¹² See Canice Prendergast & Robert H. Topel, Favoritism in Organizations, 104 J. Pol. Econ. 958, 959, 962 n.6 (1996) (finding that organizations typically base compensation and rewards on seniority).

²¹³ Id. at 962 n.6.

²¹⁴ See, e.g., EEOC v. Sidley Austin L.L.P., 437 F.3d 695, 695–96 (7th Cir. 2006) (finding that Sidley Austin could be liable under the Age Discrimination in Employment Act for forcing its older partners to retire, even though these partners failed to file timely claims with the Equal Employment Opportunity Commission).

²¹⁵ See Tarun Khanna, Jaeyong Song & Kyungmook Lee, The Globe: The Paradox of Samsung's Rise, 89 Harv. Bus. Rev. 142, 142–44 (July–Aug. 2011), <https://hbr.org/2011/07/the-globe-the-paradox-of-samsungs-rise> [<https://perma.cc/LZ97-WZ59>] (describing how Samsung integrated performance-based compensation practices into their traditionally seniority-based employment structure).

²¹⁶ J. Woodford Howard, Jr., On the Fluidity of Judicial Choice, 62 Am. Pol. Sci. Rev. 43, 45 (1968).

their first few years on the Court,²¹⁷ which could also lead to less questioning during oral arguments.

Only one research study has looked at seniority as a factor for interruptions between the Justices during oral argument.²¹⁸ 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.²¹⁹ Feldman and Gill find that, measured in this way, seniority “did not rise to a significan[t] level of interest” because freshman Justices are not interrupted at a significantly higher level than the rest of the Justices.²²⁰ 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,²²¹ but that seems to us an unnecessary limit to put on the data. We are interested in whether seniority more generally affects interruption behavior.

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? We are able to track changes in behavior that affect seniority as far back as 1990, 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

²¹⁷ Id. But see Terry Bowen & John M. Scheb, II, Reassessing the “Freshman Effect”: The Voting Bloc Alignment of New Justices on the United States Supreme Court, 1921–90, 15 Pol. Behav. 1, 12–13 (1993) (finding no freshman effect among the Justices).

²¹⁸ Feldman & Gill, *supra* note 85, at 49–50.

²¹⁹ Id.

²²⁰ Id. at 52.

²²¹ Id.

2017] *Interactions at Supreme Court Oral Arguments* 1427

versa, as seen multiple times in *McDonnell v. United States*,²²² 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."²²³

Less than two minutes later:

Elena Kagan: Can I--

Anthony M. Kennedy: I agree with Justice Breyer.²²⁴

Almost two minutes later:

Elena Kagan: Can I ask--

John G. Roberts, Jr.: Sure--sure. It depends on who's making the referral or the call, right?²²⁵

Here, Kagan is interrupted three times within four minutes. The transcript indicates that she never did get to ask the question she wanted to ask.²²⁶ 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 interrupted 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 also raises again 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 when the less senior Justice is a male, as in *Bruce v. Samuels*:²²⁷

²²² 136 S. Ct. 2355 (2016).

²²³ Oral Argument at 17:49, *McDonnell*, 136 S. Ct. 2355 (No. 15-474), <https://www.oyez.org/cases/2015/15-474> [<https://perma.cc/Z2Y5-K9MZ>].

²²⁴ Id. at 19:07.

²²⁵ Id. at 20:54.

²²⁶ See id.

²²⁷ 136 S. Ct. 627 (2016).

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."²²⁸

Chief Justice Roberts is less senior than Justice Ginsburg, but here we see him interrupting her—though perhaps being Chief Justice is a stand-in for seniority. But the Chief Justice is not the only junior Justice to interrupt a more senior Justice. For instance, in *Kirtsaeng v. John Wiley & Sons*²²⁹ the Chief Justice was interrupted by his junior colleague, Justice Alito:

John G. Roberts, Jr.: Is there anything--

Samuel A. Alito, Jr.: Have we ever said in a--have we ever said that the availability of attorneys' fees is dependent on the financial resources of the party?²³⁰

When all three variables are present, there is a strong possibility of an interruption, such as in *Hurst v. Florida*.²³¹

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.²³²

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 less senior liberal female Justice.

²²⁸ Oral Argument at 19:24, *Bruce*, 136 S. Ct. 627 (No. 14-844), <https://www.oyez.org/cases/2015/14-844> [<https://perma.cc/AS9R-P8GM>].

²²⁹ 136 S. Ct. 1979 (2016).

²³⁰ Oral Argument at 7:47, *Kirtsaeng*, 136 S. Ct. 1979 (No. 15-375), <https://www.oyez.org/cases/2015/15-375> [<https://perma.cc/D4Q6-2X9D>].

²³¹ 136 S. Ct. 616 (2016).

²³² Oral Argument at 50:51, *Hurst*, 136 S. Ct. 616 (No. 14-7505), <https://www.oyez.org/cases/2015/14-7505> [<https://perma.cc/2PRC-84N3>].

II. 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 arguments. 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.²³³ 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. We show, however, 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 the dilemma in this Part by including 2004 and 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 2004–15 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 make 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 a Justice was the 'interruptee.' We then examined who is listed as speaking next, and that identifies the 'interrupter.'

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

²³³ Argument Transcripts, Supreme Court of the United States, https://www.supremecourt.gov/oral_arguments/argument_transcript.aspx [<https://perma.cc/7LGJ-AWAT>].

grouped by gender and ideology, because of the large number of advocates appearing before the Court. We do not consider in any detail interruptions by the Justices of the advocates.²³⁴ 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.²³⁵

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 the Justices’ activity during the oral argument. Most importantly, Table 3 shows how often each Justice interrupts another Justice in the 2004–15 period.

Table 3: Justices’ Speaking and Interruption Behavior, 2004–15

Speaker	<i>Cases</i>		<i>Per Term</i>		<i>Interruptions</i>	
	Heard	Spoke In (%)	Speeches	Words	By Other Justice	Of 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

²³⁴ The overall numbers of the Justices’ interruptions of advocates is shown in Table 3.

²³⁵ See Sullivan & Canty, *supra* note 31, at 1042–45.

2017] *Interactions at Supreme Court Oral Arguments* 1431

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 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 it is neither true in general²³⁶ nor when it comes to Supreme Court Justices, as shown in Table 3.

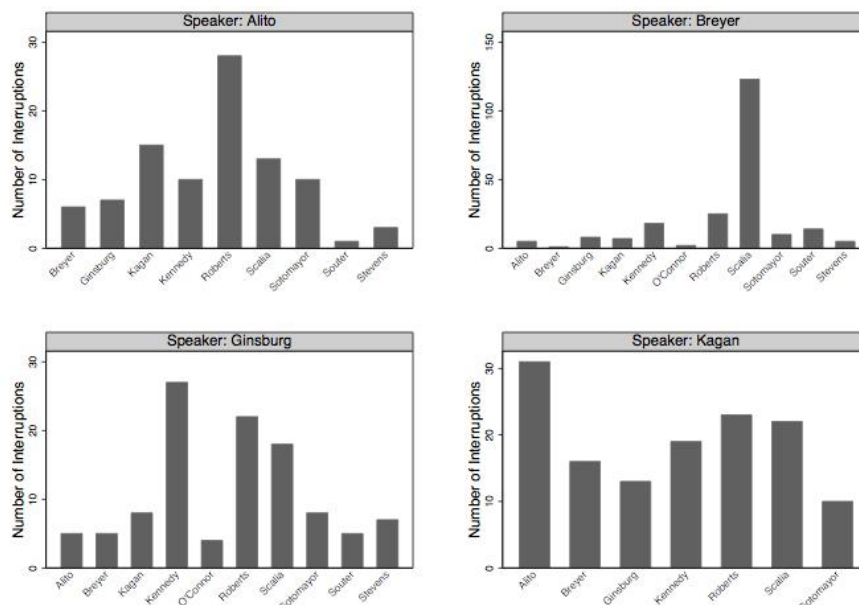
Note that the interruptions listed in Table 3, including the most important variable, interruptions by other Justices, are presented here in raw numbers—they are not yet adjusted in any way, such as by controlling for a Justice's number of appearances, etc., and so conclusions drawn can only be very preliminary. With that caveat in mind, we once again see huge variation, with Justices Breyer, Scalia, Ginsburg, Sotomayor, and Kagan being the only Justices to reach triple figures in the number of times they are interrupted by another Justice.

²³⁶ See Christopher F. Karpowitz & Tali Mendelberg, *The Silent Sex: Gender, Deliberation, and Institutions* (2014) (showing that women account for only approximately a quarter of speaking time, and parity is not reached unless women constitute roughly 80% of a body); Shân Wareing, *Language and Gender*, in *Language, Society and Power: An Introduction* 65, 76 (Linda Thomas & Shân Wareing eds., 1999) (finding that men and boys “talk more in mixed sex groups than women”); Emma Pierson, *Outnumbered But Well-Spoken: Female Commenters in the New York Times* (Feb. 28, 2015) (unpublished manuscript) http://cs.stanford.edu/people/emmap1/cscw_paper.pdf [<https://perma.cc/MCD7-H8UD>] (finding that only twenty-eight percent of online New York Times commenters are female, but that their comments receive more recommendations from other readers, suggesting that women talk less than men, exercising greater quality control); Marie Tessier, *Speaking While Female, and at a Disadvantage*, N.Y. Times: The Upshot (Oct. 27, 2016) <https://www.nytimes.com/2016/10/27/upshot/speaking-while-female-and-at-a-disadvantage.html> (summarizing studies on women speaking frequency in various settings, including research on Vermont town hall meetings over forty years showing that women consistently speak less than men, even as aggregate numbers have increased for both).

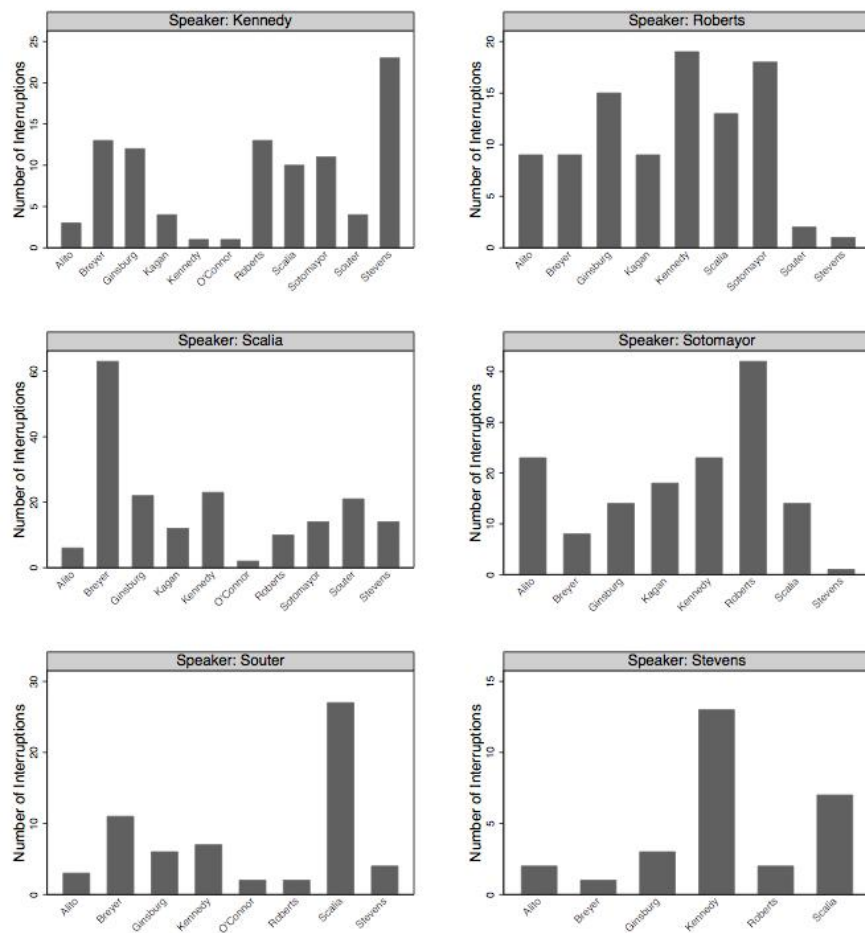
There are similar patterns in terms of justices interrupting advocates—again, Scalia and Breyer hold the lead, with over 1,000 interruptions apiece, suggesting the possibility that Justices who interrupt a lot are also Justices who frequently get interrupted.²³⁷ In the high triple figures we once again see Ginsburg and Sotomayor, but Roberts has jumped into third place, Kennedy has joined them, and Kagan is much lower on this scale. But this initial impression is misleading: interruptions are not simply a product of exposure; 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.

Figure 2: Bar Plot by Justice Pairs



²³⁷ Evidence has been found in support of this—see Ryan C. Black, Timothy R. Johnson & Justin Wedeking, *Oral Arguments and Coalition Formation on the U.S. Supreme Court: A Deliberate Dialogue* 43–44 (2012) (finding that Justices who frequently interrupt another Justice or advocate during oral arguments are more likely to be subsequently interrupted by their colleagues later in the proceedings); Tonja Jacobi & Kyle Rozema, *Judicial Conflicts and Voting Agreement: Evidence from Interruptions at Oral Argument* (Sept. 18, 2017) (unpublished manuscript) <http://ssrn.com/abstract=3039105> [<https://perma.cc/7WF5-5VBT>] (finding that the more a Justice speaks, the more likely he or she is to be interrupted).



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.

The Scalia-Breyer interaction is unusual. As seen in Table 4, Scalia interrupted Breyer almost twice as often as Breyer interrupted Scalia (123 and 63 times, respectively), and that figure in turn is significantly higher than any other Justice interrupting any other Justice (e.g., Roberts

of Sotomayor, at 42). So, Scalia interrupted Breyer three times as often as any other Justice was interrupted by any other Justice. Also, 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 almost half of his interruptions of any Justice (47%).

Table 4: Interruptions, by Pairwise Justice Interactions

	Who Interrupted												
Got Interrupted	Alito	Breyer	Ginsburg	Kagan	Kennedy	O'Connor	Roberts	Scalia	Sotomayor	Souter	Stevens	Thomas	Total
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
OConnor		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. 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 to the left of Breyer, and yet Scalia interrupted her at 15% the rate at which

he interrupted Breyer.²³⁸ But if we consider the division on the Court not simply in terms of ideology but also in terms of methodology, the Scalia-Breyer 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. 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.²³⁹ Similarly, on the opposite diagonal axis, the pragmatist, moderately conservative Justice Kennedy interrupts the formalist, liberal Justice Ginsburg more often than the very interruptive Kennedy interrupts any other Justice, and more often than the much-interrupted Ginsburg is interrupted by any other Justice, though this was not true for Ginsburg and Alito.

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.

²³⁸ However, Justice Scalia and Justice Ginsburg were also personal friends; according to Justice Ginsburg, "[W]e were best buddies." Press Release, Sup. Ct. of the U.S., Statement of Justice Ruth Bader Ginsburg, Statements from the Supreme Court Regarding the Death of Justice Antonin Scalia (Updated) (Feb. 15, 2016), https://www.supremecourt.gov/publicinfo/press/pressreleases/pr_02-14-16 [<https://perma.cc/6SK8-4WF6>].

²³⁹ 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 accompanying Figure 7.

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				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	0		0	0	0
Rehnquist								0		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 but does not show who is interrupting whom.²⁴⁰ 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.

²⁴⁰ Each Justice appears only once, in contrast to Table 4, which indicated both when each Justice interrupts and when he or she is interrupted. Blank spaces indicate that a pair of Justices did not hear a case together, whereas a zero entry indicates that there were no interruptions between the pair of Justices, even though they did hear cases together.

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 2004–15 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 disproportionate rates, and even 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 understates the interruption rates of women—in fact, women are being interrupted at very disproportionate rates also.

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. For instance, Kagan and Sotomayor are involved in interruptions with almost all of their colleagues on average more than once a case: for Kagan this ratio is 6/8, for Sotomayor it is 7/8. Table 6, however, shows us that the female Justices are interrupting at very low rates. 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 combine to 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, as seen in both Table 4 and Table 5, 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

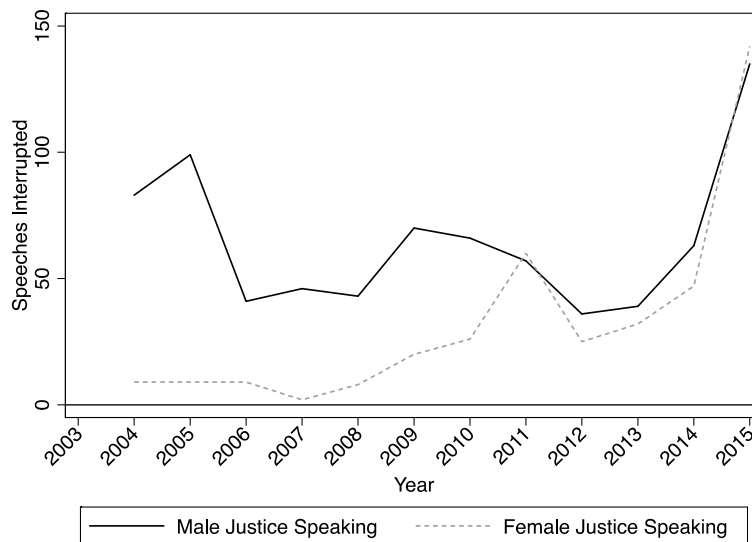
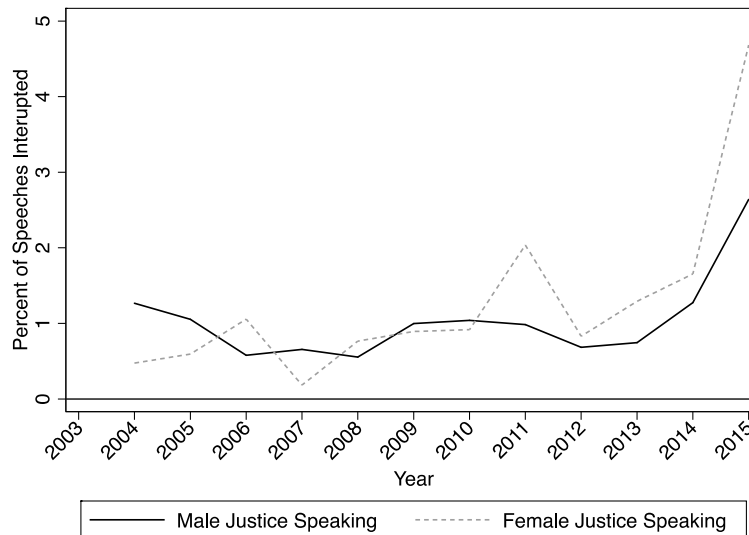


Figure 3 shows the annual number of interruptions, separating between women and men. At first glance, it may not look as if there is a large gender difference, but Figure 3 once again displays the raw numbers, unadjusted by the fact that there is a 8-1, 7-2, or 6-3 ratio of men to women on the Court, depending on the year. Thus, while in 2004–08 we see little evidence of a gender effect, from 2009 onward, the overall 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 onward, effectively the women are being interrupted at approximately two 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 arguments 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 onward, 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, after 2010, women are interrupted more often when they speak than men are. In 2011 and 2015, the effect begins to look truly astonishing. From 2010 to 2015, when for the first time in history women made up one-third of the Court's personnel, women came to be consistently interrupted more than men per speech episode, even though women speak on average the same amount as men. This lends support to research results in other areas that show that men react against women entering their domain in more than token numbers by increasing their aggressiveness towards the women.

Figure 5: Frequency and Timing of Interruptions, by Justice

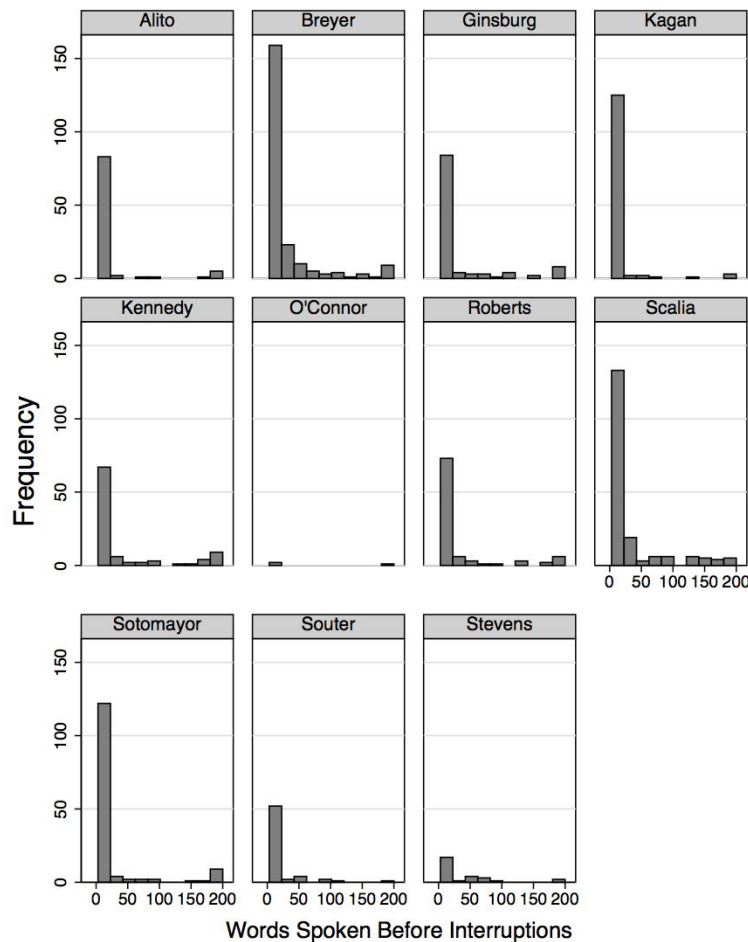


Figure 5 shows the timing of each interruption—that is, how far into a dialogue a person is able to speak before being interrupted. We have capped the words spoken axis at 200—so all dialogues over 200 words are grouped together—which explains why many of the subplots have a bump at the 200 mark. Unlike 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.²⁴¹

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.

So, there is some difference in how quickly the Justices are interrupted, with women being interrupted somewhat more quickly. But significantly, most interruptions for all Justices happen early in a person's speech. That means that being slow to get to the substance of a question would make it particularly easy to interrupt a speaker. Thus, common use of the 'female register'—saying "sorry," "excuse me," "may I ask," "could I ask," or beginning with the name of the advocate before asking a question²⁴²—could be very significant in the rate at which speakers are interrupted.

Figure 6 explores this hypothesis. To undertake this test, we need to go further back in time, because many of the Justices on the Roberts Court have been serving at the Supreme Court for decades before 2004. We created a full data set of all of the words used in oral arguments going back to 1960, before even Justice O'Connor joined the Court.²⁴³

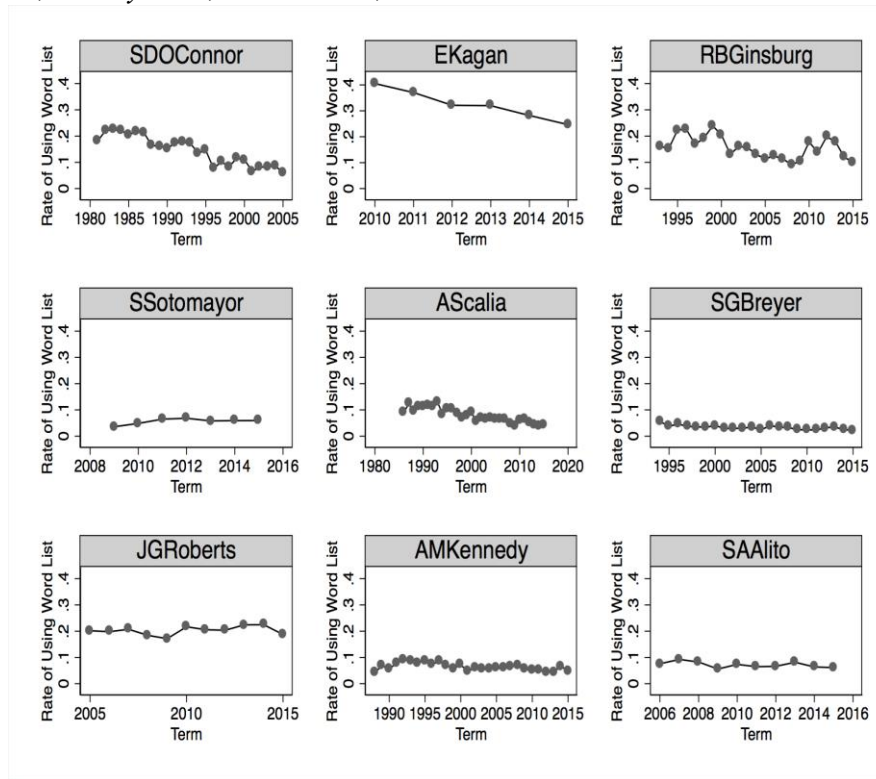
²⁴¹ We infer that Rehnquist spoke less in his final Term due to ill health.

²⁴² See *supra* discussion in Section I.C.

²⁴³ We have not yet confirmed whether data from this period is consistently reliable in terms of coding interruptions, so we cannot use earlier data to analyze interruptions at this stage. Jacobi and Rozema are currently undertaking this process. See Jacobi & Rozema, *supra* note 237.

Figure 6 shows the use of polite prefatory language on a standardized scale, so we can directly compare both rates and changes in behavior.

Figure 6: Frequency of Justices Using the Words “Sorry,” “Excuse Me,” “May I ask,” “Can I ask,” or the Advocate’s Name



Three of the four women who have served on the Court show clear downward trends in their use of polite prefatory phrasing. Justices O'Connor, Ginsburg, and Kagan have each approximately halved their uses of polite language. Very few of the men show similar patterns—the male Justices' usage rates overwhelmingly have flat slopes that indicate little change in behavior.²⁴⁴ Furthermore, as women adapt their behavior, their rates of polite language usage approach those of men—thus women really are learning to behave more like men. Yet they do not always reach the low levels with which most men enter the Bench. Justices

²⁴⁴ With the exception of Thomas, whose rate of interruptions is too infrequent to assess in these Terms.

2017] *Interactions at Supreme Court Oral Arguments* 1443

Breyer, Kennedy, Alito, and Scalia all use polite language consistently at a rate below 0.1. Among the male Justices, only Chief Justice Roberts uses polite language at a rate of 0.2.²⁴⁵ After more than 30 years on the Court, Justice Ginsburg still uses polite language more than Justices Breyer, Kennedy, and Alito did immediately upon joining the Court. It took Justice O'Connor 20 years to reach that lower level of polite language use. Justice Kagan's use of polite language has dropped dramatically, halving in 5 years, but it is still twice as high as the average male Justice, sitting above 0.2.

Justice Sotomayor learned the fastest of all the female Justices. In her first three months on the Court, in the 2009 calendar year, Sotomayor spoke only four times, but three of those were prefaced with polite language. By her first full term on the Court in 2010, Sotomayor's rate of using polite language dropped from 75% to less than 20%, making her comparable to the male Justices.

Reducing use of polite prefatory phrasing does not completely *prevent* interruptions nor does it reduce the disparity between the interruptions of male and female Justices. Women continue to be interrupted more than men, and Justice Sotomayor is interrupted despite her rapid minimal use of this language. Nonetheless, this adaptive response may reduce interruptions, and the graph shows the women are definitely learning. Both Justices O'Connor and Ginsburg were interrupted less over time, even as interruptions increased. This suggests Justice Kagan would be wise to continue learning the lesson that her more senior female colleagues have learned.

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.

²⁴⁵ Interestingly, Justice Scalia was the next most polite male Justice, although significantly less polite than the Chief Justice, which further damages the theory of Scalia as the catalyst for the end of polite oral arguments.

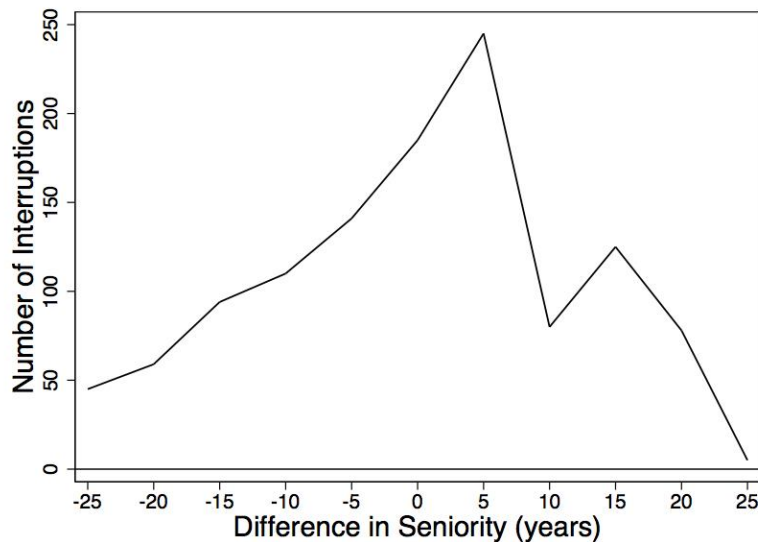
Figure 7: Interruptions, by Difference in Seniority

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.²⁴⁶ 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.

²⁴⁶ Feldman and Gill also tested seniority, but confined their observations to looking for a freshman effect. See Feldman & Gill, *supra* note 85, at 49–50.

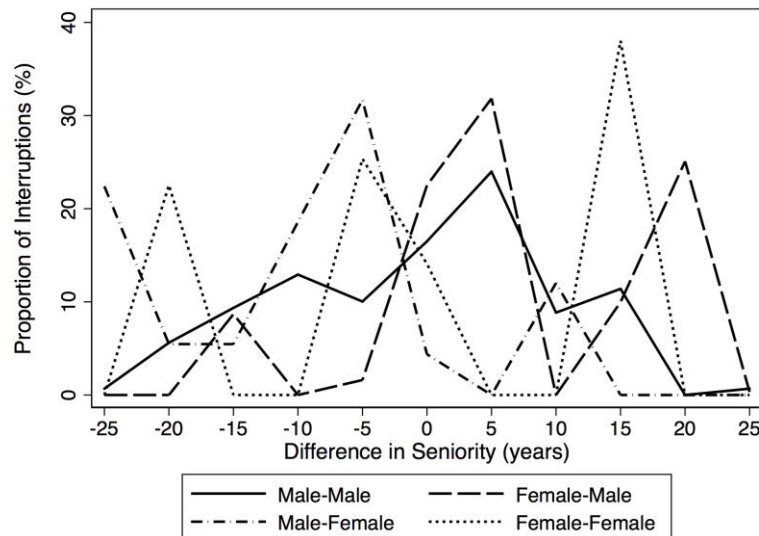
Figure 8: Proportion of Male-Female Interruptions, by Seniority

Figure 8 presents the same data as appears in Figure 7, 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 women interrupt less often; but once presented as a proportion of the number of times a 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

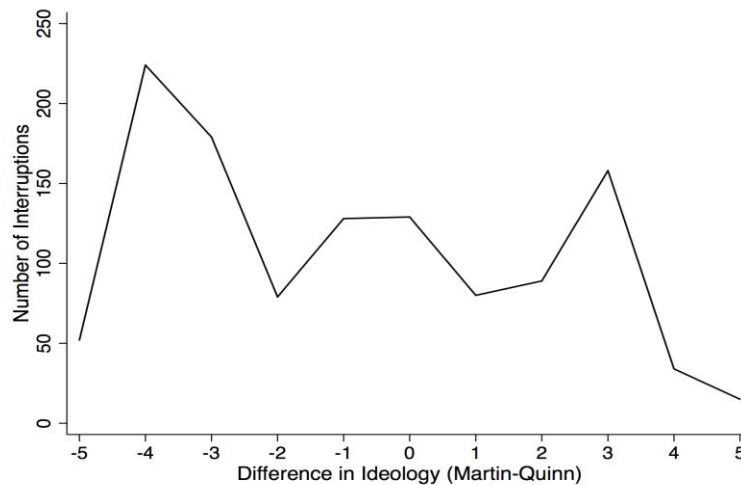


Figure 9 shows the ideological distance between the interrupter and the interruptee, by taking the Martin-Quinn ideological score of the interrupter minus the score of the interruptee, similar to the way we measured difference in seniority. Recall that Martin-Quinn scores are negative for liberal Justices and positive for conservative Justices, and thus interruptions in the left, negative side of the graph involve more conservative Justices interrupting more liberal Justices, and interruptions occurring in the right, positive side of the graph are of more liberal Justices interrupting conservative Justices. 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, suggesting that the moderate interruptions are being driven by

conservatives interrupting moderates, or by moderates interrupting liberals, with fewer interruptions of moderates by liberals. Thus, Figure 9 lends support to the main ideology hypothesis, that ideology is relevant to interruptions, but it also lends some support to the median power hypothesis, that moderates are treated with greater respect than the extremes, due to their powerful positions in coalition formation.²⁴⁷ It also suggests that conservatives interrupt at higher rates, particularly interrupting liberals, an idea that we continue to explore in more detail in Sections II.B and III.D. 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

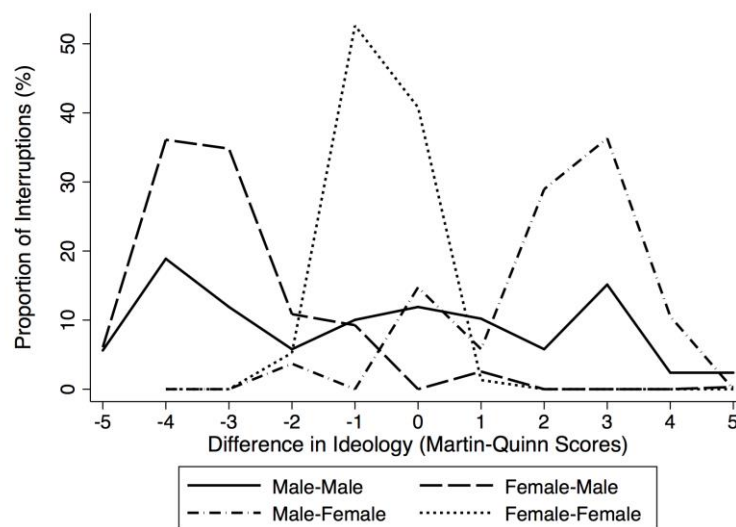


Figure 10 confirms the impression that ideology is relevant to interruptions, but it also illustrates a major problem with looking only at the Roberts Court. Throughout the Roberts Court era, all three of the women were liberal. Inclusion of the 2004 Term, with moderately conservative Justice O'Connor, 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

²⁴⁷ See *supra* notes 40 and 188 and accompanying text.

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) were 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, and 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 noninterruption, 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: (1) provides strong confirmation of a gender effect; (2) 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 (3) 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.²⁴⁸

For our ideology variable, we use Martin-Quinn scores for each Justice, but we make two important adjustments. First, Martin-Quinn

²⁴⁸ In contrast, Feldman and Gill use interruptions as a proportion of words spoken—see Feldman & Gill, *supra* note 85, at 45—but proportional analysis can be quite misleading. See *supra* Figures 7, 8, 9 and accompanying text.

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 seemed to take less controversial cases than normal,²⁴⁹ 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 variables.²⁵⁰ 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.²⁵¹

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, even if the second case of itself was not especially controversial. As such, instead of controlling for salience, in Model 4 in our regressions, we include

²⁴⁹ See, e.g., Lawrence Hurley, *Divided U.S. Supreme Court Cautious About Taking New Cases*, Reuters (Apr. 4, 2016, 5:55 PM), <http://www.reuters.com/article/us-usa-court-vacancy-idUSKCN0X12CK> [<https://perma.cc/QW62-Z3YA>].

²⁵⁰ Feldman and Gill find no effect for ideology, but they do not make this adjustment. See Feldman & Gill, *supra* note 85, at 49, 52.

²⁵¹ Our approach means that we lose one year for each of the Justices who joined the Court after 2004.

docket-fixed effects, which essentially discount *any* variation stemming from the case itself, not just its salience.²⁵²

Another mechanism we use to make sure we are not overincluding nonsalient 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.

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, 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—using Justice-fixed effects, fixed effects for Justice and Term, and fixed effects for Justice and docket, respectively.

Table 7: Interruptions, by Gender, Ideology, Seniority, and 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.

²⁵² This increases the standard errors, making it harder to find any statistically significant effect. As such, it gives us greater confidence that any effect found is strong because it is enough to overcome this higher burden.

2017] *Interactions at Supreme Court Oral Arguments* 1451

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 highly statistically significant—we can be extremely confident that the effect is not random, as it could only randomly occur in less than 0.1% of potential scenarios. In Models 3, 4, and 5, the gender variable is only significant at the 0.10 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 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 five 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 0.05 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 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 is 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.

Figure 11: The Roberts Court Compared to a Gender-Neutral Court

We can test how the Court compares to a court where gender does not matter. Figure 11 shows the proportion of interruptions by male Justices of both male and female speakers during the Roberts Court. It shows the actual numbers compared to the numbers that would be expected under gender neutrality. The male Justices are interrupting other male Justices, shown on the left side, at rates proportional to their numbers—the actual interruptions and interruptions expected under neutrality are the same. On the right side, however, we see interruptions by male Justices of female Justices, for which there is a significant difference between actual interruptions and interruptions expected under neutrality. Male Justices are interrupting the female Justices 10% more than would occur under a gender-neutral court, which establishes that gender has a substantively significant as well as statistically significant impact.

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

2017] *Interactions at Supreme Court Oral Arguments* 1453

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 of Table 7, 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. The reason is that, in 2004, Justice 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.²⁵³ 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 12 and 13 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.

²⁵³ Feldman and Gill avoid this finding by excluding O'Connor (as well as Thomas and Rehnquist) from their analysis. See Feldman & Gill, *supra* note 85, at 46. In doing so, they effectively exclude the 2004 Term from their analysis and amplify the gender-ideology covariance in the 2004–15 data. 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 12: Effect of Gender on Percentage of Interruptions, by Ideology

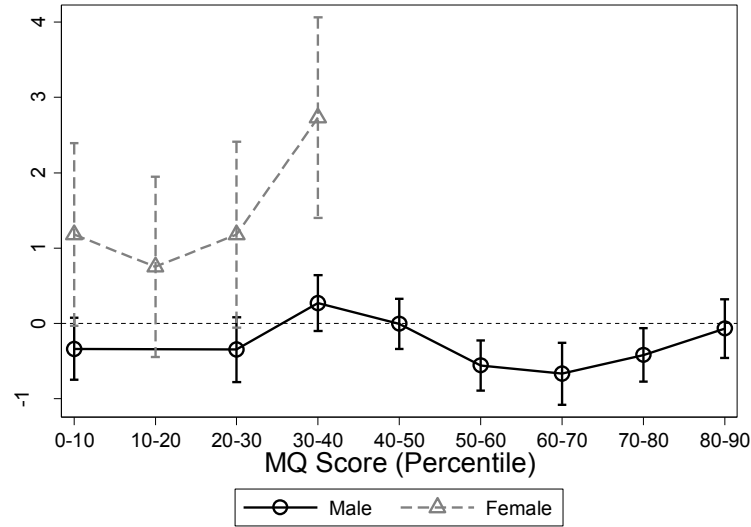
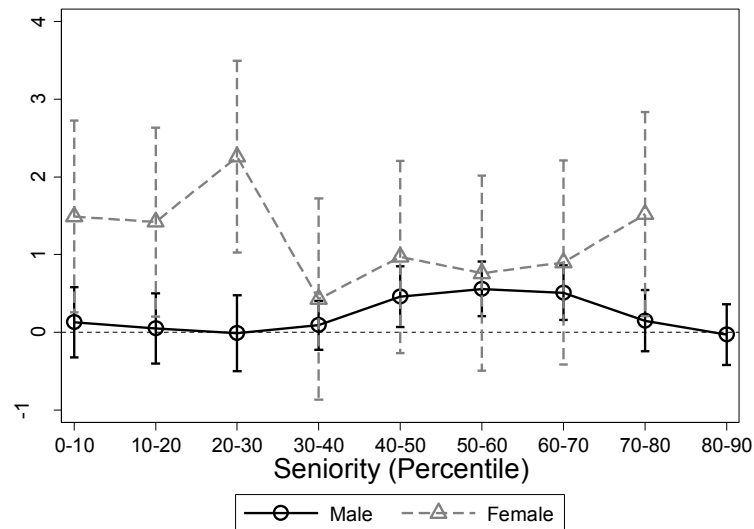


Figure 13: Effect of Gender on Percentage of Interruptions, by Seniority



2017] *Interactions at Supreme Court Oral Arguments* 1455

The male and female lines in each graph are quite clearly different, with the female Justices being consistently 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 they 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 be confident only 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. 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 high significance—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 2004–15 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 more ideological variation among female Justices, including both ideology and gender in the same analysis takes away the explanatory power of both. These results strongly suggest, however, 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 2004–15 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.

III. 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 argument data covering 2004–15, 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), and in two of the three years, to have variation in ideology of the female Justices. That allows us: (1) to test whether the gender effects we identify for the Roberts Court are consistent over time; (2) to begin to assess whether having different proportions of men and women on the Court affects the behavior of either gender; and (3) 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 median²⁵⁴ 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.

²⁵⁴ See Epstein & Jacobi, *Super Medians*, *supra* note 40, at 39–44 (detailing the importance of the median Justice).

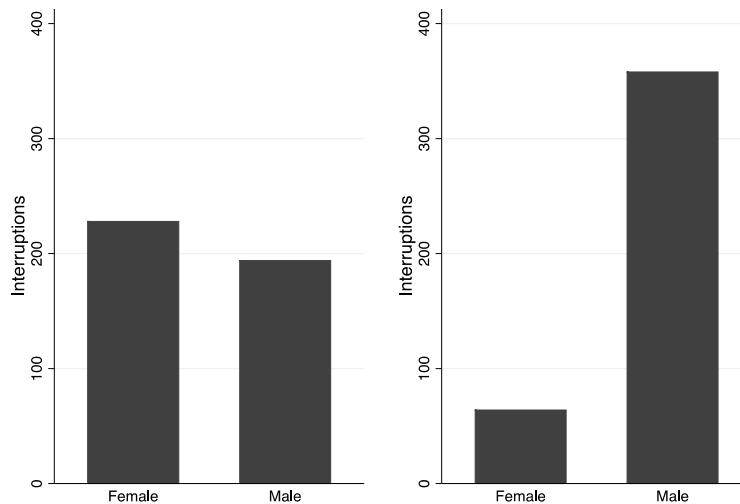
Before developing our coding scheme, we listened to dozens of oral arguments from the last five years. Once again, we coded the data by searching the transcript of every oral argument in the 1990, 2002, and 2015 Terms for the ‘--’ that indicates an interruption or a break. Additionally, where an interruptee 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 14 and Table 8 present the unadjusted figures for interruptee and interrupter, by gender.

Figure 14: Gender of Interruptee and Interrupter, Overall



As Figure 14 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 54% 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 78% 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 Justice 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

2017] *Interactions at Supreme Court Oral Arguments* 1459

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 were the cause of the disruptive culture, we would also expect Scalia to immediately be leading the charge of interruptions, but as we see below in Table 12, 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 also 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, 26.3% 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 frequently 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,²⁵⁵

²⁵⁵ See, e.g., Aaron A. Dhir, Challenging Boardroom Homogeneity: Corporate Law, Governance, and Diversity 53–54 (2015) (describing how traditional directors resisted calls for diversification in corporate boardrooms and sought to protect their privileged status). Note, however, that when numbers rose sufficiently, some of the ill effects of gender, power, and interruptions were mitigated. See Mendelberg & Karpowitz, *supra* note 4 (describing findings that “once women made up 60 to 80 percent or more of a group, they spoke as much as men, raised the needs of the vulnerable and argued for redistribution (and influenced the rhetoric of their male counterparts)” and “[t]hey also encountered fewer hostile interruptions”). For more detail, see Karpowitz & Mendelberg, *supra* note 236 (showing how different institutional rules affect the relative power between men and women).

such as legislators,²⁵⁶ 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.

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 seven, six, or five 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 than men.

In addition, we looked at whether Justices' responses to interruptions are gendered. We coded for whether an interrupter recognizes that he or she had interrupted another Justice, as well as for whether, having made that recognition, the interrupter then defers to the interruptee—i.e., cedes the floor to the interruptee instead of continuing, regardless. Examples of the former include saying “excuse me” or “I’m sorry.” Examples of the latter include saying “go ahead” or “please” and allowing the interruptee to continue with the original question. Table 10 summarizes the results.

²⁵⁶ See *supra* text accompanying note 132.

Table 10: Recognition of Interruption and Deference to Interruptee, by Gender-Pair

Interrupter-Interruptee	Percentage	
	Recognition	Deference
Male-Female	12	9
Female-Male	26	21
Male-Male	18	15
Female-Female	33	29

Table 10 shows that of all of the possible pairs of interactions, men are least likely to recognize when they have interrupted a woman—despite the commonness of this occurrence. Note the results are in percentage terms, so we are controlling for the high number of interruptions by men and of women. Men are less likely to recognize any kind of interruption they have made—women are 30% more likely to recognize when they have interrupted a man than another man is, and women are 64% more likely to recognize an interruption of a woman than a man is. But men’s blindness to interruptions is particularly stark when they are interrupting women—they are 33% more likely to recognize when they have interrupted a fellow man than when they have interrupted a woman. Thus, men do not simply interrupt women more; they are also more likely to ignore their own interruptions than to acknowledge them when interrupting a woman than a man. Table 9 shows that women interrupt men more than they interrupt women; when this is adjusted for the proportion of men and women on the Bench, women actually interrupt women more often than they interrupt men. This finding is consistent with findings in other areas, but interestingly Table 10 shows that nonetheless women are 21% more likely to recognize an interruption of a woman than an interruption of a man.

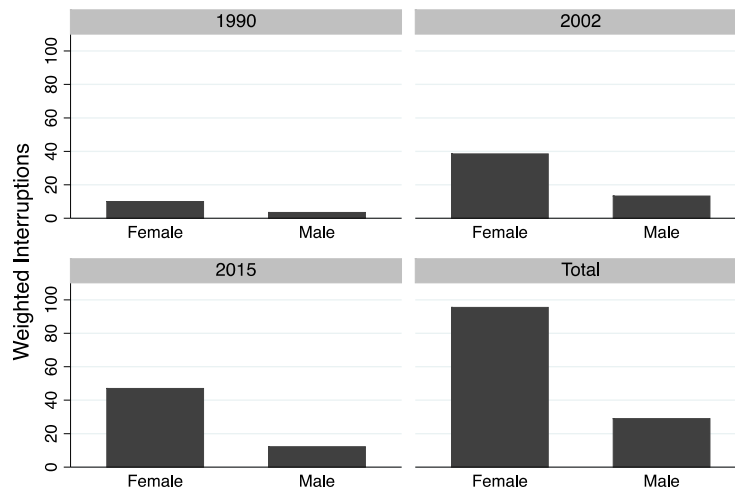
The same gendered pattern arises in respect of how common it is for an interrupter, having recognized an interruption, to continue or to defer to the interruptee. Once again, by far the lowest likelihood event is for a man to defer to a woman he has interrupted—this occurs less than 10% of the time that men interrupt women. They are 40% more likely to give the floor over to a male than a female interruptee. And once again, women are much more likely to defer—almost 30% more likely to defer to a man than another man is, and a whopping 69% more likely to defer

to a woman than a man is. And once again, women are most likely to defer to other women.

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.²⁵⁷ Figure 15 shows the results.

Figure 15: Gender of Interruptee, Normalized, by Year



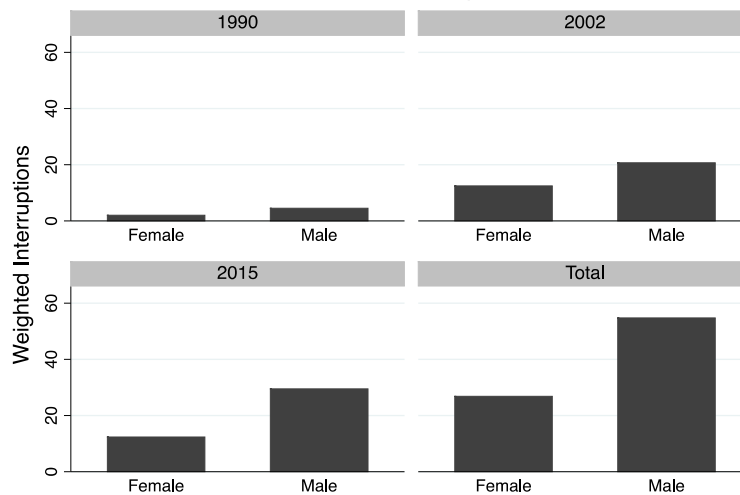
In Figure 15, we see that in every Term, and overall, the average man was interrupted far less than the average woman. In 1990, Justice O'Connor was interrupted 10 times, and the average man was interrupted fewer than 3.5 times—in other words, O'Connor was interrupted 2.9 times as often as the average 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

²⁵⁷ In 1990, with only one woman, we are directly comparing O'Connor with the average of the male Justices.

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,²⁵⁸ 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 16.

Figure 16: 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.

²⁵⁸ See *supra* note 236.

Overall, these differences are significant, as illustrated in Table 11, 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 11: Significance of Differences Between Observed and Neutral Gender Effect

Interruptees

Year	Expected Proportion	Observed 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 among interruptees is significant, but the difference among interrupters is not significant. This is probably due to the low sample size in that Term, but note that it displays the same gendered direction. With more observations in 2002 and 2015, the gender difference among interrupters is highly significant ($p \leq 0.01$), as it is for all years in terms of interruptees. 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 12 presents the results.

Table 12: Interruptees & Interrupters, Ordered as Fraction of Interruptions

Interruptee	Weighted Fraction	Interrupter	Weighted Fraction
Ginsburg	0.18	Kennedy	0.17
Sotomayor	0.10	Scalia	0.14
O'Connor	0.10	Rehnquist	0.13
Scalia	0.09	M-Advocate	0.09
Kennedy	0.09	Stevens	0.07
Breyer	0.08	White	0.06
Kagan	0.07	Breyer	0.06
Stevens	0.06	Roberts	0.05
White	0.06	Ginsburg	0.04
Souter	0.05	O'Connor	0.04
Rehnquist	0.04	Marshall	0.04
Alito	0.03	Alito	0.03
Roberts	0.03	Souter	0.03
Blackmun	0.01	Kagan	0.03
		Sotomayor	0.01
		F-Advocate	0.00

The left two columns of Table 12 show 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 in the three Terms we examine here. Kagan is the exception for women, but still lands in the top half of interruptees. Ginsburg is interrupted six times as often as her junior 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 12 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.

The right two columns of Table 12 conduct 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. 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 the ninth and tenth positions. 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, behind Kennedy, not first, 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. This is a striking result for three reasons. First, there is a strict norm that advocates are meant to immediately cede to the Justices during oral argument; given that we discount one or two word interruptions, so as to avoid counting any accidental overlapping speech, 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. Second, there are far more male advocates than there are male Justices. This shows that the gender effect we identify, whereby female Justices are constantly interrupted at disproportional rates, is not a product of a small group of idiosyncratic men who just happen to be Justices during this time and happen to interrupt a lot. Rather, across a large group, men are interrupting female Justices, whether they are the female Justices' formal equals or their formal subordinates. Third, the contrast between the behavior of the male advocates and the female advocates is

extraordinary. Female advocates register as indifferentiable from zero in terms of interrupting Justices—the female advocates play by the rules but the male advocates do not. We think this gives a glimpse into the nature of the legal profession and the expectations that apply differently to men and women. Even female advocates of such accomplishment as to be arguing before the Supreme Court behave very differently from their male counterparts; we do not believe this is because female advocates are any less innately assertive than men. Rather, the gross breach of the written rules that advocate interruptions of Justices constitutes would be far less tolerated when done by women than when done by men.

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 Term are attributable to a small number of Justice pairs. Table 13 includes those pairs that account for the top half of interruptions in each Term.²⁵⁹

Table 13: Interruptions as Pairwise Interactions, Top 50%, by Year

<i>1990</i>		
Justice Interaction	Percentage	Cumulative
Rehnquist-O'Connor	13.1	13
White-Scalia	7.9	21
Rehnquist-White	7.9	29
White-Rehnquist	5.3	34
Stevens-O'Connor	5.3	39
Stevens-White	5.3	45
Scalia-Stevens	5.3	50

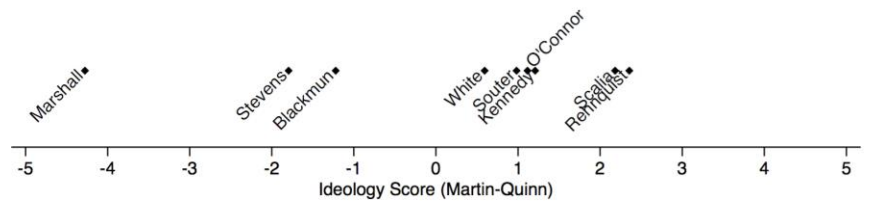
²⁵⁹ In 2015, we list more than the top half, since seven pairs tied for the eleventh position.

<i>2002</i>		
Justice Interaction	Percentage	Cumulative
Kennedy-Ginsburg	9.4	9
Scalia-Ginsburg	6.5	16
M-Advocate-Ginsburg	5.9	22
Breyer-Ginsburg	5.9	28
Rehnquist-Ginsburg	5.3	33
Stevens-Ginsburg	3.5	36
Ginsburg-Souter	3.5	40
Scalia-Breyer	2.9	43
Scalia-Kennedy	2.9	46
Souter-Ginsburg	2.9	49
Scalia-Souter	2.9	52
Ginsburg-Breyer	2.9	55
<i>2015</i>		
Justice Interaction	Percentage	Cumulative
M-Advocate-Sotomayor	7.9	8
Kennedy-Sotomayor	6.5	14
Kennedy-Ginsburg	5.1	20
Alito-Sotomayor	5.1	25
Kennedy-Kagan	4.7	29
Scalia-Kagan	4.7	34
Roberts-Sotomayor	4.2	38
M-Advocate-Kagan	2.8	41
M-Advocate-Roberts	2.8	44
Roberts-Kagan	2.8	47
Kagan-Sotomayor	2.3	49
Kagan-Ginsburg	2.3	51
Scalia-Sotomayor	2.3	54
Alito-Kagan	2.3	56
Breyer-Kagan	2.3	58
Roberts-Alito	2.3	61
M-Advocate-Breyer	2.3	63

In 1990, 50% of the interruptions are comprised of just seven Justice pairs, two of which were male Justices interrupting Justice O'Connor,

the sole female Justice. 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 17:

Figure 17: Martin-Quinn Scores, 1990



Epstein and 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.²⁶⁰ If the preferences of the median are close to the 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.²⁶¹ 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 was interrupted 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 almost half (45%) of all interruptions in the 2002 Term. Additionally, coming in equal third place in terms of interruptions are male advocates interrupting Ginsburg.

²⁶⁰ Epstein & Jacobi, *Super Medians*, supra note 40, at 78.

²⁶¹ *Id.*

In contrast, to see male advocates interrupting a male Justice, it is necessary to look all the way down to the fortieth spot. The male advocates, it seems, also feel entitled to interrupt the female Justices.

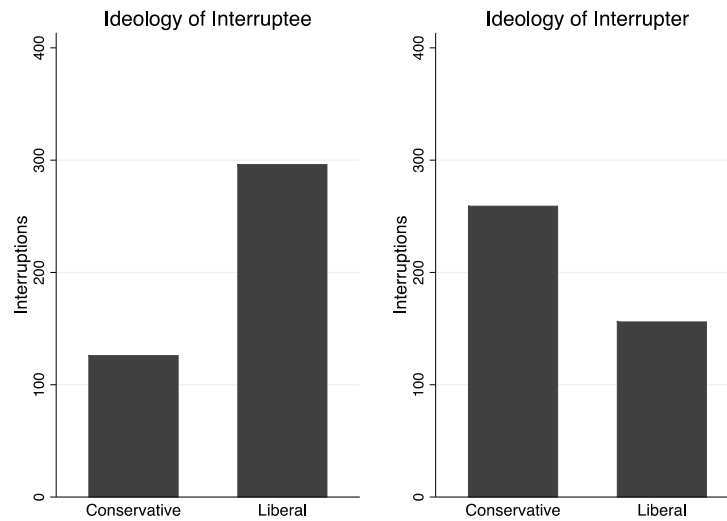
In 2015, it is notable that the three women constitute the top eight interruptees in the Justice-to-Justice pairings. Astonishingly, the most common interruption in 2015 is male advocates interrupting a female Justice: Sotomayor. Male advocates also interrupt Kagan, Roberts, and Breyer at surprisingly 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 of male Justices and 27 female of female Justices), there were only two interruptions by female advocates in 2015, both of Sotomayor.

E. Interruptions by Ideology—Conservatives v. 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 18 present the results, looking at both interruptees and interrupters in terms of ideology.

Table 14: Interruptions by Ideology, Interruptee and Interrupter

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 18: 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 in each year. 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.²⁶² But we expect it is far more likely that, instead, the effect is a cross-ideological one, rather than an

²⁶² In addition to studies showing biological differences between liberals and conservatives—see Kanai et al., *supra* note 29—others have argued there are personality differences, particularly in regard to a tendency toward authoritarianism versus empathy—see Bob Altemeyer, *The Authoritarian Specter* 3–4 (1996).

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	21.80	68.48
Liberal-Conservative	65	15.40	83.89
Conservative-Conservative	61	14.45	98.34
Neutral Advocate-Liberal	7	1.66	100.00
Total	422	100.00	

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.²⁶³

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 36% 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 interrupts liberals more than conservatives. Interruptions of liberals account for over 70% of all of our interruptions. These results, too, are consistent with our findings for the Roberts Court.

²⁶³ Harold J. Spaeth et al., Supreme Court Database Code Book, Version 2015 Release 03, 1, 51 (2016), http://supremecourtdatabase.org/_brickFiles/2016_01/SCDB_2016_01_code_book.pdf [<https://perma.cc/Y25Q-CY2T>]. 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.

2017] *Interactions at Supreme Court Oral Arguments* 1473

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 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.²⁶⁴ 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 and West theory of interruptions as part of a social hierarchy—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.

²⁶⁴ 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*, Politico: Politico Mag. (June 28, 2016), <http://www.politico.com/magazine/story/2016/06/supreme-court-abortion-decision-rightward-run-over-213996> [<https://perma.cc/2TZ7-3SJ8>] (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.

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

2015					
	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

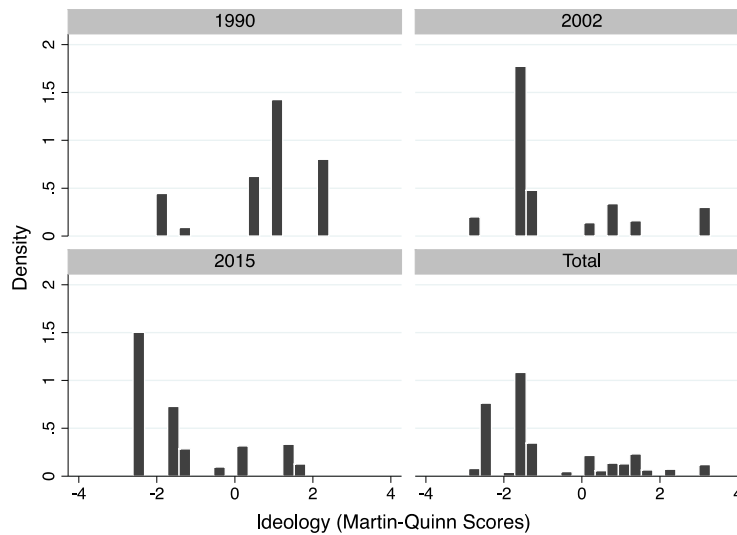
The ideological difference score confirms the results above that looks simply at conservative versus liberal categories. In 2002 and 2015, the direction of interruptions is strongly one of more conservative Justices interrupting less conservative Justices—not simply across the liberal-conservative divide, 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.²⁶⁵ 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 19 shows the frequency of being the interruptee, and Figure 20 looks at the ideological distribution of interrupters.

Figure 19: Frequency of Being Interruptee, by Ideology



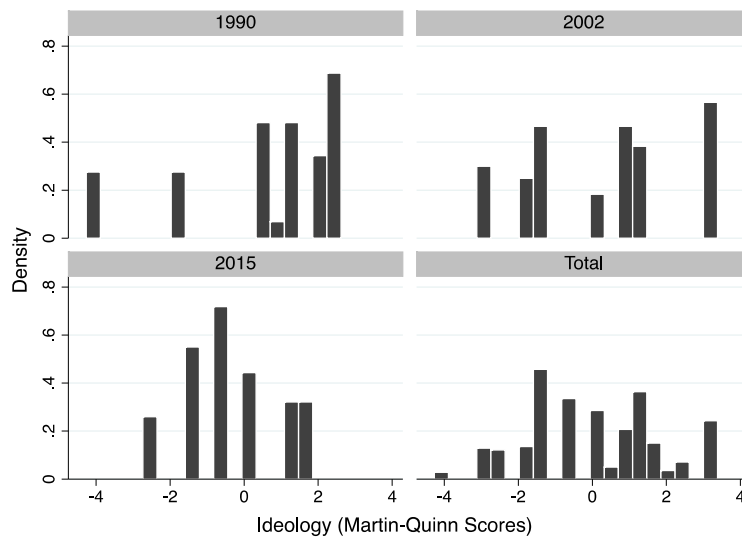
In Figure 19, the tallest bar in each Term is a female Justice—O'Connor in 1990, Ginsburg in 2002, and Sotomayor in 2015. We see a leftward tilt in interruptees in 2002 and 2015, and a rightward tilt in 1990—this tracks the ideological positions of the women on the Court. This strongly suggests that gender has a very strong effect, even accounting for ideology. But it also suggests that the effect of gender

²⁶⁵ 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

might be combined with the effect of seniority, since it is the most junior female Justice in each Term who was interrupted the most. We test the effect of seniority below.

Figure 20: Frequency of Being Interrupter, by Ideology



When looking at interrupters, the spread is much more even in terms of ideology. In 1990, Rehnquist 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 that 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 0.000.²⁶⁶ That is, the difference between the genders is well less than a 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 0.004.²⁶⁷ Once again, there is less than a 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 on judicial behavior and the dearth of research 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 17: Interruptions Within and Across Gender and Ideology

Table 17A: Interruptions Within and Across Gender

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

Table 17B: Interruptions Within and Across Ideology

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

²⁶⁶ Female in this context is a binary variable wherein 1 = female and 0 = male.

²⁶⁷ Liberal in this context is a binary variable wherein 1 = liberal and 0 = conservative.

Table 17C: 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 17 shows the occurrence of interruptions, varying by same-gender and same-ideology versus opposing-gender and opposing-ideology. On raw numbers, simply comparing Tables 17A and 17B, 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. This is misleading, however, because there has been a far more evenly distributed range of ideological views on the Court compared to the gender distribution. More telling are the comparisons in Table 17C: 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 the interruptions occurring. This shows that ideology and gender seem to work together in an interactive effect.

This conclusion is confirmed by Table 18, which summarizes the correlations between these categories, and the level of significance.

Table 18: 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 17 and 18 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 that people interrupt those who are different from them. Table 18 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.

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 fewer 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. 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 19.

Table 19: Interruptions by More and Less Senior Justices

Term	Seniority			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 more junior Justices than vice versa. As we have seen previously, as 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 and ideology but is actually reasonably robust over time.

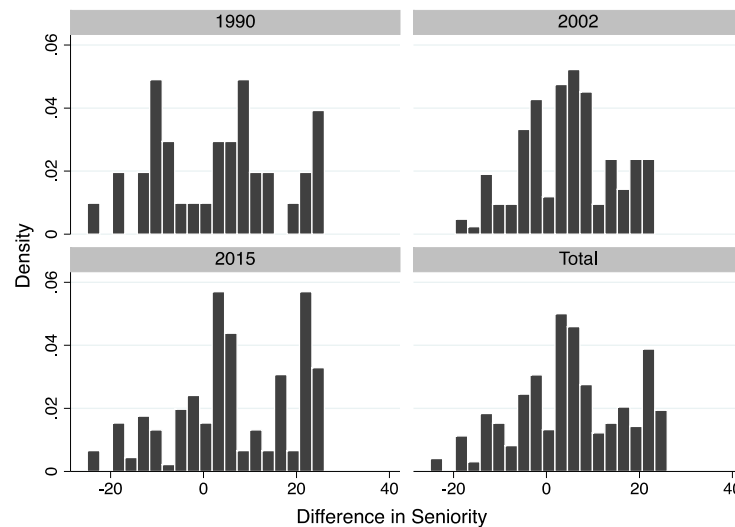
By way of comparison, Table 19 includes the rate of interruptions by advocates, which is also increasing, to the point where it is almost the same as the rate at which more junior Justices interrupt more senior Justices. This suggests that whereas the norm of advocates not interrupting the Justices seems 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 20 and Figure 21 present 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 20: 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 the seniority gap in interruptions is increasing over time, but we cannot safely conclude that means the seniority norm is growing stronger. This is 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 their fifties. In fact, this conclusion is belied by the minimums and maximums in Table 20: at least one Justice twenty-five years senior to another Justice is nonetheless interrupting him or her.

Figure 21: Interruptions by Difference in Seniority

When we look more closely at the breakdown by seniority in Figure 21, 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 21: 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 21, the correlation between gender and less-more seniority is in no way significant, but it is highly significant and negative when we correlate within gender and more-less seniority. 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 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 that the effect of seniority can disappear with the introduction of gender into the regressions. As such, we conclude that there is a consistent seniority effect, but its impact is small and it is definitely tertiary—well behind the effect of gender and ideology.

CONCLUSION: IMPLICATIONS AND RECOMMENDATIONS

Our findings clearly establish that women on the Supreme Court are interrupted at a markedly higher rate during oral arguments than men. 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 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 the effect is small. The most significant effect of a lengthy tenure on the Court is that, with time, female Justices learn to stop using the female register, in particular framing words such as “may I ask,” which primarily operate to give men an opportunity to interrupt.

These three variables do not operate in isolation, but rather compound, such that senior male conservative Justices are far more likely to interrupt junior female liberal justices. All of our results were consistent throughout the Roberts Court and further back in time, all the way to the 1990 Term. The fact that gender, ideology, and seniority all influence interruptions among the Justices is extremely significant because interruptions of this kind constitute a breach of norms of equality (gendered interruptions) and neutrality (ideologically driven interruptions), and 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,²⁶⁸ it follows from 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 arguments 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.²⁶⁹ When a Justice is

²⁶⁸ Johnson et al., Pardon the Interruption, *supra* note 67, at 350.

²⁶⁹ See *supra* Section I.B.

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 show 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 add strength to Zimmerman and West's theory²⁷⁰ that microlevel 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 conservative 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 couple recommendations. First, we recommend raising awareness of this issue through further research, because both men and women need to be cognizant of these occurrences. For obvious reasons, men need to recognize that this occurs in order to change their behaviors, while

²⁷⁰ Zimmerman & West, *supra* note 99.

2017] *Interactions at Supreme Court Oral Arguments* 1485

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 framing their questions more forcefully, 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 Justice should also enforce the existing rule that prohibits advocates from interrupting the Justices, as this would set an example for the 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 could direct the advocate back to the interruptee, or could allow the interrupter to ask his question but, after the advocate answers, give the floor back to the interruptee. Either way, the Chief Justice 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, "The role of an umpire and a judge is critical. They make sure everybody plays by the rules"²⁷¹ Chief Justice Roberts does fill this role sometimes, but he should apply this mindset more consistently by making the conservative male Justices and advocates play by the rules.

²⁷¹ Confirmation Hearing on the Nomination of John G. Roberts, Jr., to be Chief Justice of the United States: Hearing Before the S. Comm. on the Judiciary, 109th Cong. 55 (2005) (statement of John G. Roberts, Jr.).

