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Chief Justice Burger and the Bench: How Physically Changing the Shape of the Court's Bench Reduced Interruptions during Oral Argument

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During the first oral argument of the Supreme Court's February 1972 sitting, Justice Blackmun scrawled the following in his notes: "New bench separates Brennan and White, hurrah!"[1] The reason for Blackmun's glee? Chief Justice Burger recently hired carpenters to cut the Court's straight bench into thirds so it would resemble a U-shape that wrapped toward the lectern from which counsel argue cases. The change meant that Blackmun would no longer have to sit immediately next to Justices Brennan and White and hear them chit chat during oral argument. The bench angle would now separate them. More broadly, the change meant the Justices could see each other better and more clearly hear one another's questions during oral argument. In short, Burger's hope was that this curved bench would minimize the occurrence of Justices talking over one another while questioning the attorneys.

Did Burger's bench change actually transform how the Justices behaved at oral argument? To answer this question, we analyze the oral argument transcripts from the 1962 to the 1982 Court terms. These data reflect all cases the Court heard ten terms prior to the bench change and ten terms subsequent to the change. Using these data, we examine whether, after the bench change, Justices interrupted their colleagues less frequently than they did when the bench was straight. Our analysis demonstrates that they did. Burger's bench change appears to have been effective.

These results are important for several reasons. First, they tell us something important about how the Court changed at a pivotal point in its history. Such a change had clear ramifications for future Justices and litigants who discuss cases with one another. It also marks another consequential physical change Chief Justice Burger made to the Court that seems to have flown under the radar of historians, legal scholars, and political scientists. Second, the results tell us about how collegial courts might become *more* collegial. Our findings could be applied to other appellate courts in an effort to enhance their collegiality. Third, the results offer some insight into how Chief Justices and chief judges can lead more effectively. By making the structural changes he did to the Court's bench, Burger enhanced collegiality among his brethren. This is important because scholarship on small group decision-making suggests that it is easier to lead more collegial groups. Leaders, such as Chief Justices, might consider making similar changes to enhance their own leadership capacity. In short, while this may seem a small act, small acts can, and often do, add up to major changes.

The remainder of the article unfolds as follows. We begin by discussing Chief Justice Burger's decision to change the shape of the Court's bench. We then examine how oral arguments generally operate at the Court and how Justices use these proceedings. We next discuss scholarship on visual and auditory effects on behavior. We then explain how we retrieved our data and turn to the results of our analysis. We conclude by discussing what these findings mean more broadly about judicial collegiality.

Chief Justice Burger's Decision to Change the Shape of the Bench

Almost immediately upon his swearing in as Chief Justice in 1969, Warren E. Burger set his sights on reforming the Supreme Court and the federal judiciary—and reform them he did. In fact, by the time he retired in 1986 Burger had changed many aspects of the federal judiciary. Consider that he helped establish the Supreme Court Historical Society, the Institute for Court Management, the National Center for State Courts, the Judicial Fellows Program, and the National Institute of Corrections. He also saw potential in the Federal Judicial Center and improved its function. More broadly, Burger secured increased funding from Congress for more judgeships and worked with Congress to create the United States Court of Appeals for the Federal Circuit.[2] As Chief Justice of the United States, he adopted the practice of issuing a state of the judiciary document.

Many of Burger's reforms targeted the Supreme Court itself. For example, he ensured that the *Court Reporter* would prepare and publish the syllabus—a summary of the Court's opinion—when opinions came down, rather than after they were published. This decision assisted the media in reporting timely on the Court. Without these summaries, journalists sometimes found it difficult to report accurately on the Court's decisions, especially when they worked under tight deadlines.[3] Burger also secured funding to hire more Supreme Court law clerks. In 1970, he persuaded Congress to increase the number of clerks from two to three (the Justices had been able to hire two law clerks per term since 1946). In 1976, he again persuaded members to increase the number of clerks to four per Justice, where the number remains today.[4]

More important for our immediate purpose is how Burger changed the inside of the Supreme Court building. As Woodward and Armstrong tell it, in the summer of 1969 Burger toured the Court with his clerks and the Court Marshal.[5] He saw a dilapidated building, overlooked like an abandoned country farmhouse. Within the courtroom itself, he believed the Justices should have the same sized and shaped chairs rather than the

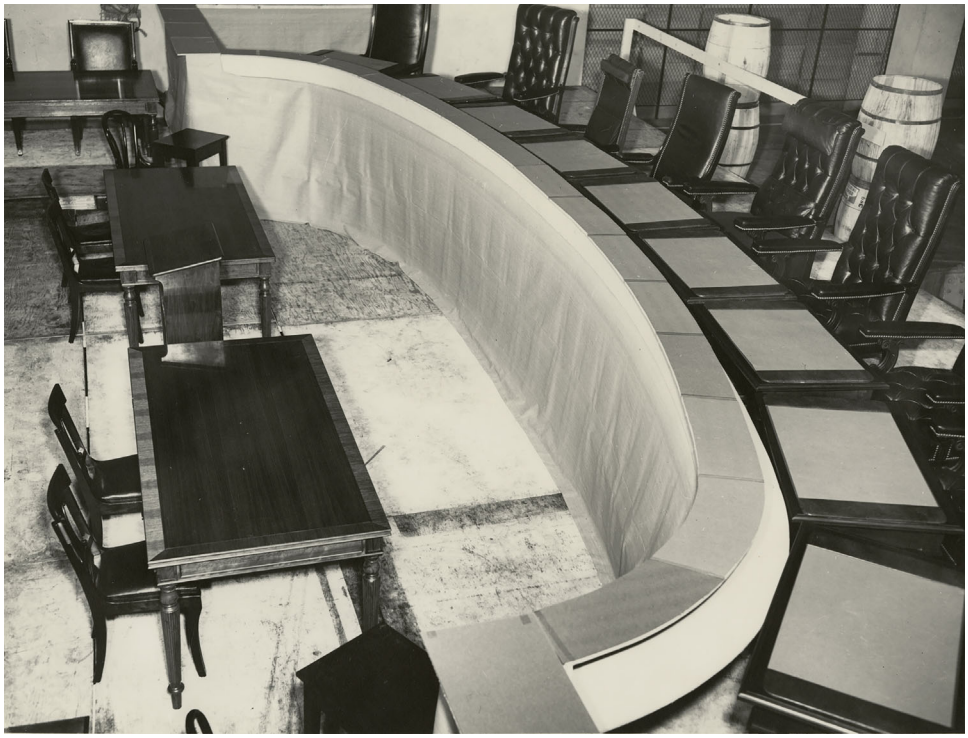
When he became Chief Justice in 1969, Warren E. Burger set out to change the shape of the bench so the Justices could hear and see each other better during oral argument. He told his clerks that he remembered the Justices frequently interrupting each other when he argued cases before the high bench in the 1940s and '50s.

mishmash of chairs they used at the time. Aesthetically, Burger wanted walls repainted, lights replaced, busts of Justices created to line the hallways, and the acoustics improved within the courtroom.[6] For efficiency, he updated the Court's technology with "increased computerization and streamlined docketing."[7] Throughout the building, Burger insisted on adding flowers to make the space more inviting. In short, he turned the Supreme Court into an episode of "This Old House."

A critical change—at least for the lawyers who appeared at oral arguments and the Justices who sat through these proceedings—was Burger's decision to alter the physical bench inside the Court chamber. When he and his clerks toured the courtroom during that summer of 1969, Burger stood at the lectern where he once argued a case before the Justices. As he reminisced, Burger told his clerks that during his oral argument the Justices interrupted one another because they could not see or hear each other very well. "That situation should be changed," he said, "...by curving the bench so each Justice could see his colleagues."[8] In other words, Burger wanted to change the shape of the bench so as to improve the communicative experience and cut down on Justice-to-Justice interruptions.[9]

In the fall of 1971, the Chief announced his decision to change the bench. The public information office released a statement declaring that, during the Christmas recess, the Court would have carpenters come in, cut the bench, and reshape it. As the *Wall Street Journal* put it:

> The Chief Justice is changing the traditional long, straight bench so that the Justices can better see and hear each other. During the Court's



The Supreme Court experimented with building an alternate Courtroom arrangement in the 1950s utilizing an experimental, curved bench that was temporarily assembled in the gymnasium. Each Justice's chair and desk from behind the bench was brought up to the gym and used in this layout, which was never implemented.

> Christmas recess, workmen are to cut the bench into three sections and reposition them in the shape of a half-hexagon.[10]

Other news outlets, including the *New York Times*, reported that the change would cost $8,600.[11]

Not everyone was happy with the change, though. Justice Douglas thought it was unnecessary. As Clare Cushman notes, Douglas believed the Court's new microphones mooted the need for the change. Not one to hold back, Douglas remarked that the bench change was "as useless and unnecessary as a man's sixth Cadillac."[12] The change also moved the location where the press pool sat during oral argument. As the *Wall Street Journal* put it: "The reporters lost . . . the best seats in the house, a few feet from the Justices and from the lectern at which lawyers address the court . . . "[13]

Figure 1 depicts the layout of the Courtroom before and after the change. As Burger requested, the edges of the bench were turned inward to make it easier for the Justices to see and hear one another and for the attorneys to interact more easily with the Justices.

What is more, as Figure 2 indicates, the new bench had the greatest impact on the junior Justices. It improved the experience particularly for Justices Powell and Rehnquist, who flanked the Court's bench. It also

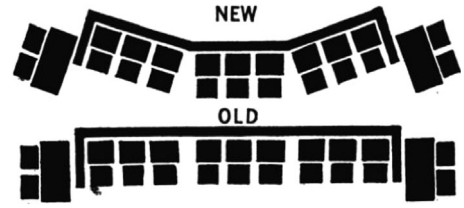


Figure 1. Depiction of the Supreme Court bench before and after Burger's January 1972 change.[14]

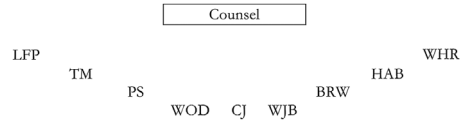


Figure 2. Location of Justices' seats after the January 1972 bench change.

improved the experience for Justices Marshall and Blackmun, who were next farthest from the middle, as well as for Justices Stewart and White. Only the Chief and Justices Douglas and Brennan stayed in their original positions.

The question that motivates us is whether the bench change actually led to fewer interruptions, as Chief Justice Burger intended.

Strangely, scholars have essentially ignored the impact of the bench change despite the fact that the American Bar Association suggested such an analysis may be warranted: "No one responsible for the change has discussed publicly the effect on the lawyer arguing his case at the bar of the Court."[15] Further, in a 1995 interview, former Burger aide Mark Cannon responded to a question about whether the change had the effect his former boss intended it to have. He stated simply: "that's a speculative question. I would only say I think it might have reduced the amount of interruptions; they still occurred occasionally."[16]

Put plainly, whether Burger's change influenced questioning at oral argument remains an unanswered empirical question. We seek to answer that question. But before we do, we describe how oral argument works at the Supreme Court and how it influences the decisions Justices make.

Oral Arguments at the United States Supreme Court

The Court normally sits for oral arguments between the first Monday in October and the last week in April. It schedules cases for argument in two-week sittings. During each sitting, the Court hears two (although sometimes one or three) arguments per day on Mondays, Tuesdays, and Wednesdays. Generally, the Court allots one hour of argument time for each case, with the petitioner and respondent attorneys each speaking for thirty minutes. In highly salient cases the Court sometimes allots more than an hour. For example, oral argument in *Bush v. Gore*[17] lasted an hour and a half while the Affordable Care Act Cases[18] lasted six and a half hours over three days. In addition to the attorneys who argue for each litigant, the Court occasionally allows an interested non-party (*amicus curiae*, or "friend of the Court") to share oral argument time.

At precisely 10 o'clock on argument days, the Justices enter the Courtroom through the red velvet curtains behind the bench. The Court Marshal then rises to proclaim:

> The Honorable, the Chief Justice and Associate Justices of the Supreme Court of the United States. Oyez! Oyez! Oyez! All persons having business before the Honorable, the Supreme Court of the United States, are admonished to draw near and give their attention, for the Court is now sitting. God save the United States and this Honorable Court!

After the Court announces any opinions and concludes motions for admissions to the bar, the Chief Justice bangs his gavel and calls the first case to order. The petitioner's attorney approaches the lectern and begins his or her argument, declaring: "Mr. Chief Justice, and may it please the Court" (Attorneys may use the hand crank on the side of the podium to raise or lower it to an appropriate height). The attorney then stands before the bench and delivers his or her argument to the Justices. To aid attorneys, so they do not exceed their allotted time, the lectern has two lights. When the white light illuminates, the attorney has five minutes left

to argue. When the red light turns on, the attorney's time has expired and she must conclude quickly. Occasionally, such as when the Justices have been particularly loquacious in their questioning, the Chief will extend counsel's time by a few minutes.

Despite the attorneys' best efforts at making a coherent and persuasive argument, the Justices often interrupt them with questions, comments, and hypothetical scenarios related to the case. Consider the 681 cases argued from 1998 to 2007. The Justices asked questions or made comments a total of 87,941 times—an average of more than 129 utterances per case.[19] Put plainly, today's Court is a hot bench. Attorneys must be prepared for regular questions—and for interruptions from the bench. They must also be wary of the Justices interrupting each other.

Today's hot bench is quite different from the Court's early days when great lawyers such as Daniel Webster, John Calhoun, William Pinkney, Francis Scott Key (the same man who wrote the "Star Spangled Banner"), and Henry Clay often appeared before the Justices. Then, oral arguments were elaborate oratories. More importantly, though, they provided the Justices with their only source of information about a case because attorneys rarely, if ever, submitted written briefs.[20] As a result, the Justices placed no time limitation on the argument sessions. This meant that advocates sometimes spoke for many hours over multiple days. In *McCulloch v. Maryland*,[21] for instance, Webster and five other attorneys argued for a full nine days. In stark contrast to contemporary arguments, historians suggest that the early Justices rarely interrupted the advocates with questions or comments.[22]

The Value of Oral Argument as a Discussion among Justices

Justices use oral argument to discuss the merits of cases with each other. In fact, it is the first occasion Justices have to discuss the merits of a case with one another. As Justice Kennedy put it: "The first time we know what our colleagues are thinking is in oral arguments from the questions."[23] In an earlier interview, Kennedy explained how he and his colleagues use oral argument: "When the people come . . . to see our arguments, they often see a dialogue between the justices asking a question and the attorney answering it. And they think of the argument as a series of these dialogues. It isn't that. As John [Justice Stevens] points out, what is happening is the court is having a conversation with itself through the intermediary of the attorney."[24] After all, "Court protocol does not permit justices to address one another directly from the bench, so, as often happens when justices want to do so anyway, the debate between the two was conducted through questions that each posed."[25]

Of course, Justice Kennedy is not the only Justice who believes oral arguments are conversations among the Justices. Justice Scalia, who once publicly suggested oral argument were a "a dog and pony show,"[26] later recanted as he learned that it "isn't just an interchange between counsel and each of the individual justices; what is going on is to some extent an exchange of information among justices themselves."[27] Chief Justice Rehnquist similarly declared: "The judges' questions, although nominally directed to the attorney arguing the case, may in fact be for the benefit of their colleagues. A good advocate will recognize this fact and make use of it during his presentation."[28]

Attorneys who appear before the Court likewise recognize that oral argument is really a discussion among the Justices. Former Solicitor General Theodore Olson once stated: "It's like a highly stylized Japanese theater . . . The justices use questions to make points to their colleagues."[29] Walter Dellinger, another former Solicitor General, pointed out that attorneys are " . . . speaking with not only the justice who

has asked the question, but the one to whom the question is actually addressed."[30] This position is also supported by Shapiro, who notes that: "during the heat of debate on an important issue, counsel may find that one or more justices are especially persistent in questioning and appear unwilling to relent. This may be the case *when a Justice is making known his or her views in an emphatic manner*..."[31] One lawyer summed up this process well saying: "Sometimes I think I am a post office. I think that one of the Justices wants to send a message to another Justice and they are essentially arguing through me."[32]

Court watchers concur with the assessments made by Justices and attorneys. Joan Biskupic points out that "[t]he hour-long sessions in the ornate courtroom also offer the justices a chance to make their own case —to each other."[33] She goes on to suggest that the Justices sometimes make explicit points through the attorneys. In *Garcetti v. Ceballos*,[34] for example, she argues that Chief Justice Roberts tried to get one of the lawyers to alter her arguments when he said to her: "we would have thought you might have argued that it's speech paid for by the government... so there's no First Amendment issue at all."[35] Similarly, after observing arguments in *Danforth v. Minnesota*,[36] Lyle Denniston noted: "...there were sustained moments when it appeared that the Justices were only talking among themselves, often correcting or contradicting each other..."[37] Finally, Linda Greenhouse describes how the Justices sparred with one another in *Reno v. Shaw*[38] to the point where it was as if Chief Justice Rehnquist and Justice Scalia were coaching Shaw's attorneys on how to answer questions from Justice Stevens.[39] She concluded, "While sympathetic Justices occasionally throw lawyers a hand, it is hardly common for members of the Court to assume the role of debate coaches, as Chief Justice Rehnquist and Justice Scalia did in this instance."

Empirical studies support the intuition that Justices use oral argument to persuade each other—or at least to learn where their colleagues stand on the case. For example, Black, Johnson, and Wedeking discover that Justice Blackmun was more likely to record the comments of his ideologically distant colleagues at oral argument than those of his ideologically close colleagues.[40] He did so to "determine what his ideological adversaries think about how they plan to decide a case in an effort to create counterarguments he may make when crafting or joining a majority argument."[41] Similarly, Johnson and Black, Johnson, and Wedeking find that Justice Powell recorded notes of his colleagues' questions at oral argument "to listen to those with whom he may join a coalition."[42]

Beyond providing Justices with an opportunity to discuss a case with one another, Justices also use oral argument to gather information. Indeed, these proceedings can provide Justices with information not contained in briefs, including new information about the facts of a case and the legal or policy consequences of their decisions.[43] Empirical evidence supports the view that Justices use oral argument to gather information beyond what exists in the record. For example, Johnson finds that Justices use oral arguments to obtain additional information about their policy options as well as about the preferences of external actors who will be charged with applying and executing their decisions.[44] Justices also use these proceedings to probe how Congress or the President might respond if the Court decides in a particular way. What is more, roughly eighty percent of the issues raised in Justices' questions appear for the first time in the case at oral argument; that is, the particular issue did not appear in the attorneys' briefs or courts below. Ultimately, thirty-three percent of the issues raised uniquely at oral argument make it into the Court's final opinions.[45]

Simply put, oral argument is important to Justices because (among other reasons) it

The Justices listening to oral argument in the antitrust case *Standard Oil Co. of New Jersey v. United States* in 1911 when the Courtroom was still in the Capitol Building. They posed significantly fewer questions to oral advocates than they do now.

offers them a chance to persuade their colleagues about a case. But why is it that a simple bench change might influence justices' behavior at oral argument? What is it about being able to see and hear their colleagues that might increase collegiality? To answer these questions, we turn to scholarship on visual and auditory connections and small group theory.

A Theory About Visual and Auditory Connections at Oral Argument

We begin with literature on visual dynamics. Scholars have demonstrated that nonverbal communication between and among humans is highly informative and often quickly received.[46] One scholar commented that "the nonverbal channels [of communication] carry more information and are believed more than the verbal band."[47] Humans can often size each other up while glancing at someone in a tenth of a second.[48] It is no wonder, then, that so many Court watchers tell counsel to make careful eye contact with judges.[49]

Eye contact is important for a number of reasons. Generally, it can help a speaker make a point more persuasively; it can also make speakers appear more attractive and more dominant. Higdon[50] describes a number of studies showing that eye contact can achieve sought-after outcomes, including obtaining more charitable donations,[51] getting people to accept pamphlets as they walk by,[52] and getting jurors to rate witnesses as credible.[53]

More important for our purpose, eye contact can foster greater cooperation among individuals. Research tells us that individuals are less likely to interrupt one another when they can see each other. Luo et al. find that eye contact from an interactive partner increases cooperative behavior.[54] Other scholars demonstrate that direct eye contact triggers social behavior.[55] As Conty, George, and Hietanen

describe, eye contact can enhance mimicry and altruistic behavior.[56] Eye contact can lead individuals to judge others to be more likable and credible and to ascribe other positive values to them.[57] One study discovered that subjects were more likely to hire interviewees who held eye contact.[58] Boyle, Anderson, and Newlands find that speakers who cannot see each other are twice as likely to interrupt one another and, conversely, that speakers are better able to transfer information and solve problems when they can see each other.[59]

Auditory dynamics influence behavior as well. Being able to hear another speaker can foster greater cooperation and collegiality among individuals. An inability to hear another speaker strains relationships. The reason is intuitive. As Arlinger indicates, trying to compensate for one's hearing loss makes a person fatigued which, in turn, strains his or her relationships with others.[60]

And the consequences can be dramatic. Blair and Viehwed find that children with even mild hearing loss perform worse academically than their peers.[61] Arlinger reviews literature that shows that older men with hearing loss have reduced cognitive function compared to their peers without such hearing loss. Individuals who strain to hear also commonly experience depression.[62] One study employed an experiment in which the authors provided hearing aids to one group of people suffering from hearing loss but not to another to determine how the groups differed.[63] The results were clear and convincing. The group that received the hearing aid showed "significant improvements in social, emotional, and communicative functions, as well as in cognitive function and depression" while the still-hearing-impaired group did not.[64]

In a brief note about hearing loss and judges, Mullins and Bally make the following point: "the impact of the communication breakdown that accompanies a hearing loss . . . may have a tremendous impact on the function of any professional, especially those [like judges in oral argument] for whom personal intercommunication is essential."[65] Taken together, these findings suggest that, when people cannot hear, decision-making and collegiality can suffer.

At the Supreme Court, evidence suggests that Justices can become frustrated during oral arguments when they cannot hear one another or the attorneys who argue cases. We already mentioned Justice Blackmun's frustration with Justices Brennan and White for making it hard for him to hear during oral argument. His oral argument notes are replete with other notations about his inability to hear various attorneys as well. For instance, in *Ohio v. Akron Center for Reproductive Health*, he wrote: "Hard to hear. Strange voice."[66] Again, in *Suter v. Artist M.*, he noted: "Hard to u[nderstand]."[67] Finally, in *International Union v. Brock*, he wrote: "voice hard for me to hear."[68] The fact that Blackmun took the time to write such words in his notes suggests he was indeed frustrated. The point is that if Justices wish to use oral arguments to help them decide cases, they must be able to hear the attorneys and each other.

Based on the scholarship we discuss above, we expect that Justices interrupted each other less regularly after the bench change than they did before it. The reason is intuitive; being able to see each other likely enhanced their capacity to know when to speak and, similarly, being able to hear each other more effectively likely led to fewer interruptions. Moreover, we expect the largest changes in behavior to have come from Justices farthest from the center of the bench, as their lots improved the most from the bench change.

Analysis of Burger's Bench Change

To gain empirical leverage on our questions of interest, we turn to the cases decided by the Supreme Court from its 1962 to 1982 terms. Interestingly, ours is the first large-scale empirical analysis to use

individual-level oral argument data from terms prior to 1998. Only recently have voice-identified transcripts prior to 1998 become available. Prior to the 2004 term, Supreme Court oral argument transcripts did not identify which Justice spoke. Historically, then, all remarks from the Justices in pre-2004 transcripts were denoted with the moniker "Question" rather than with a Justice's name. Thankfully, the Oyez Project began voice-identifying cases back through 1998 and, since 2015, has cleaned the identification data back to the inception of the Court's oral argument recordings in 1955. These data allow us to test the degree to which Burger's bench change minimized Justice-to-Justice interruptions. To do so, we downloaded transcripts from the Oyez Project and processed them with a computer program to calculate the number of times the transcript indicated that overlapping talking occurred when each Justice was speaking (See the Appendix for additional details).

Consider Figure 3. We plot the average number of interruptions per term from 1962-1982. The black vertical line reflects the 1972 term, the first full term in which the Court sat at the curved bench. Gray horizontal lines reflect the average per term interruptions from 1962-1971 and from 1973-1982, respectively. The figure suggests that there were more interruptions before the bench change than after it. We also performed a simple *t*-test to examine the total number of interruptions in each case. Even this very basic test confirms ($p < 0.001$, two-tailed test) the differences in interruptions before and after the bench change are significant.

While Figure 3 provides a descriptive glimpse into our data of interest, Figure 4 speaks more directly to which Justices benefited the most from the redesigned bench (For the underlying statistical analysis used to generate this figure, see the Appendix at the end of the article). Along the horizontal axis of the figure we indicate how far a Justice is from the middle seat. The vertical axis in the figure identifies the number of interruptions. The circles in this figure represent our prediction about the frequency of interruptions. We use solid circles for the curved bench and hollow circles for the straight bench. The vertical lines running through the circles express our uncertainty around those estimates (i.e., confidence intervals). The differences between a straight and curved bench are large and clear. Consider the center position (i.e., the Chief's seat). The center position under a straight bench experienced 0.31 interruptions while that same position

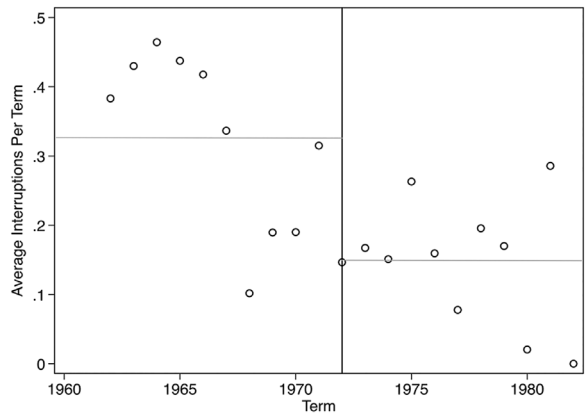


Figure 3. Average Justice interruptions per term 1962-1982. The circles represent the average number of interruptions per term. The black vertical line reflects bench change in the 1972 term. The two gray horizontal lines reflect average per term interruptions from 1962-1971 and from 1973-1982. The difference between the two lines is statistically significant ($p < 0.001$, two-tailed test).

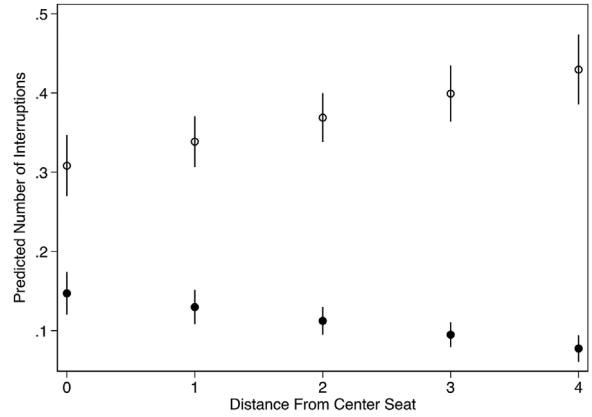


Figure 4. Predicted interruptions with straight (hollow circle) and curved (filled circle) bench.

under a curved bench experienced 0.15 interruptions—less than half.

Looking, next, to the seats immediately to the left and right of the Chief, we observe a more pronounced effect. Under a straight bench, these seats experienced 0.34 interruptions but only 0.13 interruptions under the curved bench. The next seats—those two away from the Chief—see an even greater effect. These, of course, were the first seats to be winged under the new curved bench. Under a straight bench, they experienced 0.37 interruptions. Under the curved bench, however, they experienced only 0.11 interruptions. Three seats from the Chief experienced 0.40 interruptions under a straight bench but only 0.09 interruptions under the curved bench. Finally, consider the flanks: under a straight bench, the flanks experienced 0.43 interruptions but only 0.08 under the curved bench. What is clear is that the Justices farthest from the center of the bench became considerably less likely to be interrupted with the curved bench.

Figure 5 highlights the dramatic shift after the bench change. It shows the effect of changing from a straight bench to a curved bench for each seat location from the center. Importantly, the effect for all seats on the bench is negative, which means that all Justices "benefitted" from the bench change —they all were interrupted less often after the bench change. But, the figure also shows that not all seats benefited equally. Consistent with the results from the previous figure, the bench change had the largest effect on

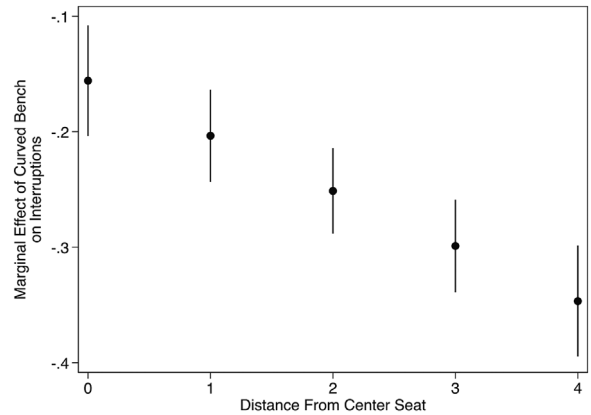
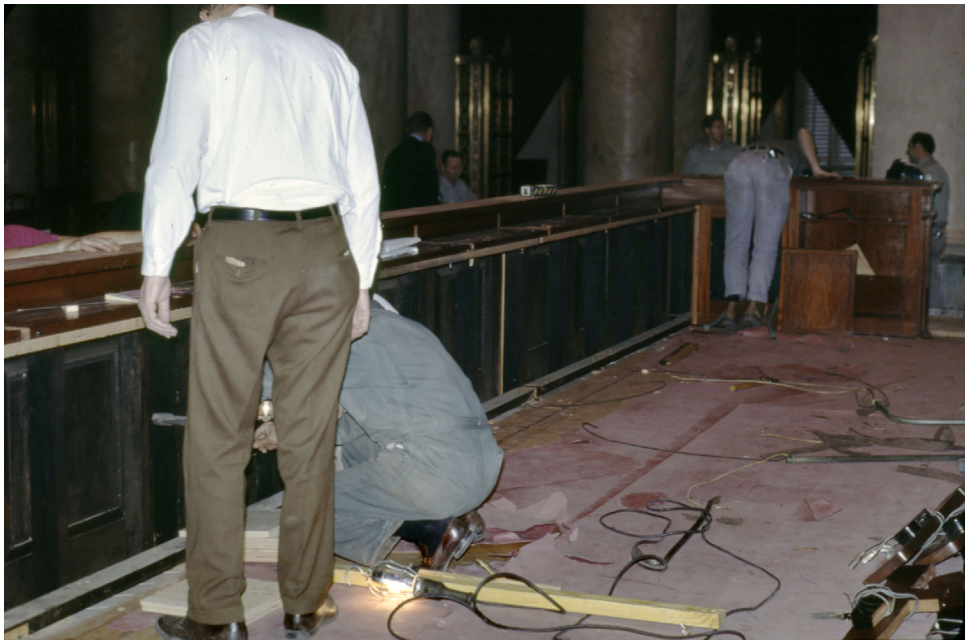


Figure 5. Marginal effect of curved bench on Justice interruptions.



Photograph of the bench in the Supreme Court Courtroom in January/February 1972, when it was altered to create three angled sections for improved viewing and sound. The authors conclude that the bench change led to fewer interruptions by the Justices, particularly of those sitting at the ends of the bench.

Justices farthest from the center position. For example, while the Chief saw a −0.17 decrease in interruptions, the Justices at the flanks enjoyed a −0.35 decrease—over twice the size as the Chief. Simply put, while the bench change led all Justices to be interrupted less often, it had the greatest impact on the Justices at the ends of the bench.

Discussion

Collegiality among governing actors is more important today than ever. Collegiality is what allowed President Reagan to work effectively with House Speaker Tip O'Neill in an era of divided government. It is what allowed Chief Justice Rehnquist to lead a Court effectively with Justices as different as Clarence Thomas and John Paul Stevens. Collegiality is critical for any collective body to operate effectively. Yet, leaders must sometimes grease the wheels to enhance collegiality. People cannot simply step into a moving river and expect to divert its direction. Sometimes collegiality needs a "nudge." And helping actors determine those collegial nudges is becoming more important than ever.

Within collective bodies, leaders can have a significant impact on group cohesion.[69] Those who have a high degree of warmth, an indirect style of leading group interaction, and an internal locus of control (a belief that one can control events that affect their lives) can achieve higher cohesion in their small groups. In an examination of sports team coaches, for instance, Shields et al. found that a group's task cohesion can be strengthened by leadership that is "strong in training and instruction, social support, democratic behavior, and positive feedback."[70]

Here, we examined whether changing the physical structure of the Court's bench—a seemingly trifling matter—influenced how Justices behaved during oral argument. The results indicate that the change had an ameliorative effect on how Justices treated one another. That is, Justices tended to interrupt each other less often after the change than they did before it. And, while

the effects were not huge—one should not expect them to be dramatic given that Justices actually do not interrupt each other all that often—they indicate a positive change.

Perhaps other institutions could adopt similar structural changes to enhance collegiality (and, therefore, effective governance). Surely, we are not likely to return to times where government officials lived with each other in boarding houses—and took their dinners with one another each night—as Chief Justice Marshall insisted the Justices do during his time. But less severe change can, and may, be effective. The Israeli Supreme Court, for example, employs a circular bench with attorneys arguing from the center.[71] Whether this leads to collegiality is unclear, though our results suggest that it does. Closer to home, consider the United States Court of Appeals for the Ninth Circuit, which now has twenty-nine active judges. The circuit must hear cases in modified *en banc* from time to time in panels of eleven judges. When they do so, the judges sit on straight benches that appear like bleachers at a high school football game, with one row behind the other.[72] If our findings have anything to say about the matter, it is that such a configuration reduces collegiality.[73]

The decision to change the shape of the Court's bench may seem like a small matter. But for leaders of collective bodies, any advantage gained in collective harmony is worth considering.

Appendix: Data and Measurement

We coded the transcripts of every oral argument in our sample to determine each time a Justice interrupted a colleague. Specifically, for each case, we downloaded the voice-identified transcripts from the Oyez Project and counted the number of times each Justice spoke during oral arguments. This process yielded a total of 163,094 Justice utterances across 2,015 cases. Consistent with Johnson's findings, these numbers indicate that the Justices collectively asked an average of eighty-one questions per case.[74] And even though eighty-one questions per case is less than the average of more than 120 questions the Roberts Court asks, the number nevertheless reflects an active bench.

We employed a computer script to assess whether, for each Justice utterance, the speaker immediately after the Justice was also a Justice. We are able to accomplish this task because every utterance in the oral argument transcripts begins with a description of who is speaking (e.g., Justice Marshall), followed by a colon. The computer script, then, allowed us to count every time one of the nine Justices' names appeared in the speaker section of an utterance.[75] Our dependent variable, *Overlap*, is the number of times during a session that voice overlap from another Justice appears while each Justice spoke. For example, consider the following exchange in *United States Parole Commission v. Geraghty*,[76] where Justice Stewart interrupts Justice Stevens:

> **John Paul Stevens:** Mr. Jones, are you saying this, so I get your point that if in this case, the District Judge had ordered the man paroled and the Government had acquiesced in the order and said we won't appeal then it would not have been moot? Would that be a different case?
>
> Did someone (Voice Overlap) —
>
> **Potter Stewart:** It'd be more ahead on the previous case.
>
> **Kent L. Jones:** It would—it would be different from the case we have.

Our main independent variable, *Curved Bench*, accounts for whether the bench was straight (=0) or curved (=1) in the case. The first oral argument the Court heard after curving the bench change took place on February 23, 1972. Thus, all cases argued before that date take on the value of zero and all cases argued after that date take on the value of one.

We expect *Curved Bench* to have a negative relationship with *Overlap*. That is, we should observe less cross-talking (interruptions) after the bench change than before it.

Next, we code *Distance from Center*, which is the absolute value of the distance between the center seat and the speaking Justice's seat (we do not code this variable by seat number because we expect Justices equidistant from the center to act in a similar manner to one another). The Chief Justice always receives a value of zero while the Justices at the flanks always receive a value of four. To examine the effects of the curved bench on distance from the center, we interact *Curved Bench* with *Distance from Center*.

We also account for the log of the number of words each Justice spoke, since the more a Justice speaks, the more he or she could be interrupted. *Log Justice Words* measures this dynamic. Finally, we count the *Number of Amicus Curiae* briefs filed in each case to account for the fact that some cases are more salient than others—and might therefore generate more interruptions.[77]

The table below presents parameter estimates from our linear regression model.

Variable	Coefficient (Standard Error)
Curved Bench	−0.161*
	(0.024)
Distance From Center	0.030*
	(0.007)
Curved Bench × Distance from Center	−0.048*
	(0.008)
Log Justice Words	0.093*
	(0.004)
Number of Amicus Curiae	0.003*
	(0.001)
Constant	−0.039*
	(0.017)
Observations	20,497
R-Squared	0.104
Root MSE	0.777

*denotes $p < 0.05$ (two-tailed test)

ENDNOTES

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[5] Bob Woodward and Scott Armstrong, **The Brethren: Inside the Supreme Court**. (New York: Simon & Schuster, 1979).

[6] Tamm and Reardon, "Warren E. Burger and the Administration of Justice."

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[9] Mark Cannon, "Chief Justice Burger Retrospective." CSPAN online. URL: https://www.c-span.org/video/?67037-1/chief-justice-burger-retrospective, 1995.

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[13] Kohlmeier, "Streamlined Bench."

[14] Figure comes from Richard B. Allen and Rowland L. Young, "A Revolutionary Step," *American Bar Association Journal* 58 (1971): 49.

[15] Allen and Young, "A Revolutionary Step."

[16] *See* https://www.c-span.org/video/?67037-1/chief-justice-burger-retrospective&start=NaN (starts at 36:00).

[17] *Bush v. Gore* 531 U.S. 98 (2000).

[18] *National Federation of Independent Business v. Sebelius* 567 U.S. 1 (2012).

[19] Ryan C. Black, Timothy R. Johnson and Justin Wedeking, **Oral Arguments and Coalition Formation on the U.S. Supreme Court: A Deliberate Dialogue**, (Ann Arbor: University of Michigan Press, 2012);

Timothy R. Johnson, **Oral Arguments and Decision Making on the United States Supreme Court**, (Albany, NY: SUNY Press, 2004).

[20] *See e.g.*, Johnson, **Oral Arguments and Decision Making on the United States Supreme Court**, chapter 1; Ryan C. Black and Ryan J. Owens, **The Solicitor General and the United States Supreme Court: Executive Branch Influence and Judicial Decisions** (New York: Cambridge University Press, 2011), chapter 6.

[21] *McCulloch v. Maryland*, 17 U.S. 316 (1819).

[22] Compare Charles Warren, **The Supreme Court in United States History** (Boston: Little Brown, 1922) with Timothy R. Johnson, Ryan C. Black, Jerry Goldman, and Sarah Treul, "Inquiring Minds Want to Know: Do Justices Tip Their Hands with Questions at Oral Argument in the U.S. Supreme Court?" 29(1) *Washington University Journal of Law & Policy*, 241-261 (2009).

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[25] Linda Greenhouse, "Justices Spar over Validity of a District Based on Race." *New York Times*. April 21, 1993.

[26] O'Brien, **Storm Center**, p. 260.

[27] *See* PBS, 1988, "This Honorable Court." Video documentary. Alexandria, VA: PBS Video; Stephen M. Shapiro, "Symposium on Supreme Court Advocacy: Oral Argument in the Supreme Court of the United States," 33 *Catholic University Law Review* 529–553 (1984).

[28] William H. Rehnquist, **The Supreme Court** (New York: Vintage Books, 2001), p. 244.

[29] JoanBiskupic, "Justices Make Points by Questioning Lawyers." *USA Today*. October 5, 2006. Page online. *Available at*: http://www.usatoday.com/news/washington/judicial/2006-10-05-oral-arguments.htm (last accessed 9/27/10).

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[31] Shapiro, "Symposium on Supreme Court Advocacy," p. 547 (emphasis added).

[32] Timothy R. Johnson, Ryan C. Black, and Justin Wedeking, "Pardon the Interruption: An Empirical Analysis of Supreme Court Justices' Behavior During Oral Arguments" 55(2) *Loyola Law Review* 335 (2009).

[33] Biskupic, "Justices Make Points by Questioning Lawyers."

[34] *Garcetti v. Ceballos*, 547 U.S. 410 (2006).

[35] Biskupic, "Justices Make Points by Questioning Lawyers."

[36] *Danforth v. Minnesota*, 552 U.S. 264 (2008).

[37] Lyle Denniston, "Commentary: What Does the Supreme Court Really Do? (SCOTUSblog post)." *Available at* http://www.scotusblog.com/2007/10/commentary-what-does-the-supreme-court-really-do/ (last accessed 9/27/10).

[38] *Reno v. Shaw*, 509 U.S. 630 (1993).

[39] Greenhouse, "Justices Spar over Validity of a District Based on Race."

[40] Black, Johnson, and Wedeking, **A Deliberate Dialogue.**

[41] Black, Johnson, and Wedeking **A Deliberate Dialogue**, p. 71.

[42] Johnson, **Oral Arguments and Decision Making on the United States Supreme Court**; Black, Johnson, and Wedeking, **A Deliberate Dialogue**, p. 15.

[43] Johnson, **Oral Arguments and Decision Making on the United States Supreme Court**; Stephen L. Wasby, Anthony A. D'Amato, and Rosemary Metrailer. **Desegregation from Brown to Alexander: An Exploration of Court Strategies** (Carbondale, IL: Southern Illinois University Press, 1977).

[44] Johnson, **Oral Arguments and Decision Making on the United States Supreme Court.**

[45] *Ibid.*

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[48] Janine Willis and Alexander Todorov, "First Impressions: Making Up Your Mind after a 100-Ms Exposure to a Face." 17(7) *Psychological Science* 592–598 (2006).

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[64] Arlinger, "Negative Consequences of Uncorrected Hearing Loss," p. S19.

[65] Homer S. Mullins and Scott J. Bally, "Hear Ye! Hear Ye! Disorder in the Court." 45 *Judges' Journal* 24 (2006).

[66] *Ohio v. Akron Center for Reproductive Health* (88-805), in Johnson, "The Digital Archives of Justices Blackmun and Powell Oral Argument Notes." http://users.polisci.umn.edu/~trj/OAnotesbyterm75/HAB75/1989%20term/88-805.jpg.

[67] *Suter v. Artist M.* (90-1488), in Johnson, "The Digital Archives of Justices Blackmun and Powell Oral Argument Notes. http://users.polisci.umn.edu/~trj/OAnotesbyterm75/HAB75/1991%20term/90-1488.jpg.

[68] *International Union v. Brock* (84-1777), in Johnson, "The Digital Archives of Justices Blackmun and Powell Oral Argument Notes. http://users.polisci.umn.edu/~trj/OAnotesbyterm75/HAB75/1985%20term/84-1777.jpg.

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[70] David Lyle Light Shields, Douglas E. Gardner, Brenda Jo. Light Brandemeier, and Alan Bostro, "The Relationship between Leadership Behaviors and Group Cohesion in Team Sports," 131(2) *The Journal of Psychology* 196-210 (1997).

[71] To see the Israeli configuration, navigate to: http://elyon1.court.gov.il/eng/siyur/index.html.

[72] To see all of the court configurations at the 9th Circuit, navigate to http://www.ca9.uscourts.gov/. For video footage of an en banc hearing, *see*: https://www.youtube.com/watch?v=JaVOm9dIgfQ.

[73] We are aware of recent findings that suggest male justices are more likely to interrupt female justices (than male justices) during oral argument. See Tonja Jacobi and Dylan Schweers, "Justice, Interrupted: The Effect of Gender, Ideology, and Seniority at Supreme Court Oral Arguments." 103 *Virginia Law Review* 1379-1496 (2017). While that dynamic is an interesting one and worthy of study, we are hesitant to cite the purported findings as fact, as we believe the analyses demand much more extensive empirical scrutiny than heretofore provided. Future studies require a greater number of observations, greater statistical controls, and a deeper analysis of how oral arguments are transcribed. We simply note that further empirical analysis is required before the interruption narrative can be taken as fact.

[74] Johnson, **Oral Arguments and Decision Making on the United States Supreme Court.**

[75] While there is some noise in the data (an interruption that is one word or a "u" for instance), this noise is random and the resulting data generally paint a clear picture of how the Justices treat each other during oral arguments.

[76] *United States Parole Commission v. Geraghty,* 445 U.S. 388 (1980).

[77] Black, Johnson, and Wedeking, **A Deliberate Dialogue**.