

“A VERY COMPETENT JUSTICE”: GENDER AND
RESPONSIVE *ETHOS* IN SUPREME
COURT OPINIONS

By

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Abstract

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In the United States Supreme Court, the language used by Justices in their court opinions is individual to the writer and reflective of their judicial *ethos*. By complicating traditional definitions of *ethos*, the first female Justices on the court, Sandra Day O’Connor and Ruth Bader Ginsburg, exemplify habits suggestive of a responsive *ethos* rather than an assured *ethos*. This responsive *ethos* builds upon Kathleen J. Ryan, Nancy Myers, and Rebeca Jones’ expanded definition of *ethos*, but acknowledges that though O’Connor and Ginsburg would be operating with an embodied *ethos* suggestive of marginalization, they also have a great deal of undeniable privilege and power. To study this responsive *ethos*, computational text analysis methods like machine learning and sentiment analysis display that members of the court with a responsive *ethos* have distinct writing patterns that demonstrate a hyperawareness and vigilance of their more precarious position. This *ethos* also varies depending on whether they are writing a majority, dissenting, or concurring court opinion.

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Dedication

This thesis is dedicated to my family for their support, patience,
and presence throughout the years.

INTRODUCTION

As the highest court in the United States, the Supreme Court handles the most complicated and consequential cases in American politics. To bring a case before the court requires serious competition, as only 100-150 out of about 7000 cases presented for review will be accepted and heard by the court. Nine justices discuss, debate, and decide upon the outcome of controversial cases and, importantly, their decision can conclude in the formation of constitutional law. While the Supreme Court conveys pinnacle influence in the workings of American politics, the court's processes and discussions often remain unknown or mysterious to the American public, other than oral arguments and court opinions. At the same time, changes within the composition of the Supreme Court, particularly the diversification of its members and the process of nominating and swearing in each additional Justice, occur in the magnified focus of mainstream media in the United States. One prioritized concern was the inclusion of female Justices on the court, with Justice Sandra Day O'Connor presiding as the first female Justice in 1981, after being appointed by President Reagan. Following Justice O'Connor's appointment to the court, three other female members have been added: Justices Ruth Bader Ginsburg, Sonia Sotomayor, and Elena Kagan.

The improvement of the gender balance on the Supreme Court initially occurred with a divided public pushing for and against the inclusion of women, even in subtle or insidious ways. For example, Nichola Gutgold's *The Rhetoric of Supreme Court Women* recalls the press commonly referring to Justice O'Connor as "the housewife" or "the lady" during her appointment process (20). Much of this interest focused on what substantive influence O'Connor's gender might have: would she treat cases pertaining to gender-related issues in the same way? Notably, this treatment and focus on O'Connor's gender did not occur in isolation.

She was one of many women who trailblazed the legal profession, in a time when women in the U.S. were still petitioning for the opportunity to work. This skepticism toward O'Connor's ability to fulfill her role as a Supreme Court Justice based on her gender was likely something she responded to constantly, to build *ethos* despite cynicism regarding her abilities. Justice Ruth Bader Ginsburg, who was later appointed to the court in 1993 by President Clinton, attended law school at a similar time as O'Connor, and faced similar prejudice against her faculties and her commitment to a professional legal career.¹ Though Justices Kagan and Sotomayor would have felt the pressures of being women in a male-dominated field, they were not as isolated as Ginsburg and O'Connor during the transition from law student to Supreme Court Justice. They still had to develop *ethos* in response to ongoing prejudice against women, and women of color in Sotomayor's case, but they would not have experienced the same type of discrimination as Ginsburg and O'Connor. This project only begins to explore these intricacies by assessing the judicial style of court opinions through computational text analysis to consider how gender and *ethos* culminate on the Supreme Court.

Several recent projects by Adam Feldman and Rebecca Gill and Tonja Jacobi and Dylan Schweers have identified trackable differences between the language of male and female Justices during oral arguments, but there has yet to be a consideration of whether this difference is reflected in opinions, even with their more formal constraints. By using empirical methods, trackable differences in language and style become more perceptible and readily compared. In comparison to the men who served concomitant to them, the qualities of the language in Justices O'Connor and Ginsburg's opinions show that the women of the court may have adapted to

¹ Ginsburg attended Harvard Law School from 1956-1959, and O'Connor attended Stanford Law School from 1950-1952.

rhetorically persuade their peers and the American public to take them seriously. As the first women to serve on the Supreme Court, the female Justices appear to have developed strategic and responsive rhetorical strategies to navigate a male-dominated court and cultivate a certain *ethos*.

PROJECT METHODOLOGY

To reveal a larger and more overarching picture of the rhetorical choices and judicial styles of Justices Ginsburg and O'Connor, large-scale text analysis is a vital methodology as it identifies and quantifies consistent rhetorical practices. This project's corpus is derived from another study on Supreme Court opinions by George Taylor, Matthew Jockers, and Fernando Nascimento, that focuses primarily on the rhetoric of Justice Scalia (Taylor et al. 2018). Because of this, only Justices who served on the Rehnquist Court (1994-2005) are included in the current corpus, including Justices Breyer, Ginsburg, Kennedy, O'Connor, Rehnquist, Scalia, Souter, Stevens, and Thomas. Though the corpus only includes Justices who served during this period, it contains all opinions written by each Justice, meaning opinions from 1972-2018 are included in the corpus.² Though this would be a limitation if making claims about the rhetoric of Sotomayor and Kagan, it fits the focus of this project: how Justices Ginsburg and O'Connor use language strategically as the first women to serve on the U.S. Supreme Court. The constraints on the Justices included in this corpus actually present the advantage of focusing on two women who entered the legal profession around the same time, and who dealt with more overt prejudice against their presence in law school, the job search, and much of their careers. By looking at Justices Ginsburg and O'Connor, factors like ideology become less dominant in comparison to

² The corpus begins in 1972 to include all Rehnquist's first opinions, and lasts until 2018 to include all opinions before the most recent session.

gender, because O'Connor and Ginsburg are generally presumed to have presided on the court from different perspectives on the ideological spectrum.

Another potential limitation of this project is that court opinions are written collaboratively, with the aid of multiple clerks. Because of this, they are not technically single-author texts and therefore could represent stylistic signals from multiple authors rather than just the Justice in focus. At the same time, however, with 6740 opinions included in the corpus and the constant hiring and replacement of law clerks, the stylistic signals of individual clerks likely counteract each other and neutralize, leaving the Justice's style to come forth. Additionally, the clerks help with the drafting of opinions just as they help with researching and forming any other arguments made by a Justice. At any point of court proceedings, the Justice does not stand completely alone. Furthermore, the amount that a Justice relies on a law clerk's assistance in the drafting of opinions changes from Justice to Justice, making this another attribute of judicial style, as well. Still, when investigating the influence of author gender on judicial style and *ethos*, the clerks would be cognizant of the Justice's *ethos* as much as the Justice themselves. In fact, as an outside point of view, it is especially interesting to consider how a clerk serving a Justice thinks of and reinforces the Justice's *ethos*. As will be elaborated, there are myriad factors which influence *ethos*, many of which are actually externally determined by another person's perception of the rhetor.

ETHOS AND THE FIRST FEMALE JUSTICES

The judicial style of Justices Ginsburg and O'Connor likely reflects each woman's awareness of a need to build *ethos*, especially when considering their personal backgrounds and professional experiences leading to obtaining a position on the Supreme Court. Gutgold analyzes the women's rhetoric and writes that a great deal "of [O'Connor and Ginsburg's] rhetoric reflects

their trailblazing efforts” in the legal field (2). By considering the educational and professional backgrounds of each woman, their individual and shared rhetorical strategies can be better appreciated in the way that they reinforce each woman’s *ethos*. Justices O’Connor and Ginsburg faced similar prejudice as women pursuing legal careers in a time where few women were in the legal system, but they responded to these challenges distinctly. O’Connor grew up on a cattle ranch in the Arizona desert, but received a private school education, creating a “dichotomy of ranch toughness and private school privilege” in her character, according to Gutgold (18). After attending Stanford and graduating *magna cum laude* in 1950, O’Connor enrolled at Stanford Law School. At this point, she was already a major pioneer for women within the legal field, as she was one of only four women in a graduating class of 102 students and still graduated third in her class. Because of gender discrimination, even with her high academic accolades, no law firm within the state of California would hire her and the only position she was offered was as a legal secretary.

Ginsburg, in contrast, was raised in a low income, working class and largely immigrant neighborhood in Brooklyn, New York. After flourishing in high school, Ginsburg received a scholarship to attend Cornell University. After she graduated in 1954, she became a mother and enrolled at Harvard Law School. Like O’Connor, as one of only eight women in a class of close to 500 students, she faced discrimination from her peers and professional superiors. At this time, Harvard was male-dominated and an especially hostile environment for female students. At one point, the dean asked Ginsburg and her fellow female classmates why they had taken the places of qualified male applicants who, he assumed, “would actually use their legal education” (Gutgold 48). As women, not only were the first female law students’ capabilities put in question, but also their intentions in pursuing postgraduate degrees. Like O’Connor, even after

graduating with esteemed academic achievement, Ginsburg had extreme trouble finding a professional legal position because of gender discrimination; especially a position that reflected her abilities and accolades. Ultimately, a Harvard professor had to intervene to help her assume a position as a legal clerk.

While facing clear discrimination during their educational and professional development, O'Connor and Ginsburg developed their legal jurisprudence and rhetoric to accommodate for their externally imposed lack of *ethos*. As pioneers for women in the legal field, they continued to face discrimination even as they climbed to some of the highest positions of power within the country. After law school, each woman's legal career obviously diverged, as both had distinctive ideologies and pursued different professions in the intermittent period between law school and the Supreme Court. Still, they became the first women to ever co-preside on the U.S. Supreme Court, governing on the court together from 1993-2006. Though O'Connor consistently argued for the insignificance of gender in Supreme Court rulings, she did amend that, "it is a pleasure to have a second woman on the court," though she believes that Ginsburg, primarily, "is a very competent Justice" (McFeatters 97). She carefully emphasizes that Ginsburg is vital to the court not for her gender, but for her abilities and competencies, strengthening Ginsburg's *ethos* by turning the focus away from her gender.

However, traditional definitions of *ethos* do not effectively account for a dynamic and nuanced *ethos*, and these definitions especially fail to consider historically marginalized groups. Aristotelian *ethos*, which is reinforced by a rhetor's intelligence, goodwill, and good character, was developed when public speaking was constricted to a homogenous group of white men, meaning all rhetors entered the equation with a relatively similar baseline *ethos*. With the exclusion and erasure of women in traditional rhetoric as their exigence, Kathleen J. Ryan,

Nancy Myers, and Rebecca Jones' *Rethinking Ethos: A Feminist Ecological Approach to Rhetoric* redefines *ethos* to account for a largely diversified rhetorical field. They critique and subvert the Aristotelian *ethos*, which assumes that "the composing subject is a solitary individual crafting his or her character to firm up reputation and persuasive power" (Ryan et al. 5). This conventional conception of *ethos* ignores the consequence and lack of control a rhetor might have over biases and perceptions of others. Traditional depictions of *ethos* also do not account for the many constantly changing factors that influence a rhetor's *ethos*. These definitions are too static to allow for a multiplicity in *ethos*, and they do not foresee the rhetor who enters the rhetorical situation with an already questioned *ethos* due to marginalized status.

Ryan et al. propose a feminist ecological *ethē* to broaden and allow for a changing and multiple *ethos*. This feminist ecological *ethē* reframes the rhetor as "[drawing] from the multiple threads of her experience and interactions with others to create a relational and situated *ethos*, one responsive to and reflective of her evolving, multiple roles" (Ryan et al. 1-2). Though this *ethos* refers to any rhetor with a marginalized status and who experiences *ethos* primarily as an encumbrance, Ryan et al. theorize it specifically for women, because of the "shared yet diverse oppression" of being excluded from public speech and participation (5). The rhetor draws her *ethos* from an "ecology of forces" resulting from accommodating to normalized roles and conventional expectations as well as her actual values and capacities. Because *ethos* is always developed in relation to other circumstances in the rhetorical situation, like people, places, or things, it is constantly shifting and morphing. This inconstancy generates "a variety and plurality of *ethos*" which Ryan et al. exemplify in *ethē*: a plural of *ethos* (3). The rhetorical situation is never static, so neither is *ethos*. This female rhetor (re)examines her changing relations to

reinforce her *ethos* through a “complex dance of negotiating between normative expectations and her evolving beliefs” (Ryan et al. 3).

Ethos is then always contingent on the rhetorical situation, and particularly on the changing relations between the rhetor and their audience. Ryan et al. describe how androcentric Western rhetoric forces the female rhetor to always be constrained to the counter public and excluded from the dominant public. However, this point becomes complicated when considering the reality that some women have been incorporated into positions of especially high power and influence, like the Supreme Court. To reconcile this, even when successfully permeating and interacting with the dominant public, the female rhetor is still always cognizant of her traditionally subordinate status. Ryan et al. argue that “women rhetors take this understanding of “subordinate status,” relative to knowledge of the entire communicative landscape...to craft a viable ethos for participation in a dominant public” (4). To be incorporated into, participating, and succeeding with the dominant public, the woman rhetor must always accommodate for others’ perceptions of her. This *ethos* is then also embodied, as a “dwelling place” which stays consistent to the body of the individual even when that individual adapts to changing circumstances and perceptions (Ryan et al. 7). The embodiment of *ethos* suggests how it is also built on perceptions about bodies, and *types* of bodies, which cannot be discarded.

Still, the *ethos* of women who are able to attain positions of tremendous power and have such certainty and stability in these stations should be differentiated from those who operate with a constantly questioned and precarious *ethos*. I propose describing this more certain, still embodied *ethos* as a responsive *ethos* to more accurately reflect the ways that women on the Supreme Court have already successfully adapted to their rhetorical situation. Though “responsive” suggests accepting demands to change, it does not suggest much of a loss or erasure

of identity. Additionally, a responsive *ethos* suggests that though women like O'Connor and Ginsburg might deal with discrimination because of gender, they also operate with a great deal of privilege and influence. They must accommodate for their *ethos* because it is forever embodied in their identities as women, but this occurs in a different manner than if they were to enter the court as women of color, or without education at ivy league schools, for example. This responsive *ethos* is then privileged while simultaneously dynamic, multiple, responsive, and embodied.

The purpose for complicating traditional Aristotelian *ethos* to a responsive *ethos* in relation to the Supreme Court is to remain cognizant of the many changing factors that Ginsburg and O'Connor would both navigate, and that regardless of these factors their *ethos* remains embodied as women. The complexity and multiplicity of this also presents the difficulty of analyzing *ethos*, as with so many factors incorporated into a rhetorical situation, few can be grasped at one time, especially when so much occurs behind the closed doors of the Supreme Court. It can, however, help to ascertain how even when presiding within a dominant group, O'Connor and Ginsburg might still exhibit traits of an individual who accounts for a questioned *ethos*. If their *ethos* is embodied, then it can never be fully discarded. The reframing of *ethos* as a place of cohabitation, as this ecological approach takes, reminds us that the Supreme Courts members collaborate, disagree, and argue, but they always also influence each other. Their influence is not relegated to their own small community, though, and they act and react to a greater power: the American public.

CHAPTER ONE

WORD-LEVEL DIFFERENCES

INTRODUCTION: JUDICIAL IDENTITY AND WORD-LEVEL CHOICES

There are many intricacies to the composition of court opinions, but perhaps at the most basic level of a court opinion are the word-level choices made by a Justice. Throughout the drafting and writing of opinions, the document undergoes extreme scrutiny, meaning that most every part of its published version is chosen purposefully, including and especially its language. While a court opinion's ultimate purpose is to argue the Justices' position on the case, like any rhetorical occurrence it also relates to and supports the writer's *ethos*. By compiling the court cases throughout a Justices' career, the case-by-case specificities can be reduced and instead an overall picture of a Justices' rhetorical strategies can be identified; particularly how they developed *ethos* throughout their career. *Ethos*, however, is an extremely multiple and dynamic part of rhetoric, meaning that there is not a singular way that a Justice would attempt to bolster their *ethos*. Instead, *ethos* varies between Justices, and especially between those who are members of a historically marginalized demographic with others who are prototypical of traditional Western rhetoric's ideation of *ethos*. Members of the former group who are able to adapt and acclimate to perceptions and actualities of their *ethos* can be recognized as having a responsive *ethos*, whereas the latter group's *ethos* is assured.

A clear distinction between these two parties on the Supreme Court is gender, especially because women were only recently accepted into the court. The first women on the court, O'Connor and Ginsburg, would have entered the equation with a responsive *ethos*, as even though their identities as women and outsiders is always embodied, they have developed linguistic strategies to be able to respond to and interact with a court of individuals with an

assured *ethos*. *Ethos* is always vital to the way that members of the Supreme Court participate in any court proceeding, but particularly in oral arguments and the composition of court opinions. While researchers have studied the effects of a Justices' gender in relation to their interactions during oral arguments, there has yet to be a consideration of how gender and *ethos* might culminate in the language of court opinions. By doing so, this project finds that word-level choices within court opinions reflect Ginsburg and O'Connor's hyper-awareness of the need to cultivate *ethos* to be considered credible and capable members of the court.

INTRODUCTION: REVIEW OF LITERATURE

Though stylometric analyses of the relationship between gender and language are still a relatively new development, critical investigations into this topic became prevalent early in the 1970s. In her 1973 essay "Women's Speech: Separate But Unequal?" feminist rhetorical scholar Cheri Kramer hypothesizes that there are unique differences between men and women's speech and that these distinctions are socialized rather than innate. This discourse was popularized in 1975 as Robin Lakoff's book, *Language and Woman's Place*, considers both how women's language and language about women might reinforce their subjugation. Lakoff states that language used by women isn't "basically 'feminine,' rather, [it signals] 'uninvolved', or 'out of power'" (53). Lakoff believes this to be detrimental to a woman's opportunity to thrive in a professional environment, as the female subject theoretically develops an indirect style of speech that is unsuitable for competitive spaces. Like Kramer, Lakoff sees this language exemplified by hypercorrect and indirect language, but she also considers hedges, empty adjectives, apologetic speech, speaking less often, tag questions, and indirect requests to be indicative of what she calls the female register. Lakoff frames this as strategic, arguing that the female register "developed as a way of surviving and even flourishing without control over economic, physical, or social

reality” (Lakoff 205). She presumes that women’s speech responds to changing social conditions, but does not entirely theorize what a woman with power’s speech might look like. Kramer engages this idea, questioning whether “the woman who has obtained a position of some power alongside or over men [has] these techniques perfected? Or, alternatively, has she other characteristics of speaking which have aided her in obtaining a position of power?” (12). The insinuation here is that women strategically use language to obtain and maintain positions of power in a patriarchal society, and this language could either be emblematic of conventionally masculine language or a unique style developed in response to bias.

This concern with women’s rhetoric and how it can be ethically studied hearkens toward a prominent debate in feminist rhetoric between Barbara Biesecker and Karlyn Campbell over the framing of Campbell’s study, *Men Cannot Speak for Her: A Critical Study of Early Feminist Rhetoric*. Campbell promotes the recovery of women’s rhetoric and situates female rhetors by considering how “many strategically adopted what might be called a feminine style to cope with the conflicting demands” of conventional gender roles and persuasive speaking (12). Biesecker disagrees with Campbell’s methodology, on the grounds that the women are included because of rhetorical attributes that suggest they “think like men,” therefore fashioning female tokenism in the field of rhetoric. This leads to a consideration, once again, of how women’s speech patterns may develop strategically when the woman speaking holds an influential or authoritative position. Do women in power, like the female Supreme Court Justices, “think like men” and use what Kramer and Lakoff’s define as “masculine” language, which is characterized by direct and assertive language? Or alternatively, do they develop collectively or individually unique language patterns when navigating traditionally male-dominated fields and positions?

Interestingly, as early as 1977, scholars began attempting to measure whether markers of gender in language could be tracked empirically. In “The Female Register: An Empirical Study of Lakoff’s Hypotheses,” Faye Crosby and Linda Nyquist found that Lakoff’s six attributes of the female register (e.g. lexical choice, empty adjectives, rising intonation, tag questions, hedges, and hyper-correctness) were supported in two out of their three empirical studies on the accuracy of the female register. Crosby and Nyquist find that the proposed attributes of the female register decrease when the design of the study focuses more on ritualistic or formal communication forms. Though language tended to be used differently between male and female interlocutors, these differences lessened as formal constraints to the conversation increased.

As the correlation between gender and language is influenced by socialization patterns, they also have distinct implications in the political and judicial sphere. Legal scholars, like Janet Ainsworth, have incorporated Lakoff’s work into their research to learn how gender functions within the legal system and how language perpetrates gender inequity. Ainsworth modernizes Lakoff’s theories by positing that these speech patterns might be indicative of subjection rather than gender, but that “gender correlates with the use of different registers” that are also caused by other factors in hierarchy, such as race, sexuality, and class (273). Ainsworth sees the female register appearing in legal communication where there is an inequity in power, particularly through a linguistic prevalence of hedges, tag questions, modal verbs, lack of imperatives, indirect interrogatives, and rising intonation. She proposes that a rhetor may use this register *strategically*, in order to “convey uncertainty, to soften the presumptiveness of a direct statement, or to forestall opposition from the addressee” (Ainsworth 284). Significantly, both Lakoff and Ainsworth recognize the strategic and complex qualities of the female register.

Other scholars, like Kathryn Pearson and Logan Dancey, study how this correlation between gender and language might play out on the United States political stage, even today. Dancey and Pearson find that congresswomen tend to speak more often during one-minute speeches and floor debates than their male counterparts, and that congresswomen use this time to demonstrate that they have expertise on issues that are stereotypically considered weaknesses for congresswomen, such as foreign policy and defense. Likely, congresswomen are especially participatory because of their historical lack of representation in the House of Representatives. Dancey and Pearson hypothesize that congresswomen “may find floor speeches particularly important when seeking to demonstrate expertise on issues that are stereotypically considered congressmen’s strengths, such as foreign policy and defense” (911). If their theory is correct, in this instance there is substantive and strategic difference between men and women’s language in American politics, even today.

Pearson and Dancey’s scholarship is part of an increase of research on gender and the political field that finds ongoing difference between male and female language practices. Remarkably, as both articles were published in 2017, Adam Feldman and Rebecca Gill’s “Echoes From a Gendered Court: Examining the Justices’ Interactions During Supreme Court Oral Arguments” and Tonja Jacobi and Dylan Schweers’ “Justice, Interrupted: The Effect of Gender, Ideology, and Seniority at Supreme Court Oral Arguments” consider whether a computational study of Supreme Court oral arguments can identify a difference between the verbal communication of male and female Supreme Court Justices. Unlike Pearson and Dancey’s article, both research groups questioned whether there was existing structural difference in language, rather than if the content of a Justice’s argument is correlated with the speaker’s gender. Both articles find that Justices, whether intentionally or not, tend to assume traditional

gender roles where “the balance of power at oral argument shifts heavily to the male Justices’ favor” (Feldman and Gill 3). To detect this, each study focuses mostly on interruption, polite speech, and deference. Jacobi and Schweers identify that in the early stages of a female Justice’s career, she will tend to use what the authors describe as ‘polite speech’ more often (e.g., the statement “If I might ask”). This result reflects the intersectional nature of language, and that language use is always also influenced by seniority, in this case, as well as other factors of identity. Jacobi and Schweers also find that a linguistic differential along gender lines is most prominent in the exponentially high interruption rate of female Justices. Female Justices are interrupted more often by both male Justices and male attorneys, though female Justices tend to speak less often and with fewer words. Here, Jacobi and Schweers echo Kramer’s question from 40 years earlier, and ask whether “female Justices, despite having reached the pinnacle of a high-status profession, [are] still subject of being treated as conversational inferiors” (1392)?

WORD-LEVEL DIFFERENCES IN COURT OPINIONS

To identify the impact of gender with language and judicial style, this project looks at which linguistic features are most indicative of how female Justices write opinions, in comparison to the style of male Justices. With the formal nature of court opinions, the assembly of sentences requires each sentence to be constructed purposefully, deliberately, and carefully. The unique words included in opinions therefore reflect a Justices’ judicial style and the manner through which they believe they can most effectively argue their point. Most studies on language and gender in the Supreme Court focus on oral arguments where many factors are in flux and unpredictable, but the calculated and comparatively prolonged nature of writing opinions likely reflects a Justice’s intentional and persuasive strategies when they have increased control over the rhetorical situation. Justices write their opinions knowing that the document will be secured

to their name, and therefore their *ethos*. Even when multiple Justices collaboratively support an opinion, a single Justice is still formally recognized and considered its primary author. This inextricability between author and opinion means that the language of an opinion is one of the ways a Justice formally reinforces their *ethos*. As Ginsburg and O’Connor encounter negative bias against their *ethos* because of gender discrimination, they choose language that counters and accommodates to strengthen their *ethos*.

METHODOLOGY

Though the original corpus was composed of 6740 Supreme Court opinions, some opinions are likely too short to send strong enough linguistic signals for authorship attribution. To determine which opinions should be included in the processing, each document was assigned a unique identifier and its word count was logged in a metadata table. Only documents with lengths greater than or equal to 1,000 features were incorporated in this analysis, to ensure strong stylistic signal (Eder 2015).³ This reduced corpus consists of 4862 documents, as distributed by author in table 1.

Table 1: Number of Documents According to Justice

Justice	Documents
Breyer	392
Ginsburg	326
Kennedy	418
O’Connor	520
Rehnquist	781
Scalia	647
Souter	278
Stevens	1022
Thomas	478

³ Maciej Eder’s “Does Size Matter?” explores the necessary document length for reliable attribution. The results are inconclusive as the answer appears to vary case-by-case, but 1,000 words is conventionally agreed to be enough to convey a reliable stylistic signal.

Tokenization and Balancing. Each word or mark of punctuation was included as an individual token (i.e. unigram) and contractions and possessives were marked as single-word tokens and not divided. These tokens were then collected into a wide form matrix composed of their relative frequency, which was found by dividing the count of each token type per document by the total number of tokens in that document. The resulting matrix's dimension is 4862 x 85265, where each row references a document and each column a unique feature. The opinions were then divided by gender and the corpus was randomly sampled so that each gender class contained the same number of documents. This resulted in 1,122 opinions for each class.⁴

Feature Reduction and Cross Validation. After balancing, a three-step winnowing strategy was used in which (1) every feature's mean relative frequency across the whole corpus was calculated; (2) a chosen threshold of features was collected to include only features with the greatest mean frequency; and (3) any feature that did not appear in both male and female classes was excluded. By doing this, any features used by only one class would be removed and not bias the classifier. Through including only high and medium frequency features, it is more likely that stylistic features consistently used to structure sentences are used, rather than content-based features specific to a particular context. This threshold was set at 14 different maximum numbers of included features, to exclude all but the most common features. In the largest sampling, this threshold was set to 5000 surviving tokens, and the smallest threshold included only 100. The largest threshold sampling, for example, had only 4996 surviving tokens after the winnowing process.

⁴ Gender is divided as Justices O'Connor and Ginsburg for female (F) and Justices Breyer, Kennedy, Rehnquist, Scalia, Souter, Stevens, and Thomas as male (M). Because the female group was smaller and had 1,122 total documents, 1,122 male documents were randomly included.

After each round of selection and winnowing, a nearest shrunken centroid (NSC) classifier was trained and tested on the data. For each run, 75% of the documents from each class were randomly selected and familiarized by the machine and 25% were held out as test data and remained unseen by the NSC classifier. Then, the model was validated by classifying the previously unseen data. This machine learning technique reached an 81% accuracy at predicting author gender on the previously seen training data and a 76% accuracy on the test data, which was entirely new to the machine. This suggests that there is a strong association between gender and high-frequency single word features, when examining unigrams in opinions. Table 2 shows the exact accuracy per number of features used by the classification model.

Table 2: Classification Model Accuracy on Training and Test Data

Model	Threshold	Retained	Accuracy on Training Data	Accuracy on Test Data
1	5000	4996	0.866141732	0.774881517
2	4500	4497	0.856692913	0.774881517
3	4000	3999	0.852755906	0.774881517
4	3500	3499	0.849606299	0.765402844
5	3000	2999	0.846456693	0.758293839
6	2500	2499	0.837795276	0.760663507
7	2000	1999	0.833070866	0.779620853
8	1500	1499	0.820472441	0.774881517
9	1000	1000	0.813385827	0.772511848
10	500	500	0.788976378	0.753554502
11	400	400	0.78503937	0.751184834
12	300	300	0.773228346	0.760663507
13	200	200	0.744094488	0.734597156
14	100	100	0.74015748	0.736966825

Analysis of Features Indicative of Gender Classification. Next, all features that the machine found to be most indicative of gender were aggregated from the 14 sample sizes to display which words are most predictive of gender class. For each feature, the model provides a positive or

negative numerical value that serves as a proxy for indicating how useful the feature was in helping the model differentiate between the two classes. A positive score indicates that the feature is more typical of the given class and a negative score suggests that the feature is less typical. The absolute difference between the scores for each class shows how relevant the given feature was for determining the gender of the author. The mean of the 14 absolute differences for each feature shows overall how indicative a feature was of class (i.e. gender). Table 3 shows the top 50 most useful features for predicting author gender in the corpus of opinions.⁵

Table 3: Top 50 Features Indicative of Gender Classification

Feature	Mean Difference	Gender
l.ed	0.418942857	M
s.ct	0.412571429	M
it	0.340457143	M
see	0.224714286	F
that	0.223571429	M
s	0.220028571	F
observed	0.219088889	F
since	0.215083333	M
l	0.214228571	F
app	0.213076923	F
but	0.205742857	M
which	0.201714286	M
quite	0.196466667	M
there	0.193	M
ed	0.1905	F
ct	0.188828571	F
link	0.183314286	F
id	0.174757143	F
say	0.17362	M
notably	0.1705	F
urges	0.1649	F
arg	0.161685714	F

⁵ All tables included in this chapter are presented in their extended version in Appendix A.

seems	0.161555556	M
accordingly	0.153733333	F
upon	0.152153846	M
ibid	0.149876923	F
presumably	0.149685714	M
says	0.146955556	M
such	0.146657143	M
tr	0.1455	F
instructs	0.1448	F
is	0.144214286	M
this	0.141671429	M
latter	0.140355556	M
us	0.1362	M
maintains	0.1347	F
am	0.134325	M
at	0.130457143	F
be	0.130285714	M
wrong	0.129875	M
these	0.1289	M
much	0.12762	M
think	0.12646	M
would	0.125314286	M
respect	0.123466667	M
fact	0.1218	M
whereas	0.119733333	M
various	0.118022222	M
therefore	0.11675	F
of	0.1167	M

As shown in table 3, the words with the largest mean difference between the two classes are most indicative of gender. For example, the word “it” is more positively associated with male Justices, meaning that the male Justices tend to use “it” more frequently than female Justices when writing opinions. In contrast, the word “see” is used more frequently by the female Justices. The value in the “Mean Difference” column tells us that, on average, the F score is

0.2244 points higher than the M score for the word “see.” The top 25 features indicative of male classification are separately represented in table 4.

Table 4: Top 25 Features Indicative of Male Classification

Feature	Mean Difference	Gender
l.ed	0.418942857	M
s.ct	0.412571429	M
it	0.340457143	M
that	0.223571429	M
since	0.215083333	M
but	0.205742857	M
which	0.201714286	M
quite	0.196466667	M
there	0.193	M
say	0.17362	M
seems	0.161555556	M
upon	0.152153846	M
presumably	0.149685714	M
says	0.146955556	M
such	0.146657143	M
is	0.144214286	M
this	0.141671429	M
latter	0.140355556	M
us	0.1362	M
am	0.134325	M
be	0.130285714	M
wrong	0.129875	M
these	0.1289	M
much	0.12762	M
think	0.12646	M

In comparison to the female Justices’ language which they were tested against, the features overutilized by male Justices appear to display a tendency to describe a cognitive process between some form of evidence and a claim. For example, there is a prevalence of

subordinating conjunctions like "since," "but," "which," or "whereas" in the male Justices' high frequency tokens. These tokens form the syntactical connection which describes the relationship between two clauses. This cognitive process appears to be divided into two fluid categories: the first in which there is a direct line of reasoning, and a second in which interpretation becomes more prevalent. The former potentially exists in the high usage of more deductive terms like "whereas," and certain uses of "since" or "which." For example, in *Roper v. Simmons*, Justice Kennedy writes, "[d]uring closing arguments, both the prosecutor and defense counsel addressed Simmons' age, *which* the trial judge had instructed the jurors they could consider as a mitigating factor" (4, emphasis added). The latter is more recognizable, as features like "presumably," "seems," and "perhaps" are indicative of a more speculative and less definitive conclusion. Justice Rehnquist, in *Wallace v. Jaffree*, exemplifies this more interpretable approach, when he writes, "[i]t *seems* indisputable from these glimpses of Madison's thinking...that he saw the Amendment as designed to prohibit the establishment of a national religion, and *perhaps* to prevent discrimination among sects" (98, emphasis added). Justice Scalia particularly appears to utilize this approach, as he states in *District of Columbia v. Heller*, "[t]here *seems* to us no doubt, on the basis of both text and history, that the Second Amendment conferred an individual right to keep and bear arms" (22, emphasis added). This style of reasoning is noteworthy, as it demonstrates greater interpretation and even assumption on the part of the male Justices.

Another prominent quality of the male Justices' terms is an inclination toward binary or absolutist language. Top features like "either," "wrong," "obviously," "none," "totally," "forbids," "basic," "perfectly," "utterly," and "simply" reveal what looks to be a rhetorical bias toward making definitive statements. Though there are also words that foster nuance in the top male features, like "various" or "difference," they are outweighed by the more definitive terms.

In *McCreary County v. ACLU*, Justice Souter states that, “[t]he point is *simply* that the original text viewed in its entirety is an unmistakably religious statement dealing with religious obligations and with morality subject to religious sanction” (21, emphasis added). Justice Thomas, in *Good News Club v. Milford Central School*, writes, “[w]e find it remarkable that the Court of Appeals majority did not cite Lamb's Chapel, despite its *obvious* relevance to the case” (8, emphasis added). Justice Scalia dissents in *District of Columbia v. Heller*: “Justice Stevens is dead *wrong* to think that the right to petition is “primarily collective in nature”” (6, emphasis added). The male Justices’ higher usage of these words reveals a jurisprudence through which the law can be applied to a situation with resulting clarity and certainty. From a feminist lens, this also reinforces the possibility that the male Justices are working with an unchecked and assured *ethos*. They are confident enough in their own ideas, even when utilizing more interpretation, that they infer the opposing point of view to be lacking and even deficient.

There are also multiple words that are especially situated in legal language and reasoning, like “majority” and “constitution.” If the feature “constitution” is suggestive of male Justices’ opinions, this implies that the male Justices might be more likely to support their arguments with an emphasis on fundamentalist principles. Complexly, though, there are few liberal male Justices within this dataset, so the appearance of “constitution” could also reflect a more conservative ideology and jurisprudence. By definition, conservative Justices would rely more on the fundamental attributes of the constitution. This confusion between gender and ideology, or even seniority, is a potential limitation of this project, and could be influencing more of the word-level results than this.

Table 5 depicts the features that are most indicative of female classification, to compare with the male Justices’ top features.

Table 5: Top 25 Features Indicative of Female Classification

Feature	Mean Difference	Gender
see	0.224714286	F
s	0.220028571	F
observed	0.219088889	F
l	0.214228571	F
app	0.213076923	F
ed	0.1905	F
ct	0.188828571	F
link	0.183314286	F
id	0.174757143	F
notably	0.1705	F
urges	0.1649	F
arg	0.161685714	F
accordingly	0.153733333	F
ibid	0.149876923	F
tr	0.1455	F
instructs	0.1448	F
maintains	0.1347	F
at	0.130457143	F
therefore	0.11675	F
g	0.113654545	F
u	0.11325	F
quoting	0.112563636	F
oral	0.112066667	F
acknowledged	0.111428571	F
ca	0.109030769	F

In comparison, the female Justices' high frequency features have fewer clear connotations with a specific rhetorical style or strategy. Ginsburg and O'Connor's top features include more acronyms in their opinions, as "l," "app," "ed," "ct," "arg," "tr," "g," and "u," are

all common legal acronyms having to do with citation.⁶ The men's features also include acronyms, like "l.ed" or "s.ct," but one noteworthy appearance is that the women use "ibid" so frequently. The other terms imply the introduction of new sources, but such a frequent use of "ibid" suggests that the women spend more time analyzing a single source. This is indicative of a more detailed style and prolonged analysis of sources. While the predictive features for male Justices include many common or non-specific words, like "it," "but," "that," "there," "is," etc., the female Justices' emblematic features are more situated in presenting evidence from a legal purview. The female Justices' terms are frequently fixated on the identification and demonstration of specific evidence, whereas the male Justices' terms display a tendency to focus more on the connection between such evidence and a claim.

Ginsburg and O'Connor's rhetorical specificity is exemplified in the aforementioned preponderance of citation style acronyms as well as the top features "observed," "observing," "quotation," "quoting," "discrete," "oral," "brief," and "articulated." Not only are these features specific, but they also usually note ideas or arguments presented by another person or entity. For example, Justice Ginsburg writes in *United States v. Virginia*, "[a]s the District Court *observed*, the Committee's analysis "primarily focused on anticipated difficulties in attracting females to VMI," and the report, overall, supplied "very little indication of how the conclusion was reached"" (539, emphasis added). This reliance on evidence is likely an indication that the female Justices must make consistent moves to build *ethos*, even by relying on the *ethos* of others. This is not a move that is unique to the female Justices, however, as the male Justices also rely on citation a great deal, and therefore utilize this same sharing and building upon *ethos*.

⁶ "L" and "Ed" likely stand for the "Lawyer's" and "Edition" of "Lawyer's Edition," "u," "s," and "ct" for "United States" "Supreme" "Court," "arg" for "Oral Argument," "tr" for "transcript" or "trial."

What *is* distinctive is the presence of “*ibid*” and words like “observed” that exemplify a more sustained analysis or explanation of a text. This increase in time spent discussing the same text might suggest that the female Justices build *ethos* by establishing their understanding of a text, as well as demonstrating a thoughtful consideration of it. It also creates more transparency by revealing how they arrive at their final conclusions, rather than how the male Justices use more assumptive words, like “presumably,” without comprehensive explanation.

Other high frequency terms appear to demonstrate Ginsburg and O’Connor’s acknowledgement or awareness of custom. Features like “accordingly,” “generally,” “appropriately,” and “ordinarily” show this apparent perception of norms. Justice O’Connor, in *Hamdi v. Rumsfeld*, states, “[a]ccordingly, we reject any argument that Hamdi has made concessions that eliminate any right to further process” (20, emphasis added). When dissenting, in *Kelo v City of New London*, O’Connor writes, “[a]ccordingly, I respectfully dissent” (2, emphasis added).⁷ In *Bush v. Gore*, Justice Ginsburg subtly critiques other members of the court, writing “[w]ere the other members of this Court as mindful as they *generally* are of our system of dual sovereignty, they would affirm the judgment of the Florida Supreme Court” (142, emphasis added). This framing creates a more amicable disagreement that allows for the possibility of alternate conceivable interpretations, unlike how the male Justices often use words like “obvious” and “obviously.” Additionally, Ginsburg and O’Connor’s feature set shows an explicit recommendation or support of case outcome. The female Justices commonly use features like “instructs,” “maintains,” “urges,” “urged,” “urge,” and “ensure,” which all signal a pressing or confident recommendation toward case outcome and proceedings. For example, in *Hamdi v.*

⁷ That O’Connor uses “accordingly” here when using the common closing phrase in dissents, “I respectfully dissent,” appears to double her focus on conventions of court opinions.

Rumsfeld, O'Connor writes," [the] ordinary mechanism that we use for balancing such serious competing interests, and for determining the procedures that are necessary to *ensure* that a citizen is not "deprived of life, liberty, or property, without due process of law,"" (21-22, emphasis added). Again, these features can also portray referencing, like Justice Ginsburg uses in *US v. Virginia*: "In cases of this genre, our precedent *instructs* that "benign" justifications proffered in defense of categorical exclusions will not be accepted automatically" (535, emphasis added). This continued use of citation supports that the female Justices develop and maintain a responsive *ethos* by drawing from the *ethos* of others as well as demonstrating their comprehension of the court's proceedings and materials.

Discussion. These results depict variation between the male and female Justices' rhetorical strategies in their opinions; and even without further close reading there are potential hypotheses about why these differences occur. As Ainsworth states, the legal system habitually and systemically operates to oppress certain groups, including women, and this has undoubtedly contributed to the lack of women working in the legal system. Justices Ginsburg and O'Connor are pioneers in the legal profession, and their rhetorical strategies contribute to their success in the face of gender discrimination. A striking result is the comparative evidence-based specificity that the female Justices present in their opinions. The evidence-use in the female Justices' language reveals what might be a hyperawareness of an uncertain and ambiguous *ethos* and the demand for the female Justices to build credibility, much like the congresswomen of Pearson and Dancey's study. Likely, Justices O'Connor and Ginsburg need to capitalize on factual claims to frame their opinions and develop authority in an environment that historically favors men. This tactic, whether conscious or not, stands in juxtaposition to the rhetorical approach and word choice indicative of the male Justices, who are more confident relying on subjective

interpretation. It also suggests that they develop a responsive *ethos* by making intentional choices to counteract any questioning of their capabilities based on gender.

Though Ainsworth, Lakoff, and Kramer characterize subjugated groups as using indirect language, the female Justices seem to use more direct language, comparatively. The indirect language that Ainsworth, Lakoff, and Kramer describe is often incongruous with written language, such as purportedly female language patterns like rising intonation or indirect interrogatives. Modal verbs or hedges could potentially exist in written language as signifiers of indirect language, yet these results almost entirely disrupt a connection between that and the female Justices' vocabulary. The male features display more potential modal verbs and hedging while the female Justices' features are specific and precise. There are, however, many potential interpretations of 'direct' language, and the male and female Justices likely represent different versions. Though the female Justices directly present evidence, the male Justices use absolutist or fundamentalist language, which is direct in itself. The female Justices propose their case recommendations with urgency, and the male Justices frame arguments as obvious and incontestable. While this could also be indicative of the ideology or seniority of the male Justices included in this study, it shows some reliance on the law as a neutral force. Though the women do not necessarily rely on fundamentalist principles, their usage of terms that refer to some norm still acknowledges traditional customs of the Supreme Court. Hypothetically, this could be the written equivalent of the verbal polite speech that Jacobi and Schweers identify in oral arguments. Likely, Ginsburg and O'Connor's hyper-specific and evidence-based rhetoric results from more than socialization patterns, but also from rhetorical maneuvers consciously and subconsciously taken to cultivate a responsive *ethos*.

WORD-LEVEL DIFFERENCES IN DISSENTING OPINIONS

Of course, in the Supreme Court, there are three different forms of opinions created by the court, including the majority, concurring, and dissenting opinions. Previous results thus far have included all forms merged together, yet there clearly are differences between the effective rhetorical styles of each form; and likely especially between the majority and dissenting opinions. The majority of the court agrees and signs with the majority opinion, and the concurring opinion is written by Justices who agree with the court decision, but for different reasons. In contrast, the dissenting opinion is written by a Justice who disagrees with court outcome mostly or entirely. Unlike the majority opinion, which can become constitutional doctrine for lower federal courts, the dissenting opinion does not have an immediate legal outcome. This, however, does not make dissents and their written components inconsequential, as they often influence and are used to further future cases through their legal reasoning and wording.⁸ Additionally, the majority documents are written with the expectation that other Justices will need to agree with the framing and rationale behind the vote. Majority opinions undergo more rounds of drafting with influence from other Justices, whereas the dissents can be published with a single Justice's backing. Because they do not have to prioritize obtaining agreement from their peers, a Justice can utilize their personal judicial style more when dissenting. With the inherent disagreement of dissenting and awareness that the piece of writing could have impact in the future of constitutional law, dissenting opinions are certainly written with distinct, and conceivably exaggerated judicial style. This individualization also strengthens

⁸ One prominent example of the effects a dissenting opinion might have, even long after its time, is Justice John Marshall Harlan's dissent from the 1896 *Plessy v. Ferguson* case, in which he argued against the principle of separate vs. equal. Though he argued with the minority during *Plessy v. Ferguson*, Justice Harlan's dissent held continued import as time progressed. *Brown v. Board of Education*, the case that overturned *Plessy v. Ferguson* in 1954, was inspired by Harlan's dissent and used a similar rationale.

the divide between Justices along gender lines, likely because the Justices are less pressured to cater to the legal reasoning and composition styles of their peers.

Methodology. By using the same processing and NSC classification on the dissenting corpus, the high-level features for dissenting opinions can be juxtaposed with those of the larger corpus to determine how male and female Justices use language differently when dissenting.⁹ In comparison to the originally 6740 Supreme Court opinions, which consists of a combination of majority, concurring, and dissenting opinions, there are 2000 total dissenting opinions. Table 6 shows the number of documents attributed to each justice, after removing documents with less than 1000 features.

Table 6: Number of Dissenting Documents According to Justice

Justice	Documents
Breyer	135
Ginsburg	90
Kennedy	79
OConnor	106
Rehnquist	248
Scalia	205
Souter	83
Stevens	442
Thomas	155

After performing the NSC classification to identify which terms correlate with which gender class, the model reached a mean balanced accuracy of 90% on the training data and 73% on the testing data, in comparison to the 81% and 76% accuracy for training and test data, respectively, on the full set of documents. Table 7 shows the full accuracy on the training and test data per features included.

⁹ See pages 17-18 for the full description.

Table 7: Classification Model Accuracy on Dissenting Training and Test Data

Model ID	Threshold	Retained	Accuracy on Training Data	Accuracy on Test Data
1	5000	4971	0.986394558	0.744897959
2	4500	4486	0.979591837	0.755102041
3	4000	3996	0.976190476	0.734693878
4	3500	3497	0.969387755	0.734693878
5	3000	2998	0.965986395	0.744897959
6	2500	2498	0.955782313	0.693877551
7	2000	1998	0.942176871	0.734693878
8	1500	1499	0.921768707	0.734693878
9	1000	1000	0.87755102	0.724489796
10	500	500	0.846938776	0.744897959
11	400	400	0.823129252	0.755102041
12	300	300	0.795918367	0.755102041
13	200	200	0.789115646	0.704081633
14	100	100	0.765306122	0.683673469

Analysis of Dissenting Features Indicative of Gender Classification. This overall increase in accuracy for classifying author gender in dissenting opinions demonstrates that gender, as well as individual writing style, is more evident and reflective of word-level choices when the Justice is dissenting. The top female dissenting features are shown in table 8.

Table 8: Top 25 Dissenting Features Indicative of Female Classification

Feature	Mean Difference	Gender
see	0.336471429	F
l	0.303057143	F
at	0.294714286	F
ct	0.270471429	F
ed	0.269842857	F
s	0.266985714	F
observed	0.2638	F
hardly	0.2612	F
omitted	0.254763636	F
marks	0.250733333	F
d	0.248371429	F
notably	0.2438	F
quotation	0.231155556	F
contrast	0.21735	F
measure	0.212	F
rev	0.194088889	F
recognizing	0.194085714	F
gain	0.18684	F
cf	0.1834	F
aim	0.1833	F
link	0.179657143	F
u.s	0.177514286	F
acknowledges	0.176914286	F
arg	0.176371429	F
v	0.173257143	F

Table 8 illustrates notable differences in Ginsburg and O’Connor’s dissenting high frequency features, though the top terms remain relatively similar to the original results for the full corpus. The most prominent similarity between the two groups of features is the persistent presence of hyper-specific language: “see,” “observed,” “quotation,” “brief,” “ibid,” and legal acronyms appear within the main features of dissenting female Justices, as they did with the full

set of documents. This consistency demonstrates that the female Justices find evidence-based argumentation a reliable strategy when writing both with and without the court majority. Like the full group of files, terms signifying acknowledgement of custom or precedent are used frequently. Even while dissenting, Justices Ginsburg and O'Connor rely on the words "recognizing," "acknowledges," "properly," "generally," "appropriately," "historically," and "dictates."

While the two sets of features are not drastically different, at first there appears to be an emerging "forward-thinking" style in the dissents. Words like "aim," "gain," "incentive," "awards," "advanced," "ensure," etc. seem to suggest a potential positive outcome that is surprising to find more often in dissenting rather than majority opinions. The forward-thinking and positive nature of these features could be plausible because of the prospective influence of a dissenting opinion. On a closer look, however, these words are typically used to critique unethical influences or problematic rationale of the majority decision or the parties involved in the case. For example, in *Gonzales v. Raich*, O'Connor writes, "the Court announces a rule that gives Congress a perverse *incentive* to legislate broadly pursuant to the Commerce Clause" (1, emphasis added). Similarly, in *AT&T Corp. v. Hulteen*, Ginsburg writes, "Gilbert also *advanced* the strange notion that a benefits classification excluding some women ("pregnant women") is not sex based because other women are among the favored class ("nonpregnant persons")," clearly using "advanced" in critique, rather than an actual advancement (11, emphasis added). While there are plenty of erroneously positive terms, there are also many negative features that more obviously portray the argumentative nature of dissenting. The female Justices rely on words including "hardly," "contrast," "asserting," "unreasonable," "scarcely," "grave," "damages," "liability," "burdensome," and "barring" to disagree with the rationale and

conclusion of the majority opinion and to suggest the severity of the decision. In *Shelby County v. Holder*, Ginsburg claims that “the Court’s opinion can *hardly* be described as an exemplar of restrained and moderate decision making. Quite the opposite. Hubris is a fit word for today’s demolition of the VRA” (30, emphasis added). Similarly, in *Atwater v. City of Lago Vista*, O’Connor comments on the severe repercussions of the Court’s decisions, and that “[s]uch unbounded discretion carries with it *grave* potential for abuse” (13, emphasis added).

In comparison, the top dissenting features that indicate male classification are included in table 9.

Table 9: Top 25 Dissenting Features Indicative of Male Classification

Feature	Mean Difference	Gender
it	0.397114286	M
l.ed	0.380171429	M
s.ct	0.372114286	M
quite	0.288488889	M
that	0.269985714	M
is	0.266442857	M
say	0.2514	M
much	0.245763636	M
these	0.227014286	M
since	0.224766667	M
seems	0.2236	M
either	0.21715	M
of	0.196742857	M
answer	0.184333333	M
what	0.183507692	M
do	0.181492308	M
says	0.177688889	M
by	0.175828571	M
apparently	0.174533333	M
entirely	0.173488889	M
but	0.171385714	M
upon	0.168753846	M
contain	0.167542857	M
wrote	0.167171429	M
two	0.167061538	M

Interestingly, table 9 shows that the words used by the male Justices change very little when writing in dissent. One group of features missing in the dissenting vocabulary that previously saturated the full set of documents are words, like “presumably” or “perhaps,” that imply authorial interpretation and influence. These features appear less in the dissents, suggesting that the authors rely less on their personal interpretations and their *ethos* might be less

assured. Unlike the female Justices, the full corpus of opinions written by the male Justices seem to already indicate a dissenting style. Words like “obviously,” “totally,” “perfectly,” and “entirely” show that the male Justices continue to make definitive claims when writing in dissent. Again contrasting with the female Justices, there are few male dissenting features suggestive of negativity. Other than “imprisonment” or “dispose,” most of the male Justices’ features are relatively neutral in sentiment. This is not just a lack of negative language, but rather a lack of sentiment-filled language in general. “Perfectly” and “correct” are the only clearly positive terms of the entire top 100 male features. While the female Justices rely on more poignant language to dissent, the male Justices use neutral language that remains consistent with the full set of their opinions.

Like this larger set of opinions, some of the male Justices’ binary language remains within this set (e.g. “either” or “separate), yet there are also words which allow for more nuance, like “various,” or “comparable.” Kennedy writes, for example, “[c]ongress had itself provided for fee awards under *various* statutes when it thought fee shifting necessary to encourage certain types of claims” in *Business Guides, Inc. v. Chromatic Communications Enterprises, Inc.* (7, emphasis added). The attributes of the male Justices’ dissenting language imply that their stylistic choices in the full corpus either exaggerates or declines when they dissent. There are few strategies that the male Justices only use in dissent. They instead rely more consistently on overarching strategies that occur in all genres of opinions, like evaluating evidence or making definitive claims. In contrast, Ginsburg and O’Connor’s feature set might undergo this exaggeration, but they also begin to incorporate new strategies, like using evocative language. This is clear in the emergence of features with positive or negative connotations, especially in comparison to the male documents. Potentially, the women feel less of a need to build an *ethos*

when writing alone, and instead write in a manner that they see as best for dissent. While the assumption would be that both men and women assume a more negative air in the writing of dissenting opinions, the women's terms depict the gravity of effects from case outcome more than the male Justices' features through ubiquitous negative language and their critiques of parties in the wrong.

Discussion. These word-level differences between the opinions of the male and female Justices suggest that the female Justices compose opinions with a judicial style that maintains and develops their responsive *ethos*, rather than entering the situation with a presumed or assured *ethos* just from their title as a Supreme Court Justice. The male Justices appear to be secure enough in their *ethos* that they also comfortably and overtly rely on their own interpretations of circumstances. The male Justices' terms, regardless of whether they are dissenting or not, suggest that they are already confident enough in their *ethos* to question the credibility and capability of others. Relatedly, they use terms that suggest they know fundamental truths in cases. The male Justices even use terms, like "obvious," to reduce the ideas of others by making the individual seem senseless and incapable of grasping the realities of a case.

In contrast, the first female Justices, Ginsburg and O'Connor, began their legal careers during a time where any woman's professional presence was in question. As demonstrated by the male Justices' terms, they also operate within a court that is saturated by rhetors who feel comfortable questioning another person's *ethos*. Ginsburg and O'Connor seem to claim their *ethos* by relying on an awareness of the norms of the courtroom and that, though their presence as women on the court may not be conventional, their jurisprudence is either conventional or is aware and intentional when not. Unlike the male Justices, the female Justices also begin to use more suggestive and sentiment-filled language when writing in dissent, as might be expected

from all Justices. The female Justices' stylistic shift between writing for the majority and for dissent and the comparable consistency between the male Justices' style suggests that the female Justices might account more for other Justices when they compose majority opinions. Ginsburg and O'Connor appear to be more concerned about their *ethos* when trying to form agreement with another Justice, to the degree where they adjust their rhetorical strategies even if that means straying from their individually preferred style.

Finally, the female Justices' expression of more emotional appeals and the suggestion of actualized severity in case results deserves further study, as it seemed unpredictable and odd that the male Justices' dissents are almost devoid of more emotionally-based features in comparison to the female Justices. Counterintuitively, the female Justices rely on emotional appeals most when dissenting, though a jurisprudence that incorporates emotion is frequently within severe critique. The male Justices, on the other hand, only use apparently neutral language in their court opinions, *especially* when dissenting. Chapter Two further analyzes sentiment in court opinions to consider if and when in a Justices' career they might use sentiment strategically, as well as if this relates to gender and *ethos*.

CHAPTER TWO

SENTIMENT ANALYSIS OF JUDICIAL OPINIONS

INTRODUCTION: JUDICIAL IDENTITY AND SENTIMENT

The potential for emotions to influence judging is obviously controversial in myriad ways, and because of this it has been a topic of scholarly and popular attention. However, a consideration of how language indicative of *sentiment* might be used in court opinions has yet to be made. Sentiment analysis focuses on the positive and negative attributes of language, rather than emotional analysis, which might consider the wider range of the human emotional experience. Sentiment is likely influenced *by* emotion, but it represents the idea that emotion leads to or is the descriptive formulation of that emotion. Like the law as a whole, judicial decisions are expected to be made in an emotionally detached and therefore unbiased manner, which leads to the incorrect presumption that without emotional influences there would be scarce sentiment and predominantly neutral language in opinions. Judges try to maintain a rational, fact-based jurisprudence to uphold neutrality in their court, yet this actually entails respectfully and accurately presenting ranges of positive and negative subject matter. By definition, court opinions require a Justice to take a stance, an act that necessitates agreement or disagreement, which presumptively demands positive and negative language, respectively. The language of court opinions supports this, as though they are written from a distanced standpoint from the subject and attempt at objectivity, they tend to display a decent amount of variance in positive and negative sentiment. Because sentiment varies from Justice to Justice, it reflects another facet of judicial identity and rhetorical choice.

A formal piece of writing that is saturated with sentiment suggests that the subject matter of a case is already negative (or positive) enough that the requisite language for making an

argument about it must naturally also be so. Even if a case is essentially negative or positive, the Justice decides which circumstances of the case to focus on, and how extensively. They might emphasize the severity of the harm committed, the potential benefits, or the injuries caused to a particular party, for example. The sentiment of an opinion also suggests which genre a Justice is writing in (i.e. majority, dissenting, and concurring) and how they approach composing in that genre. The use of evocative language in opinions depicts a Justice's perception of their *ethos* and the reflexive and responsive way their *ethos* develops throughout their career. If positive or negative language can be emblematic of agreement or disagreement, or even a form of "respectfully" disagreeing, then the sentiment of a court opinion might also suggest whether or not a Justice finds their *ethos* secure enough to diverge entirely from the majority. Presumably, for example, if negative sentiment is indicative of disagreement, a Justice with a responsive *ethos* would avoid using language that drives a stake between them and the rest of the court.

Through large-scale sentiment analysis, this study finds that the trajectory of positive and negative sentiment is distinct to every Justice, yet all display a similar decline in positivity throughout their careers. Additionally, the Justices who enter the court with a responsive *ethos*, including Ginsburg, O'Connor, and Thomas, exhibit a pattern of sentiment that separates them from their peers. Because sentiment analysis of court opinions shows a differing trajectory of sentiment for the three Justices with an embodied and responsive *ethos*, the way a Justice uses sentiment reflects whether or not a Justice begins with an assured *ethos*, as well as the shifting nature of *ethos* as time progresses. The sentiment-use of Justices with an assured *ethos* differentiates from the sentiment of a Justice with a responsive *ethos*, because the Justice with a responsive *ethos* must bolster their *ethos* and effectively argue a case, simultaneously. Finally, Justice O'Connor becomes an outlier in the dataset when she dissents, as her sentiment varies

almost constantly from positive to negative. This result reveals one of the ways O'Connor develops her *ethos* and credibility on the court, and is supported by previous scholarship (as well as criticism) regarding her judicial style as unofficial court moderator and the swing vote.

As aforementioned, though court proceedings require neutrality and emotional distancing, this does not mean they operate without sentiment. As Terry A. Maroney describes in her article, "Law and Emotion: A Proposed Taxonomy of an Emerging Field," "[c]riminal law reflects theories of fear, grief, and remorse; family law seeks (ideally) to facilitate love and attachment; tort law measures emotional suffering; litigants seek emotional satisfaction by invoking legal mechanisms; legal decision makers may have strong feelings about parties in their cases" (120). Emotions underlie cases and the development of legal reasoning, and therefore decisions based on comprehensive evidence entail depictions of sentiment. With such saturation of emotion within cases, the description of them would naturally be suggestive of positive or negative sentiment. Even if a judge holds a neutral stance when presiding over a case, any accurate description or analysis of the case requires language that reflects its severity and subject matter.

Moreover, there are potential benefits to acknowledging the relationship between sentiment and reason within the courtroom. Martha C. Nussbaum considers how emotions are inextricably connected to reason and argues that, "emotions are not just mindless; they embody thoughts. Therefore, we cannot dismiss them from judicial reasoning and writing just by opposing them in an unreflective way to reasoning and thought" (25). Likely, for those emotions to exist in the first place, there must have been some gathering and processing of factual evidence. Nussbaum compares the potential for a judge to objectively and neutrally use empathy

and sympathy to the act of reading literature. She bases this on a statement made by Justice Breyer, which poses how a literary mindset is useful for respectable judging:

I was reading something by Chesterton, and he was talking about one of the Brontes...He said...you go and you look out at the City, he said - I think he was looking at London - and he said, you know, you see all those houses now, even at the end of the 19th century, and they look as if they are the same. And you think all those people are out there, going to work, and they are all the same. But, he says, what Bronte tells you is they are not the same. Each one of those families is different, and they each have a story to tell. Each of those stories involves something about human passion. Each of those stories involves a man, a woman, children, families, work, lives. And you get that sense out of the book. So sometimes, I have found literature very helpful as a way out of the tower. (U.S. Committee 1994, p 232).

Here, Breyer taps into the value of recognizing the individual humanity and experiences of each person, an idea which is emblematic of reading about and identifying with characters. Though Breyer is not *experiencing* the emotions of the characters in literature, he views attempting to understand unique experience as valuable to judging. Nussbaum argues that the language of a reader of literature could support judicial decisions by improving their ability to recognize individual humanity, the complexity of each person's experiences, and imagine prospective difference. The judge-as-reader would be an impartial spectator who is able to creatively surmise and formulate the experience of being the person before them (i.e. to empathize). They would incorporate a "publicly rational" view of the world and not falter to emotions that "relate to [their] own personal safety and happiness" (Nussbaum 26). A judge could then empathize with

the individual, while still retaining some level of detachment, rationality, and lack of bias. This is not an emotional response, so to say, but rather a sentiment-based evocation of another’s emotions to loyally represent their case.

METHODOLOGY

Sentiment analysis allows for the collection and comparison of ranges of positive and negative language in Supreme Court opinions throughout a Justice’s entire career. The method scrutinizes emotional language within a document, typically considering how individual words might exist on a continuum between negative and positive sentiment. Matthew Jockers’ *Syuzhet* sentiment analysis program uses a lexicon-based approach to determine sentiment within a text. This method relies on a dictionary of words and their correlating numerical sentiment values, on a scale from negative 1.00 to positive 1.00. The numeric values from the *Syuzhet* dictionary were identified from the hand-coding of sentiment from a collection of 165,000 sentences taken from a small corpus of contemporary novels (Jockers 2015). Once a numeric value is assigned to each word in a sentence, the method takes the sum of all values within the sentence. For example, Breyer’s aforementioned quote about judging and literature would be coded as follows, in table 10.

Table 10: Example of Sentiment Analysis on Text Selection

Sentence	Valence
But, he says, what Bronte tells you is they are not the same.	[0.00]
Each one of those families is different, and they each have a story to tell.	[0.00]
Each of those stories involves something about human passion.	[0.50]
Each of those stories involves a man, a woman, children, families, work, lives.	[0.25]
And you get that sense out of the book.	[0.00]
So sometimes, I have found literature very helpful as a way out of the tower.	[1.35]

The first two sentences have no words that clearly suggest positive or negative sentiment, on their own. Importantly, for understanding how this will work with court opinions, sentiment analysis does not attend to negation or contextual keys, so “not the same” is not a negative statement. The third sentence becomes slightly more positive, likely because of the word, “passion.” Finally, the last sentence is much higher in comparison to the rest, particularly because of the very evidently positive word, “helpful.” If studying this selection as an entire text, its sentiment valence would be at a mean of 0.350. According to sentiment analysis, and ostensibly with the agreement of a human reader, Breyer’s statement is a slightly more positive selection.¹⁰ This selection is positive, but not in a way that the sentiment is polarizing or extreme. Like the method depicted in table 10, sentiment is collected at a sentence- rather than document-level for this particular project. After each sentence receives a positive or negative number according to its sentiment, the document itself is given an overall degree of sentiment through the averaging of all sentence-level sentiment valences. Then, to find a Justice’s average sentiment for a single year, the sentiment of all documents published in the same year is averaged. By doing so, the trajectory of sentiment per year shows the overall changes in sentiment throughout the course of a Justice’s tenure on the court. This analysis is initially performed on all types of court opinions within the full corpus of Supreme Court documents, and then in consistency with the structure of Chapter One, sentiment analysis is performed on the dissenting opinions, as well as the concurring opinions.

¹⁰ Jockers 2015 and 2016 test the agreement between human and machine when reading and determining sentiment within a sentence, finding that the machine and human tend to read sentiment in similar ways, overall.

SENTIMENT ANALYSIS OF COURT OPINIONS

Figure 1 displays the smoothed sentiment trajectory of all Supreme Court Justices' opinions, and figure 2 represents each Justices' trajectory, individually.¹¹ The graph of all nine Justices and their according sentiment values demonstrates how individualized sentiment is throughout a Justices' entire career. Interestingly, many of the Justices are most positive when they join the Supreme Court and, in general, all opinions are written with more positive than negative language.¹² There is quite a bit of variance here, as most Justices start or end their careers with vastly different sentiment or exhibit spikes in positive or negative language during a seemingly random year. Overall, the court opinions of all Justices, other than Kennedy, Stevens, and Thomas, become more negative as time proceeds. Between the years 2000 to 2010, specifically, almost all Justices become much more negative. This decline occurs after a short positive overall increase, between 1995 and 2000, possibly reflecting a pendulum swing in the mood of the court before and after 2000.

¹¹ The unsmoothed version of this graph can be found in the Appendix.

¹² The language is more positive than language because the average yearly sentiment for any Justice rarely falls < 0 .

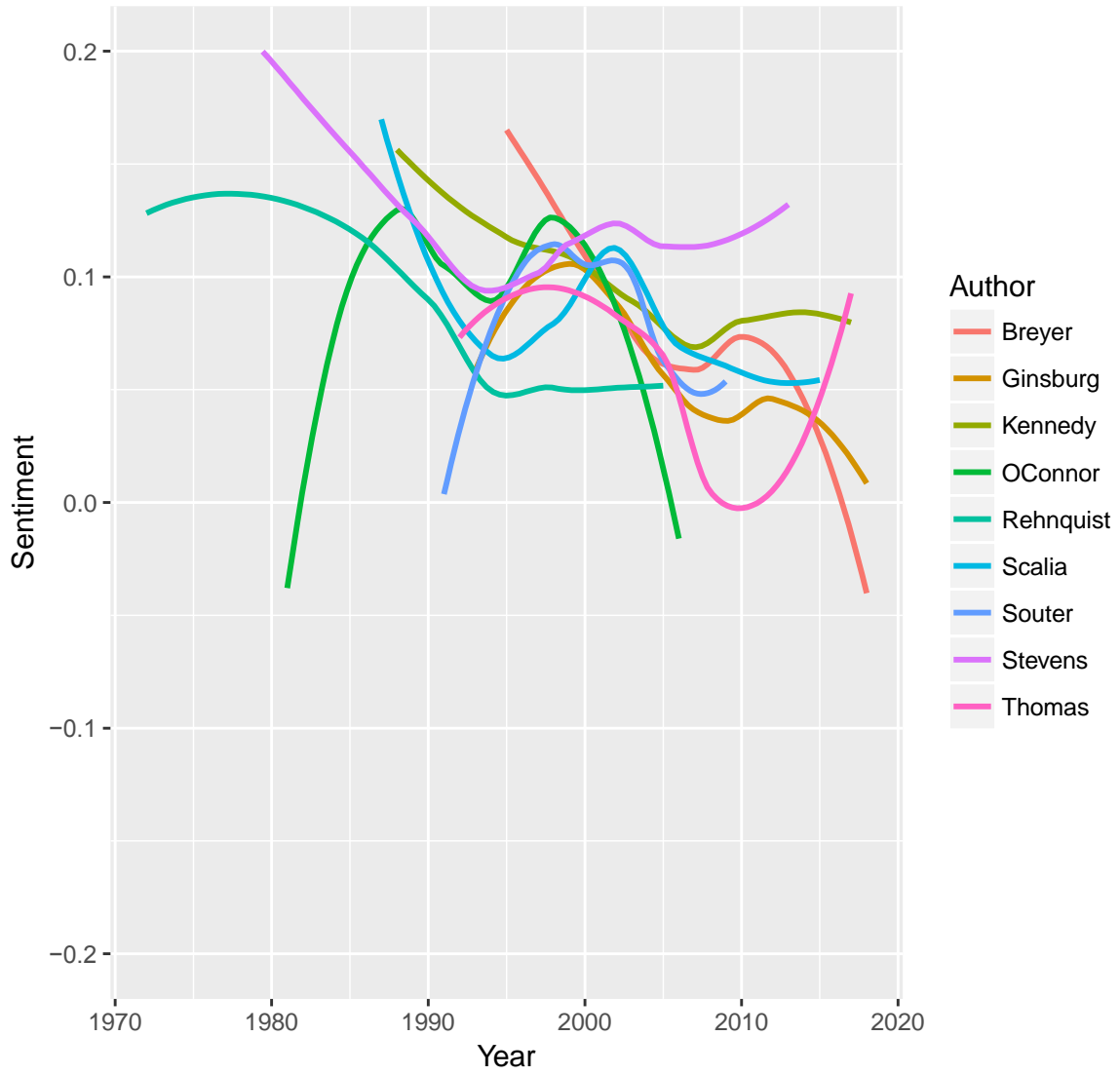
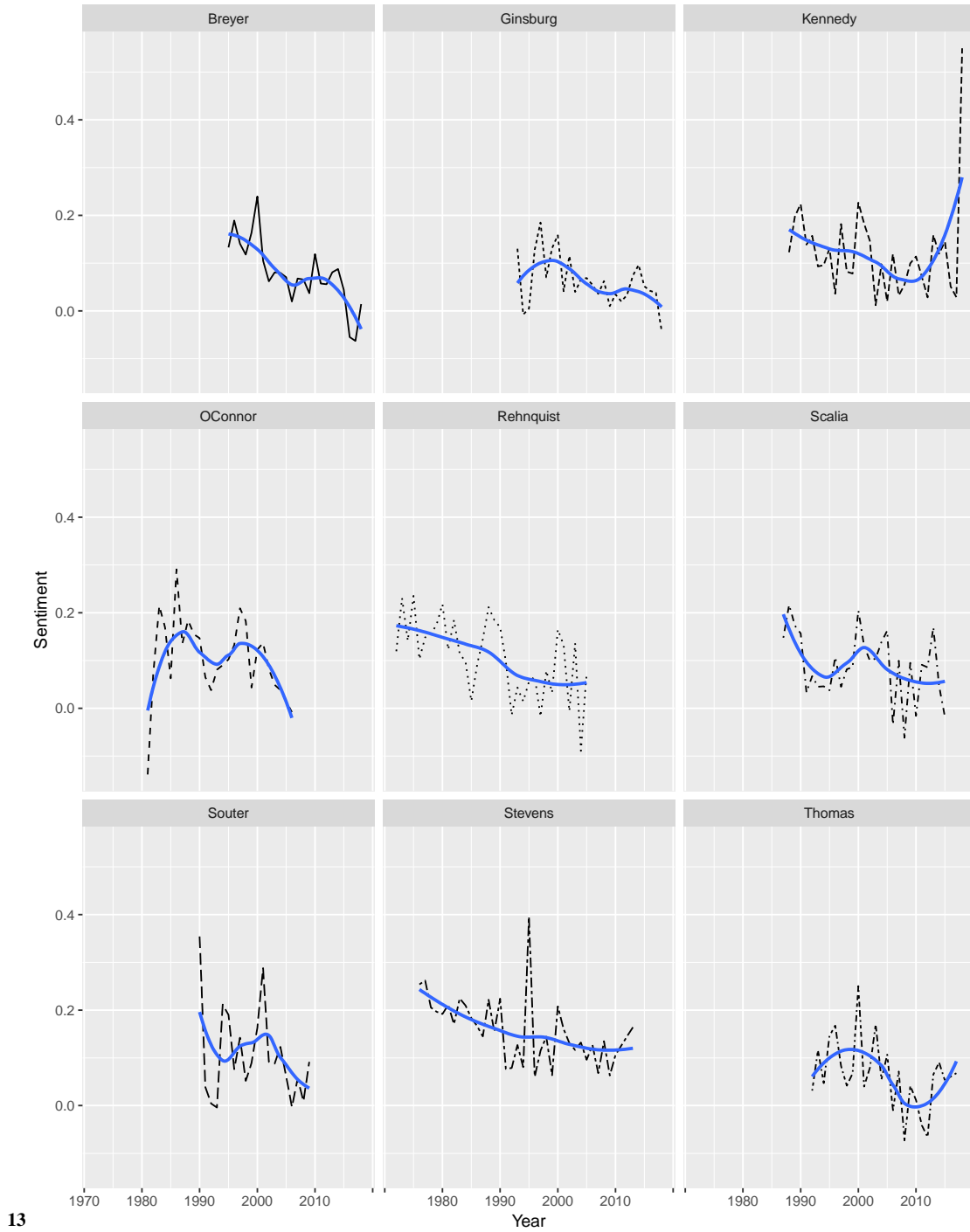


Figure 1: Smoothed Sentiment Trajectory for all S.C. Justices



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Figure 2: Individual Smoothed and Unsmoothed Sentiment and Standard Deviation

¹³ Full versions of all individual graphs per Justice can be found in the Appendix. The blue line displays smooth sentiment, the grey area the amount of variation per year, and the dotted line is the non-smoothed sentiment.

Individually divided by Justice, figure 2 demonstrates a more comprehensive picture of each Justice's distinct trajectory of sentiment. Justice Breyer, though initially one of the most positive of all opinion writers, becomes consistently more negative, other than a small upward curve in sentiment from 2005 to 2010. Justice Ginsburg is one of the most consistent and neutral of all of the Justices, though she too slowly becomes more negative. Justice Kennedy's sentiment is unique in the group, as his final years on the court are his most positive opinions, as well as the most positive point for any court opinions. From 2010 on, Kennedy's opinions are exponentially more positive, though he began his term on the court with increasing negativity until 2010. Potentially, during the last few years before his retirement, Kennedy became less and less focused on arguing against the court, and used more complacent language. He also may have been drawn toward and given cases with more positive subjects, or at least less divisive cases, since each year he neared closer to his decision to retire. However, though Kennedy's opinions might become especially positive right before he retires, from 2014-2018 he begins publishing very few cases per year. Kennedy consecutively wrote 10, 11, 12, and 10 court opinions from 2014-2017, and in his final year on the court he only published a single opinion. This lone opinion is rated at 0.550 for sentiment, making it much more positive and therefore outweighing the rest of the opinions in positivity. Figure 3 displays the number of opinions each Justice published per year, to demonstrate this.

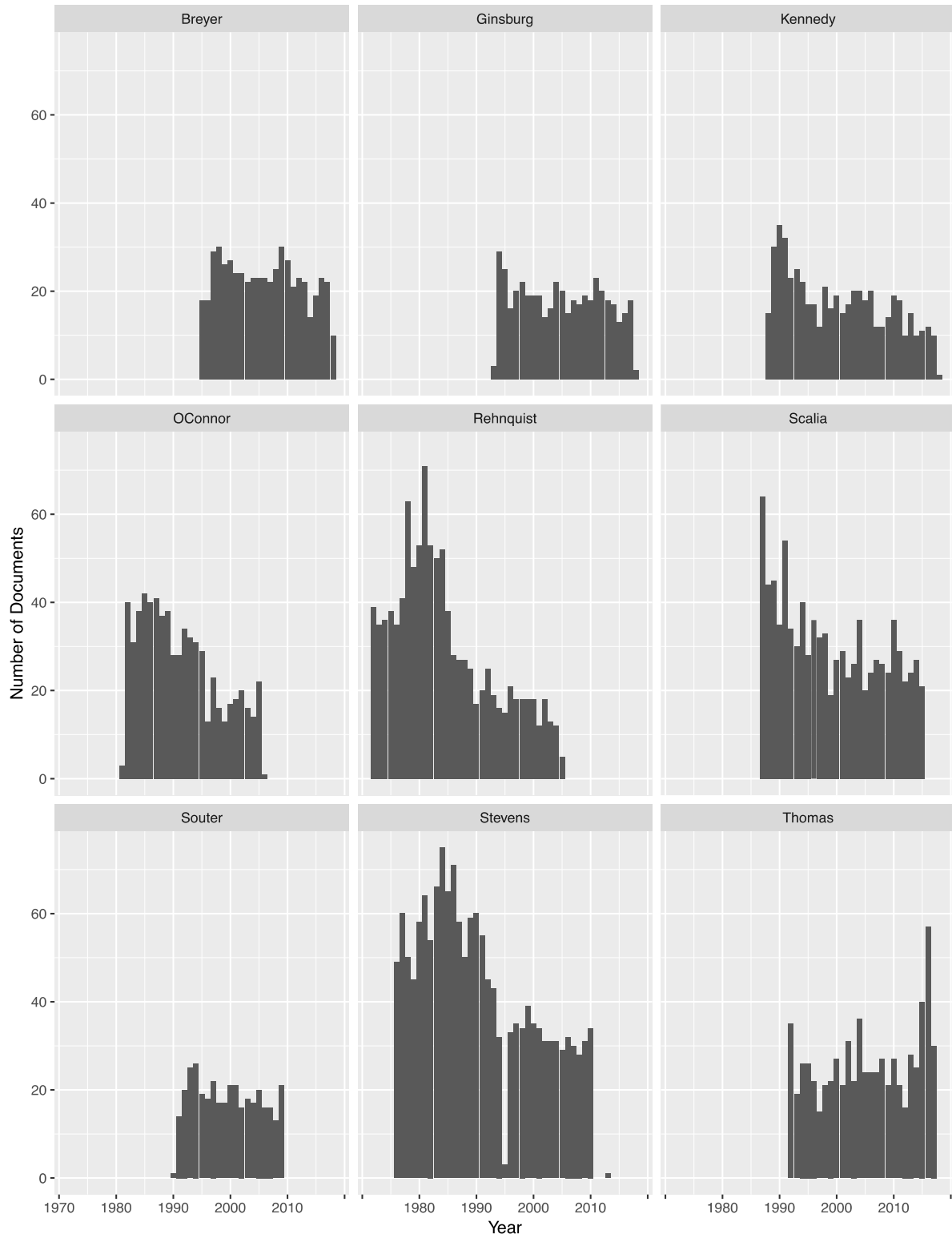


Figure 3: Number of Justices' Opinions Per Year

Surprisingly, as depicted in figures 1 and 2, Justice O'Connor begins her tenure on the court as one of the most negative writers, yet she becomes more positive each year, until suddenly taking a negative turn around 1998, until the end of her career. Justice Rehnquist, as the first Justice within the corpus to be appointed to the court, slowly and consistently becomes more negative, as well. However, there appears to be a decent amount of variance within Rehnquist's sentiment data, and he hits one of the most negative points of any Justice around 2004, just a year before his death. Early-on, Justice Scalia writes his most positive opinions but steadily becomes more negative throughout the rest of his career. Justice Souter is another of the more positive Justices, but this positivity decreases as his seniority increases, like most members of the court. Justice Stevens, as the most positive of all the judges, also declines in positivity, but his most negative point of sentiment is scarcely lower than the highest point of sentiment of Justice Thomas. Thomas, though he writes with quite a bit of variation, becomes increasingly positive early in his career before taking a sudden downward slope from 2000 to 2010 and then a positive incline until present-day.

The one consistent trend between all of the Justices is that they become more negative as their seniority increases. Though some Justices, like Breyer, become more negative at a quicker pace, this is the overall trend for every Justice. There are many possible reasons as to why this occur, but likely it suggests the combination of a mix of influence from (1) subject matter, (2) the position the Justice prefers to take when writing opinions, and (3) their overall optimism regarding the proceedings of the court. For the first point, Justices might be delegated to write the less controversial or divisive cases due to their lack of experience, but then as they continue on the court they are assigned more difficult or more negative cases. The individual Justice might

also influence this, as Justices choose whether or not to write a dissenting or concurring opinion in addition to the majority decision. They might avoid taking on the more difficult subject matter, at first. In regard to the second potential influence of this decline, a Justice might also have more of an interest to appease the rest of the court when writing opinions at first, and take a more disagreeable approach as they become one of the more senior members of the court. Theoretically, the longer they preside on the court, the more assured they become in their *ethos*, and the less concerned with forming alliances or separating themselves politically. Finally, and relatedly, the Justices might become less optimistic and more aware of the difficulty of presiding on the court as time progresses; becoming jaded, so to say. Likely, a multitude of these reasons, as well as other unmentioned possibilities, create this definite negative increase.

Figure 4 displays the trajectory of the male Justices' sentiment in comparison to that of the female Justices. By comparing the Justices by gender, another noteworthy trend emerges. As depicted in figure 4, both female Justices increase in positivity immediately after their first opinions, though at different rates, reaching a peak in positive language within their first five years on the court. After this point, Ginsburg and O'Connor both steadily decline in positivity, until reaching their lowest level of sentiment by the final or most recent year in their career.

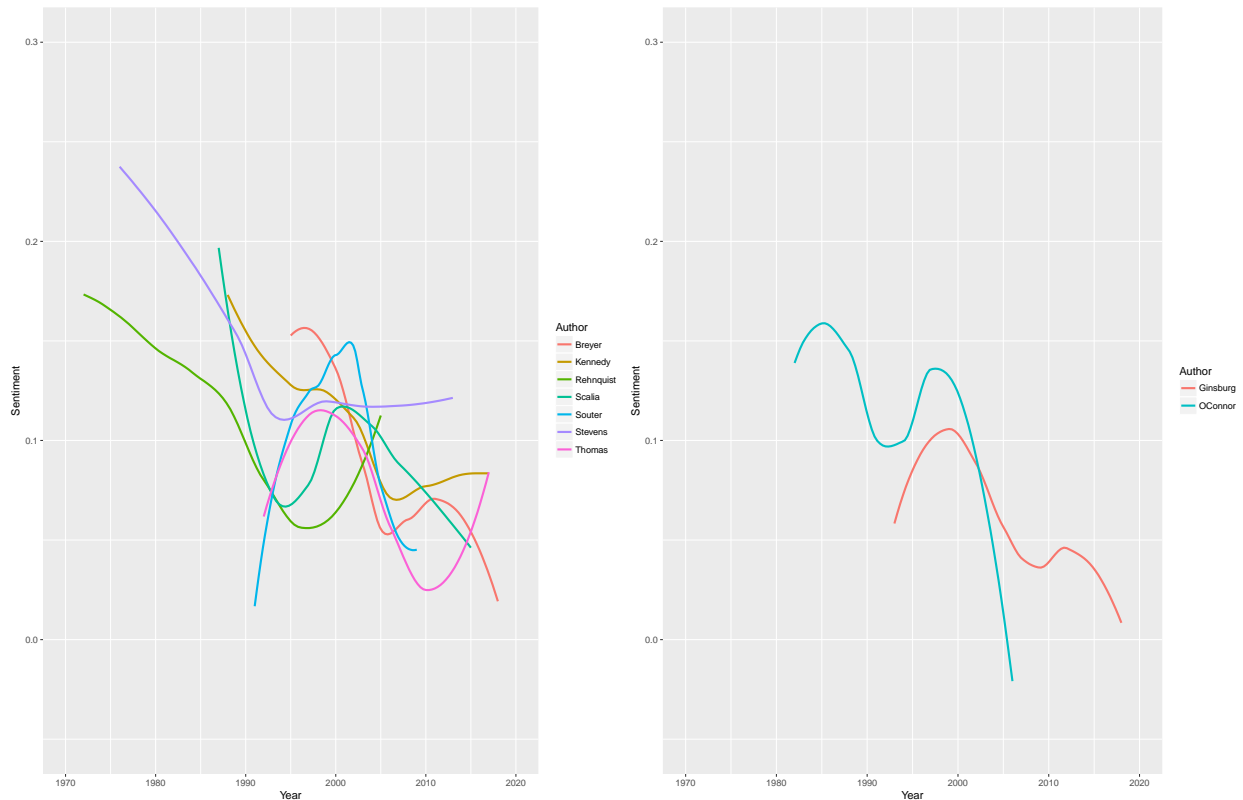


Figure 4: Comparison of Sentiment Between Male and Female Justices

Nearly all of the male Justices, on the other hand, begin their careers already writing more negatively each year. Thomas is the only male Justice who begins his career with a similar consistent upward slope to that of the women.¹⁴ O'Connor became more positive during the early 80s when she joined the court, while Thomas and Ginsburg show a similar pattern of increase in positive sentiment during the early 90s. O'Connor also becomes more positive in her court opinions' language during Ginsburg and Thomas' increase in positive sentiment. There are potential factors that could have influenced the three Justices to have such similar sentiment patterns, which are distinct from the rest of the Justices. Many of these factors could have been

¹⁴ In Figure 4, Justice Souter appears to replicate this upward slope, yet by looking at his individual graph in figure 3 there is enough variance between his documents at the beginning of his career that he does not necessarily fall into this same pattern.

from external influences, like the cases presented to them or shifting ideological leanings within the court.¹⁵ Because all three Justices presided on the court with vastly different ideologies, however, they likely were not responding to similar political occurrences.

Regardless, the difference between Ginsburg, O’Connor, and Thomas’ sentiment pattern with that of the rest of the court is reflective of deliberate stylistic and judicial choices. There are two potential hypotheses about why this early upward trend occurs: (1) the Justice began by writing opinions according to their natural inclination for sentiment but were quickly influenced to become more positive, or (2) the Justice immediately began by writing opinions that were uncharacteristically negative in relation to the rest of their career. To consider this question, table 11 shows the mean sentiment over a Justice’s entire career, as well as the standard deviation of sentiment throughout it.

Table 11: Mean and Standard Deviation of Sentiment for Individual Justices

Author	Mean	Standard Deviation
Breyer	0.082807459	0.246191034
Ginsburg	0.061919343	0.234182735
Kennedy	0.117811506	0.255666002
O’Connor	0.122903349	0.322982161
Rehnquist	0.124780755	0.30263192
Scalia	0.091961167	0.317063199
Souter	0.099434665	0.296029988
Stevens	0.161743504	0.300807595
Thomas	0.064647341	0.291138856

¹⁵ President Bill Clinton was inaugurated in 1993 and held the presidency until 2001, for example, which is during the same period as the increase in positivity on the court. The change of a new president, and a change in the presidents’ ideology, would likely affect the mood on the court. This is one of countless examples that could prompt the difference in sentiment.

Overall, when comparing the Justices' mean sentiment, table 11 shows that Ginsburg is the most negative, with Thomas slightly less negative, and Stevens as the most positive Justice on the court, by far. The aforementioned hypotheses can be supported by considering the relation between a Justices' initial sentiment valence and their overall mean sentiment. For example, Ginsburg's mean career sentiment of opinions is at about 0.062. In comparison, her earliest opinions have a sentiment closer to 0.060, and from that point she becomes more positive. After an increasingly positive group of opinions until right before the year 2000, she becomes more and more negative. Possibly, Ginsburg at first felt the need to write more positively than might have been her natural inclination, but after about five years on the court she accommodated less for her *ethos* and her writing stabilized. She then becomes one of the most even-keeled writers with less variation in the range of positive and negative language, suggesting she preferred to write her opinions with less explicitly expressive language. O'Connor, on the other hand, begins her career with an uncharacteristically negative writing style, closer to 0. Her mean career sentiment is one of the highest of the court, at about 0.123. After starting at such a negative point in relation to the rest of her opinions, she increases in positive language far past that mean sentiment, and then normalizes. O'Connor also has one of the highest standard deviations in sentiment throughout her career, at about 0.323, meaning she likely uses more variety in sentiment from opinion to opinion, unlike Ginsburg.

Thomas, like Ginsburg, begins writing opinions at a level of sentiment that is emblematic of his collective opinions, throughout all of which his mean sentiment is about 0.065. He becomes increasingly positive during the same period as Ginsburg, and then also falls back toward a more neutral language use. Possibly, Ginsburg and Thomas began their careers and immediately felt a need to write more positively, which affected their opinions for the first five

years on the court, before they became more comfortable and started using sentiment in a more “natural” manner. O’Connor, on the other hand, began by writing opinions that were much more unusually negative than the rest of her career demonstrates. As the first woman to serve on the court, she may have felt pressure to use language either void of emotion or verging on negativity. Additionally, like the congresswomen of Pearson and Dancey’s study who specifically chose to discuss foreign policy and defense to counter stereotypes about women in politics, she might have felt pressure to take on more negative or divisive cases and write in a particularly disagreeable manner. After a few years, though, she writes more and more positively. Throughout her career, and unlike Ginsburg and Thomas, O’Connor uses a great deal of variation in her use of positive and negative language. It is difficult to say whether these changes in sentiment occur because of external pressures or dynamics within the court, but there are likely a mix of pressures and interests they accommodate for, especially as Justices who would have entered the court with a doubted *ethos*.

When contextualized with Ainsworth’s description of the female register, the similar language patterns between Justices Ginsburg, O’Connor, and Thomas might be correlated instead with an awareness of a marginalized status and a responsive *ethos*. The female register is associated with an interest in pleasing or appeasing people in power, likely with intent to be included or respected by the dominating group. As Thomas is the only person of color included in this dataset, it is intriguing that he is the only male Justice who also begins his career by suddenly writing more positive opinions. The distinction between the sentiment pattern of these three members of the court in comparison to that of the rest demonstrates that they invoked a similar approach to incorporating sentiment in their opinions. Though all Justices must learn to acclimate to interactions in the courtroom and to apply sentiment strategically, Ginsburg,

O'Connor, and Thomas would have had the added pressure of navigating a responsive *ethos* and always remaining aware of an embodied marginalized status.

CLOSE READING FOR SENTIMENT

To arrive at a better understanding of the intricacies of these language patterns, the results from the sentiment analysis must be contextualized by learning what the machine actually identifies as positive or negative sentiment. Sentiment is likely influenced by many factors, like the case itself or ongoing stylistic approaches to arguing cases. By looking at the documents marked as a Justices' highest or lowest sentiment throughout their career, a better picture of what the sentiment analysis determines as positive or negative in a court opinion can be identified and the sentiment patterns contextualized. As mentioned in Chapter One, the female dissents' top features include many positive appearing terms that are actually used to critique the majority opinion. The lack of contextualization made by sentiment analysis software is obviously one potential limitation, as the software initially only looks at individual words before then aggregating their valences. This means that words that are misleadingly positive, like "incentive" in the women's dissents, might mark a sentence as positive when it actually critiques a subject. This could potentially have thrown off the machine, so close-reading is necessary to verify the validity of these results, as well. Because this thesis is focused specifically on a responsive *ethos*, in accordance with the variation in sentiment pattern this close reading only attends to Ginsburg, O'Connor, and Thomas.

Negative Sentiment and Dissent. On a closer assessment of the results, the sentiment of an opinion actually often implies the content-matter of cases rather than only suggesting judicial style. A negative opinion is consistently one that refers to negative topics such as prisoners, burglary, or the death penalty, which requires that the writer uses *extremely* negative language to

describe the evidence and form their argument. For example, the 1986 court opinion *Whitley v. Albers*, one of O'Connor's most negative opinions, with a sentiment valence at -0.843, describes the step-by-step occurrences that led to an altercation between prison officials and prisoners, after an official was taken hostage and which resulted in the shooting of a prisoner.¹⁶ O'Connor writes:

Captain Whitley left the cellblock to organize an assault squad...Several inmates assured Whitley that they would protect Fitts from harm, but Klenk threatened to kill the hostage if an attempt was made to lead an assault...Meanwhile, respondent had left his cell on the upper tier to see if elderly prisoners housed on the lower tier could be moved out of harm's way in the event that tear gas was used. (*Whitley v. Albers* 315)

This narrative writing style continues throughout most of O'Connor's opinion. Obviously, the case's violent subject matter influences the sentiment analysis on its own, but O'Connor's decision to describe the case circumstances in-depth is the reason why so much negative matter appears. Additionally, O'Connor dissents in this opinion, and the language of disagreement likely exaggerates the already negative approach.

Similarly, one of Ginsburg's most negative opinions, *Carter v. US*, describes a bank robbery. Ginsburg begins straightaway with negative language: "At common law, robbery meant larceny plus force, violence, or putting in fear. Because robbery was an aggravated form of larceny at common law, larceny was a lesser included offense of robbery" (*Carter v. US* 275). Obviously, words like "robbery," "larceny," "force," "violence," "fear," and "offense" would trigger the machine to note the presence of negativity. Ginsburg does not spend as much time as

¹⁶ As a point of comparison, the overall mean sentiment of the entire corpus (not divided by Justice) is 0.1129505. As suggested earlier, though the cases may deal with negative matters, the genre of court opinions is generally more positive than negative, though only marginally.

O'Connor with a narrative approach, rather analyzing legal documents to determine whether "bank larceny is a lesser included offense of bank robbery." Still, though she might not write her analysis with the same descriptive approach, to fully analyze the case she must use language with consistently negative sentiment. *Carter v. US* is so extremely negative because it is a dissenting opinion that already deals with negative subject matter, like O'Connor's *Whitley v. Albers* opinion.

Similarly, in *Hudson v. McMillian* (1992), Thomas takes on another very negative topic, cruel and unusual punishment, resulting in the case having an especially low -0.972 sentiment rating. Thomas writes:

In my view, a use of force that causes only insignificant harm to a prisoner may be immoral, it may be tortious, it may be criminal, and it may even be remediable... but it is not cruel and unusual punishment. In concluding to the contrary, the Court today goes far beyond our precedents. (*Hudson v. McMillian* 18)

Again, Thomas elects to focus on the negative aspects of the case with a rhetorical flourish shown in the reiteration of "immoral," "criminal," and "tortious" to intensify the severity of the subject. The content of the case likely would already have given it a negative sentiment, regardless of this flourish. Again, Thomas voices his disagreement with the majority in this opinion, so the combination of dissent and negative subject matter makes this opinion exceptionally negative. For Ginsburg, O'Connor, and Thomas, the most negative opinion deals with violent or disturbing subject matter and is affected by the methods they take to fully disagree with the decision of the court.

Positive Sentiment and Concurring and "Respectfully" Dissenting Opinions. On the positive end of the sentiment spectrum are different indicators of sentiment, both in the content of a case and

type of judicial style. Cases marked as positive tend to argue about rights *given* to citizens, like public education or voting. While these cases might describe wrongdoing on the part of some party, they still focus on these positive, public ideas and their potential benefits. In *New York State Club Association Inc. v. City of New York*, O'Connor writes:

In a city as large and diverse as New York City, there surely will be organizations that fall within the potential reach of Local Law 63 and yet are deserving of constitutional protection. For example, in such a large city a club with over 400 members may still be relatively intimate in nature, so that a constitutional right to control membership takes precedence...The associational rights of such organizations must be respected. (*N.Y. State Club Association* 19)

This is a concurring opinion, which likely gives it more positive sentiment in comparison to a dissent. However, this case is already positive in content when put in comparison to cases describing issues with the death penalty or robbery, for example.

Like O'Connor's sentiment value for *New York State Club Association Inc. v. City of New York*, many of a Justices' most positive opinions are actually when they write in concurrence. Table 12 shows the overall means and standard deviations for concurring opinions in comparison to the full group of opinion.

Table 12: Comparison Between Sentiment of Entire Corpus and Concurring Opinions

Author	Mean (all)	SD (all)	Concurring Mean	Concurring SD
Breyer	0.082807459	0.246191034	0.174687284	0.253328468
Ginsburg	0.061919343	0.234182735	0.030456686	0.310718564
Kennedy	0.117811506	0.255666002	0.206170075	0.355299296
OConnor	0.122903349	0.322982161	0.189105725	0.389989346
Rehnquist	0.124780755	0.30263192	0.241701609	0.382353008
Scalia	0.091961167	0.317063199	0.152398355	0.370070141
Souter	0.099434665	0.296029988	0.204696839	0.512971462
Stevens	0.161743504	0.300807595	0.314452011	0.407037481
Thomas	0.064647341	0.291138856	0.070131393	0.301118088

Table 12 demonstrates that, in general, all Justices write with more positive sentiment when concurring, other than Ginsburg who becomes slightly more negative but increases in standard deviation when concurring. The act of concurring suggests that a Justice agrees with the majority of the court decision, but believes that the conclusion should have been arrived at through different means. Ginsburg, for example, writes in one of her most positive opinions, *Davis v. FEC*, a case which receives a 0.489 on the sentiment scale, “[t]he District Court's careful and persuasive opinion, as I see it, correctly concluded that the provisions challenged in this case are entirely consistent with *Buckley v. Valeo*...and all other relevant decisions of this Court. I therefore join Part II of Justice Stevens' opinion” (1). At times, concurring opinions are also somewhat more simply presented and shorter. In the previous selection from Ginsburg’s *Davis v. FEC* concurring opinion, the main focus of the opinion is that she agrees, but not fully. Words like “relevant,” “correctly,” “consistent,” and “join” are all likely positive in sentiment. At times, concurrence might even be more of a trigger for positive sentiment than the subject matter of a case, as Ginsburg’s concurring opinion in *Simmons v. South Carolina* suggests. Though *Simmons*

v. South Carolina attends to the death penalty and parole, *Simmons v. South Carolina* is one of Ginsburg's most positive opinions, at a 0.480 sentiment valence. The positive nature of this comes from Ginsburg aligning herself with opinions by O'Connor and Blackmun: "Justice Blackmun's opinion is in accord with Justice O'Connor on this essential point. O'Connor's opinion clarifies that the due process requirement is met if the relevant information is intelligibly conveyed to the jury" (*Simmons v. South Carolina* 174).

One of Thomas' early dissenting opinions, his 1992 opinion in *US By and Through IRS v. McDermott*, depicts how dissenting opinions might have more positive, agreeable language, even like a concurring opinion. This is a concrete example of a Justice "respectfully" dissenting, as Thomas disagrees with the majority decision by first stating, "I agree with the Court that under 26 U.S.C. § 6323(a) we generally look to the filing of notice of the federal tax lien" before writing, "I cannot agree, however, that a federal tax lien trumps a judgment creditor's claim to after-acquired property..." (*US By and Through IRS v. McDermott* 455).¹⁷ Though this is not a concurring opinion, he still associates himself with the majority before critiquing their decision. This again seems emblematic of a Justice who may not be operating with an assured *ethos*, as to be able to dissent and disagree he must first find accordance with the majority.

Fortunately, the machine seems to identify opinion sentiment successfully in general, though it would take more close reading and testing to further verify this. The trajectory of sentiment throughout a Justice's career then reflects *when* they are inclined to take on positive and negative cases as well as whether or not they agree with the rest of the court. "Positive" cases appear to be those that have to do with marginally positive subjects (e.g. rights of citizens

¹⁷ This previous selection is an interesting example of words that might make sentiment difficult to read. The words "I cannot agree" would not register as a cohesive unit, meaning that the "cannot" would not fully negate the "agree." Each word would instead receive its own sentiment numeric assignment.

to vote, to education, or to join particular clubs) that could have overall benefits, while “negative” cases suggest more severely criminal or violent subject matters. Positive and negative sentiment also correlates with definitive agreement or disagreement with the majority, respectively. Spikes or variations from the sentiment norm suggest that a Justice likely either wrote in concurrence with a case that already had “positive” subject matter or, on the other side of the spectrum, that they dissented with a “negative” case, resulting in a sentiment that polarized in one direction.

The three Justices with a responsive *ethos* only vary from the rest of the court during their first five years, suggesting that the influence of a questioned *ethos* on sentiment dissipates over time, likely as they become comfortable and secure. The combination of being a novice to the court and already having an embodied, responsive *ethos* culminates in a unique sentiment style. In all three examples, for about the first five years the Justices deviated from the normal pattern of the rest of the group and wrote more and more positively each year. This move could have been an intentional or unintentional choice to develop *ethos* by finding ways to voice agreement and make themselves one with the rest of the court. Presumably, they write in concurrence to join the majority partly to avoid ostracizing themselves early in their careers, while still voicing their individual opinions. Additionally, though the more positive case matter might suggest the type of case allocated to them, it also suggests the subject matter they felt they needed to focus on to most effectively argue their point. The deviation of their pattern, as well as the fact that all three Justices aligned with the pattern of the majority after around five years into their courtship suggests the shifting nature of a responsive *ethos*, and that sentiment, particularly, was something they accounted for when they were in the most precarious stage of their career. Finally, the full results suggest that the Justices tend to take on increasingly negative cases and to be more

disagreeable as their seniority on the court increases. However, the sentiment analysis is particularly intriguing in the similar pattern between Ginsburg, O'Connor, and Thomas' sentiment trajectories. The course of their sentiment separates them from the rest of the court, and reflects the types of cases they wrote about, which genre of opinion it was, and their stylistic choices within a given case.

SENTIMENT ANALYSIS OF DISSENTING OPINIONS

Performing sentiment analysis on the dissenting opinions is particularly interesting because of the seemingly obvious connotation dissenting opinions have with negativity. Dissenting opinions are always written in disagreement with the majority of the court, are often written in isolation, and are composed from the perspective of the failing side. However, as suggested by the female Justices' top dissenting features in Chapter One, the word-level features of dissenting opinions can be misleadingly positive. Though the positive features are surely used with sincerity at times, they can often be used either ironically or to critique the majority and involved parties in a case.¹⁸ This creates a complicated scenario for sentiment analysis, especially when using a word-based sentiment lexicon, because words that read contextually as negative might appear to be positive without proper framing. When considering gender and sentiment, the results could be warped since the women appear to use more of the falsely "positive" language in dissent. However, since the sentiment analysis considers sentiment for an entire sentence, the assumption is that the other words in a negative sentence will have some negative connotation, even if one feature is deceptively positive. Figure 5 displays the smoothed

¹⁸ Like the example of O'Connor using "incentive" to critique corrupt influences that are the impetuses behind crime.

sentiment for all Justices' dissenting opinions, and table 13 compares the means and standard deviations of sentiment between dissenting opinions and the full corpus.

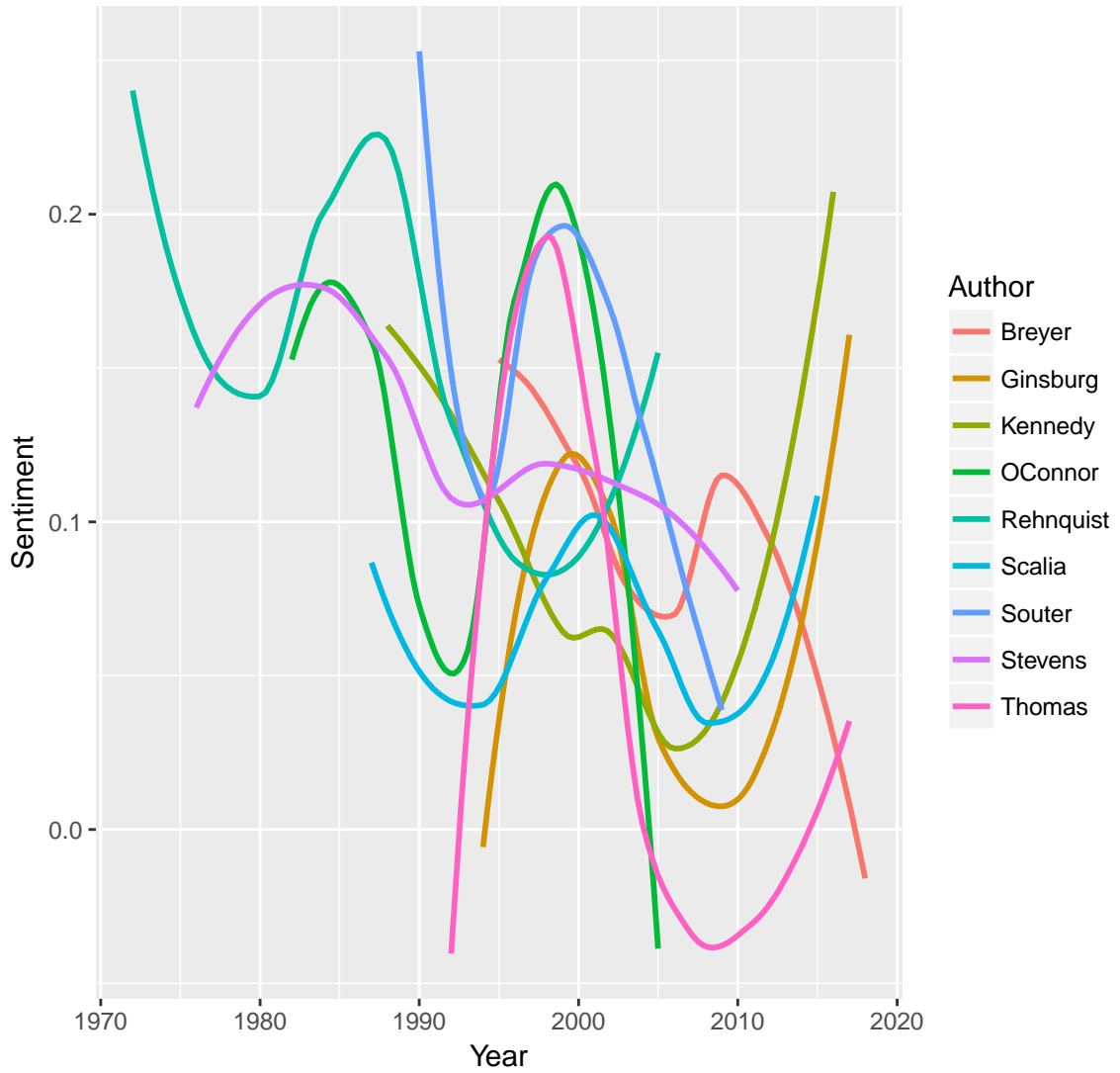


Figure 5: Smoothed Sentiment for Dissenting Opinions

Table 13: Comparison Between Sentiment of Entire Corpus and Dissenting Opinions

Author	Mean	Standard Deviation	Dissent Mean	Dissent SD
Breyer	0.082807459	0.246191034	0.098738052	0.208282341
Ginsburg	0.061919343	0.234182735	0.060963721	0.210450597
Kennedy	0.117811506	0.255666002	0.108702811	0.229837919
OConnor	0.122903349	0.322982161	0.142569643	0.389671296
Rehnquist	0.124780755	0.30263192	0.1577281	0.329660513
Scalia	0.091961167	0.317063199	0.065494052	0.291191636
Souter	0.099434665	0.296029988	0.131401353	0.208543
Stevens	0.161743504	0.300807595	0.137504625	0.288752013
Thomas	0.064647341	0.291138856	0.043263784	0.291382214

Table 13 shows that the overall mean of sentiment in dissenting opinions is lower, as would be expected, for five of the nine Justices, including Ginsburg, Kennedy, Scalia, Stevens, and Thomas. In contrast, and unexpectedly, four Justices (Breyer, O’Connor, Rehnquist, and Souter) write dissenting opinions using words that are indicative of positive sentiment, according to the software. Though this split between Justices and their positive or negative style seems relatively arbitrary, a consistent pattern is that each Justices’ standard deviation in sentiment decreases from the full corpus to the dissenting texts alone. This means that throughout their careers, Justices remain more consistent in their level of sentiment when writing in dissent. This is the case for the majority of Justices, including Breyer, Ginsburg, Kennedy, Scalia, Souter, and Stevens. Thomas’ standard deviation remains relatively the same, though it increases minutely from 0.2911 to 0.2914. Justice Rehnquist has a marginally higher standard deviation, as his increases from 0.3026 to 0.3297. Overall, though, none of the other Justices replicate a similar surge in standard deviation of sentiment as Justice O’Connor. While O’Connor already has one of the largest standard deviations for her collective opinions, her deviation rises from 0.323 to

0.390 for dissenting documents. This means that her dissenting opinions particularly have much more variety in sentiment, though for most of the rest of the Justices this is the opposite. Justice O'Connor likely also uses a greater range of positive and negative sentiment in her dissenting opinions in contrast to the rest of the Justices. Figure 6 shows the actual trajectories of dissenting sentiment throughout each Justices' career.

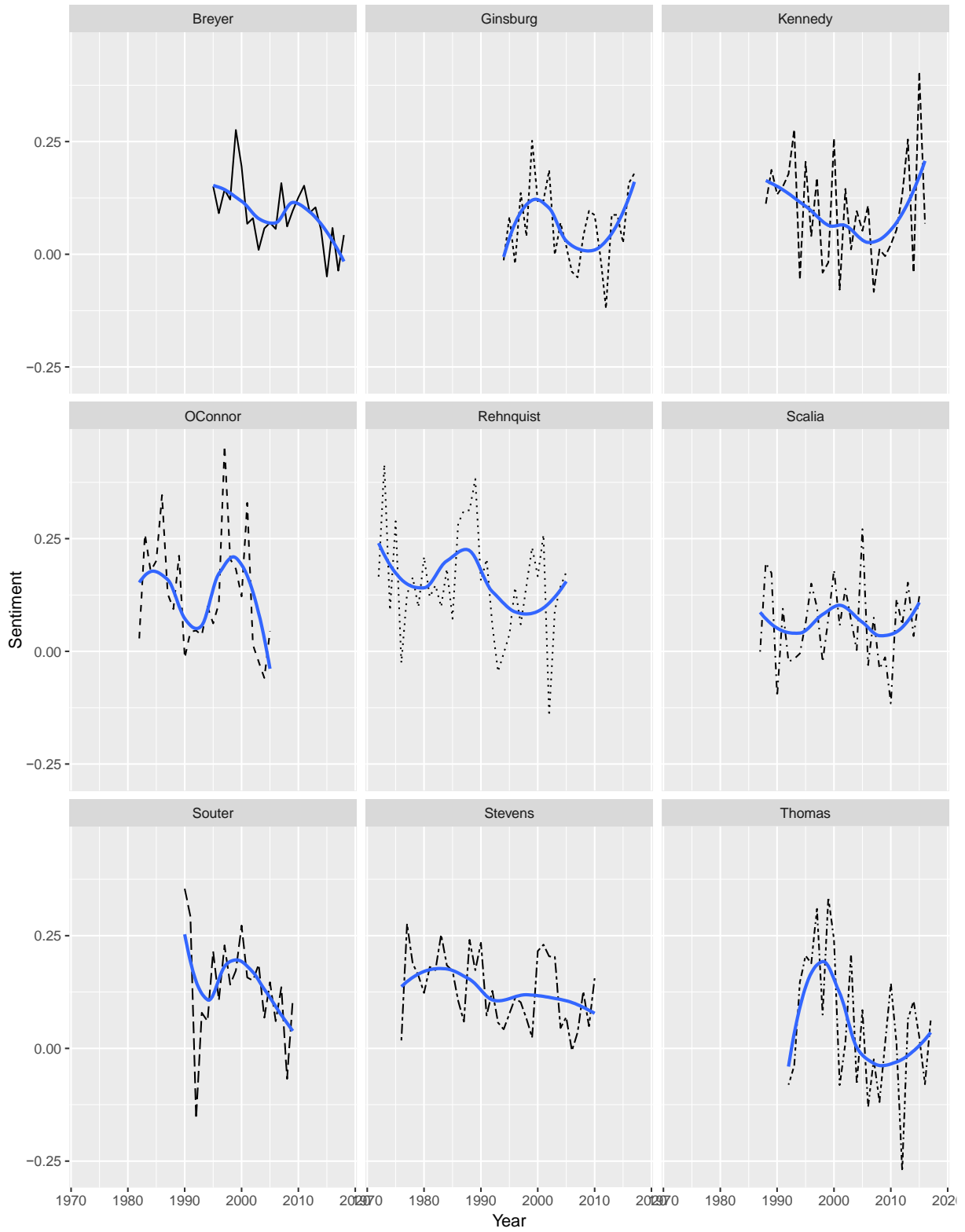


Figure 6: Individual Smoothed and Unsmoothed Sentiment and Standard Deviation for Dissents

On studying Figure 6, Justices Breyer, Kennedy, Souter, and Stevens sentiment patterns barely change between the full set of opinions and that of dissenting sentiment, though it might be relatively more or less extreme for each author individually. Scalia, who is known for his dissenting style, becomes regularized and less varied in his career's pattern. The dissenting style likely is what he refined most, so it makes sense that he would have a more consistent style of dissenting sentiment. Rehnquist appears to alternate between periods of writing dissents with negative or positive language, which is a pattern that is similar to his approach in the larger set of documents. Justices Thomas and Ginsburg again indicate similar patterns of sentiment, as both still become increasingly positive over the first few years of their careers, before suddenly using much more negative language. Though this is the same pattern as it was in the larger set of documents, the positive and negative changes are more extreme and perceptible. Justice O'Connor, again in variation from the rest of the court, replicates the pattern of Ginsburg and Thomas less in her dissents. Rather than becoming more positive immediately, within a short amount of time O'Connor writes negatively, and other than a positive peak around 2000, she usually writes more negatively when dissenting for each consecutive year on the court. However, with such a high standard deviation throughout her dissents, O'Connor likely writes so negatively in some opinions and so positively in others that this negative slope is potentially inaccurate.

Early in her career, in 1985, O'Connor writes her most negative dissents of all. At -0.844 *Tennessee v. Garner* is incredibly negative and a dissent where O'Connor fully disagrees with and critiques the majority opinion. She writes of robbery and the Fourth Amendment, stating:

By disregarding the serious and dangerous nature of residential burglaries and the longstanding practice of many States, the Court effectively creates a Fourth Amendment

right allowing a burglary suspect to flee unimpeded from a police officer who has probable cause to arrest...I do not believe that the Fourth Amendment supports such a right, and I accordingly dissent. (*Tennessee v. Garner* 23)

In contrast, O'Connor's second most positive dissent shows her succinctly agreeing with the opinion of another dissenter, Scalia, in *Saratoga Fishing Co. v. J.M. Martinac & Company*. At a sentiment valence of 2.0, O'Connor concisely writes, "I do not disagree with our decision to grant certiorari in this case, but I agree with Justice Scalia—and for the reasons he states—that we should affirm the judgment of the Court of Appeals" (*Saratoga Fishing Co* 885). In another of her more "positive" dissents, O'Connor agrees with another Justice in dissenting, in *Board of Education v. Pico*, writing, "I do not personally agree with the Board's action with respect to some of the books in question here, but it is not the function of the courts to make the decisions...I therefore join the Chief Justice's dissent" (921). The combination of the more positive subject matter (i.e. school curriculum) and agreement, even in dissent, gives this opinion such positive language.

Discussion. O'Connor's variation in dissenting sentiment suggests that she dissents in a wide variety of cases and that often, when dissenting, she still finds a way to cultivate agreement in some form. Still, in cases like *Tennessee v. Garner*, O'Connor does not appear to resist critiquing of the court. This tendency to vary in the sentiment of opinions holds with common knowledge that O'Connor often positioned herself as a moderator, of sorts, on the Supreme Court. Even while dissenting, she tries to find common threads between different positions of the argument. This moderator role is also what she has been critiqued for, as her critics accused her of being "wishy-washy," "almost manipulative," and "the great compromiser" on the court (Behuniak-Long 420). However, though these statements depict this compromising and attentive role

negatively, it actually reinforces the tactic O'Connor uses to develop credibility with her responsive *ethos*. To be a trusted member of the court, she demonstrates her abilities to find alternative options and circumvent disagreement, as well as to attempt to create cohesion within a divisive court.

Significantly, O'Connor fulfills this role of moderating while also being one of the most vital voices on the court, as the swing vote. O'Connor appears to be comfortable with fully disagreeing, but also attempts to find some form of agreement between parties. In "Justice Sandra Day O'Connor and the Power of Maternal Legal Thinking," Susan Behuniak-Long suggests that O'Connor placed herself in a specific style of legal thinking, which Behuniak-Long calls the feminine jurisprudence, that rejects masculinist thinking as the imperative norm, and instead always searches for a conciliatory approach. The concept of jurisprudence that she presents is useful in that it rejects dichotomous choices and looks for compromise or alternatives whenever possible. For example, a compromising dissent would "[offer] concessions to both sides, [emphasize] responsibilities, and [view] the concrete facts to discover" a gap between lines of precedent (Behuniak-Long 428-9). O'Connor's style of preservative jurisprudence create accord between members of the court, even when the court consistently functions to create division. Behuniak-Long argues that "[o]ne who replaces abstraction with concreteness, rights with responsibilities, and dichotomies with alternatives, is not lacking a legal vision or a jurisprudence, but is using a "different voice"" (437). O'Connor finds power in her moderator role, as others looked to her consistently as the essential swing vote. Though all Justices obviously concur with each other and find points to agree when possible, this is the defining attribute of O'Connor's career and creates the divergence in her dissenting sentiment. For O'Connor, dissenting looks positive when it focuses on conciliation.

When contextualized with Ryan et al.'s complication of *ethos*, O'Connor's preservative style depicts her constant awareness of the other members of the court and their perceptions of her. O'Connor clearly "draws from the multiple threads of her experience and interactions with others to create a relational and situated ethos, one responsive to and reflective of her evolving, multiple roles" (Ryan et al. 1-2). As is demonstrated in the variety of her dissent, O'Connor can be both the moderator of the court as well as a Justice who fully dissents; these roles cannot be separated, but they *can* be examined in how they create and culminate from her *ethos*. In a way, O'Connor seems to view the Supreme Court as an ecology, as regardless of individual differences they must work together and cohabit the court for it to function properly and for the good of the country. She, and the rest of the court, collaborate and diverge from each other to make the decisions they believe most lawful, moral, and ethical. Every Justice, regardless of their ethos, navigates judicial identity and style in their own way, but the act of agreeing or disagreeing, and the style used when doing so, is imperative to them furthering what they believe is lawful. When it comes to sentiment, this means knowing the right moments to entirely disagree as well as knowing when to appease the majority. Though all Justices navigate this, Justices with a responsive ethos, like Ginsburg, Thomas, and O'Connor, must carefully cultivate a judicial identity that can be absorbed into the dominant majority of the court while still voicing their own opinions.

CONCLUSION

In conclusion, and in consistency with Ryan et al.'s feminist ecological ethē, there are no simple or clear-cut answers to how the first women to serve on the Supreme Court built *ethos* in their rhetorical and strategic choices. However, there are distinct differences between the language of Ginsburg and O'Connor and the men who serve on the court with them, and these differences often reflect the presence or lack of an assured *ethos*. When looking at word-level choices, the female Justices consistently refer to secondary evidence or to past court proceedings to perform their capacity for judicial style. They also use words that depict their understanding of precedent or the way the court conventionally proceeds. In contrast, the male Justices argue their ideas in more assertive or assumptive manners, using language that suggests a greater degree of interpretation and that tends to scorn the conclusions arrived at by disagreeing parties. Both of these rhetorical moves convey their own certainty in their ethos, as well as their belief that they are entitled to question and comment upon the *ethos* of the rest of the court. For dissenting documents, while the male Justices' language remains relatively consistent to the full corpus, the female Justices demonstrate new strategies. When dissenting, O'Connor and Ginsburg rely more on evocative language suggestive of both positivity and negativity, whereas the men on the court's language remains ostensibly neutral. This result is intriguing, as dissenting opinions are when a Justice is more secure to rely on their own style and to forego appealing the majority, meaning individual style become more apparent.

The evocative language used by the female Justices prompts a consideration of how sentiment-based language functions within court opinions. When considering the sentiment used by a Justice throughout their career, the patterns during the first five or so years divide into two groups: Justices with an assured *ethos*, and those with an embodied and responsive *ethos*.

Justices Ginsburg, O'Connor, and Thomas, the only women and African American man on the court, tend to write more positively than the rest of the Justices during their first five years on the court. This might reflect their hesitation to entirely disagree with the majority as well as a tendency to find ways to voice their agreement, when possible. Most positive language for these three Justices reflects a more positive case subject matter or some act of concurrence, while the negative language depicts especially negative or violent subject matter *or* dissent. The sentiment of dissenting opinions is similar to the larger set of opinions, however O'Connor becomes an outlier from the rest of the group when dissenting, because her standard variation in sentiment rises steeply while the rest of the courts' lowers. This variation in the positive and negative language that she uses in her dissents support conceptions of O'Connor as a moderator figure on the court who works toward the preservation of amity between its members. At the same time, it also reflects her position as a vital swing vote, and someone who was capable of dissenting totally when necessary.

Though these are only initial results to a much larger consideration of the rhetoric and *ethos* of Supreme Court women, they lead to new questions and possibilities for future research. Primarily, these results often beg the question of whether these characteristics of O'Connor and Ginsburg's language is something constrained to the two women who joined the court pre-2000, or alternatively, if Justices Sotomayor and Kagan also develop their *ethos* through similar methods. By expanding the corpus, these results can more certainly be tied to gender, and less likely to be influenced by something else. Additionally, the word-level results ought to be further validated by seeing what bigrams or trigrams (i.e. phrases) are most indicative of gender. By doing so, there is less risk of misreading the results by incorrectly assuming the way a word is used contextually. Finally, as Justices Ginsburg and O'Connor are individuals and represent

different ideological positions on their court, their individual language should be studied to compare and to identify their unique rhetorical choices. By doing so, hypothetically, Behuniak-Long's *feminine* jurisprudence (O'Connor) might find a counterpart with the alternative style that she presents, the *feminist* jurisprudence (Ginsburg).

With an ecological approach to *ethos*, each attribute of O'Connor and Ginsburg's *ethos* development and maintenance is constantly in flux and always reacting and interacting with multiple factors at one time. By using computational text analysis, a fuller picture of each woman's overall *ethos* and the similarities they share as marginalized Justices can become more apparent. While text analysis may have limitations and might overlook some of the more minute or momentary choices of *ethos* development, a feminist ecological *ethē* posits that not every facet of a rhetorical situation or career can ever be identified or understood. A multiplicity of rhetorical moves will never conform into one coherent or simple picture of *ethos*. Still, the word-level choices and sentiment used by Ginsburg and O'Connor suggests that both women consistently observed and strategically responded to the rest of the members of the court, including each other, to be considered essential, capable, and competent members of the court and to proceed as ethical judges.

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APPENDIX A: WORD-LEVEL FEATURES

Table 14: Top 100 Features Indicative of Gender Classification

Feature	Mean Difference	Gender
l.ed	0.418942857	M
s.ct	0.412571429	M
it	0.340457143	M
see	0.224714286	F
that	0.223571429	M
s	0.220028571	F
observed	0.219088889	F
since	0.215083333	M
l	0.214228571	F
app	0.213076923	F
but	0.205742857	M
which	0.201714286	M
quite	0.196466667	M
there	0.193	M
ed	0.1905	F
ct	0.188828571	F
link	0.183314286	F
id	0.174757143	F
say	0.17362	M
notably	0.1705	F
urges	0.1649	F
arg	0.161685714	F
seems	0.161555556	M
accordingly	0.153733333	F
upon	0.152153846	M
ibid	0.149876923	F
presumably	0.149685714	M
says	0.146955556	M
such	0.146657143	M
tr	0.1455	F
instructs	0.1448	F
is	0.144214286	M
this	0.141671429	M
latter	0.140355556	M

us	0.1362	M
maintains	0.1347	F
am	0.134325	M
at	0.130457143	F
be	0.130285714	M
wrong	0.129875	M
these	0.1289	M
much	0.12762	M
think	0.12646	M
would	0.125314286	M
respect	0.123466667	M
fact	0.1218	M
whereas	0.119733333	M
various	0.118022222	M
therefore	0.11675	F
of	0.1167	M
thought	0.116355556	M
by	0.115414286	M
either	0.114981818	M
more	0.113757143	M
g	0.113654545	F
u	0.11325	F
quoting	0.112563636	F
oral	0.112066667	F
namely	0.111514286	M
well	0.111461538	M
acknowledged	0.111428571	F
though	0.110636364	M
textual	0.11	M
ca	0.109030769	F
different	0.1074	M
believe	0.107090909	M
point	0.106763636	M
p	0.106123077	F
none	0.1056	M
follows	0.10555	M
perhaps	0.105155556	M
even	0.105057143	M

conclusion	0.10505	M
why	0.105022222	M
state's	0.103955556	F
text	0.10354	M
forth	0.103355556	M
ruled	0.102866667	F
here	0.1024	M
f	0.101928571	F
than	0.101885714	M
what	0.101246154	M
majority	0.100866667	M
quoted	0.100285714	M
decisions	0.100163636	F
make	0.099753846	M
have	0.098814286	M
government's	0.098771429	M
utterly	0.0985	M
post	0.097416667	F
other	0.095857143	M
being	0.09454	M
find	0.0944	M
mentioned	0.094266667	M
said	0.094109091	M
e	0.093861538	F
observing	0.093666667	F
fed	0.0935	F
course	0.093266667	M
some	0.093046154	M

Table 15: Top 100 Features Indicative of Male Classification

Feature	Mean Difference	Gender
l.ed	0.418942857	M
s.ct	0.412571429	M
it	0.340457143	M
that	0.223571429	M
since	0.215083333	M

but	0.205742857	M
which	0.201714286	M
quite	0.196466667	M
there	0.193	M
say	0.17362	M
seems	0.161555556	M
upon	0.152153846	M
presumably	0.149685714	M
says	0.146955556	M
such	0.146657143	M
is	0.144214286	M
this	0.141671429	M
latter	0.140355556	M
us	0.1362	M
am	0.134325	M
be	0.130285714	M
wrong	0.129875	M
these	0.1289	M
much	0.12762	M
think	0.12646	M
would	0.125314286	M
respect	0.123466667	M
fact	0.1218	M
whereas	0.119733333	M
various	0.118022222	M
of	0.1167	M
thought	0.116355556	M
by	0.115414286	M
either	0.114981818	M
more	0.113757143	M
namely	0.111514286	M
well	0.111461538	M
though	0.110636364	M
textual	0.11	M
different	0.1074	M
believe	0.107090909	M
point	0.106763636	M
none	0.1056	M

follows	0.10555	M
perhaps	0.105155556	M
even	0.105057143	M
conclusion	0.10505	M
why	0.105022222	M
text	0.10354	M
forth	0.103355556	M
here	0.1024	M
than	0.101885714	M
what	0.101246154	M
majority	0.100866667	M
quoted	0.100285714	M
make	0.099753846	M
have	0.098814286	M
government's	0.098771429	M
utterly	0.0985	M
other	0.095857143	M
being	0.09454	M
find	0.0944	M
mentioned	0.094266667	M
said	0.094109091	M
course	0.093266667	M
some	0.093046154	M
discussed	0.0913	M
event	0.090755556	M
assumption	0.0897	M
obvious	0.0893	M
perfectly	0.08864	M
might	0.087307692	M
simply	0.086766667	M
e.g	0.08665	M
how	0.086145455	M
nothing	0.0856	M
way	0.084745455	M
consists	0.08455	M
any	0.083528571	M
discuss	0.083366667	M
difference	0.083355556	M

obviously	0.0832	M
totally	0.0831	M
pointed	0.082933333	M
basic	0.0826	M
so	0.080528571	M
not	0.080242857	M
been	0.08	M
basis	0.0796	M
forbidding	0.0796	M
thing	0.078857143	M
wrote	0.078771429	M
constitution	0.0776	M
reasoning	0.076955556	M
understand	0.076525	M
those	0.0761	M
discussion	0.075325	M
dictum	0.07515	M
speaking	0.07484	M
assuredly	0.0748	M

Table 16: Top 100 Features Indicative of Female Classification

Feature	Mean Difference	Gender
see	0.224714286	F
s	0.220028571	F
observed	0.219088889	F
l	0.214228571	F
app	0.213076923	F
ed	0.1905	F
ct	0.188828571	F
link	0.183314286	F
id	0.174757143	F
notably	0.1705	F
urges	0.1649	F
arg	0.161685714	F
accordingly	0.153733333	F
ibid	0.149876923	F

tr	0.1455	F
instructs	0.1448	F
maintains	0.1347	F
at	0.130457143	F
therefore	0.11675	F
g	0.113654545	F
u	0.11325	F
quoting	0.112563636	F
oral	0.112066667	F
acknowledged	0.111428571	F
ca	0.109030769	F
p	0.106123077	F
ruled	0.102866667	F
f	0.101928571	F
decisions	0.100163636	F
post	0.097416667	F
e	0.093861538	F
observing	0.093666667	F
fed	0.0935	F
maintained	0.092566667	F
c	0.092476923	F
d	0.092285714	F
determined	0.091955556	F
brief	0.091769231	F
ordinarily	0.0913	F
gain	0.09116	F
urge	0.089733333	F
urged	0.08964	F
discrete	0.0885	F
pet	0.087533333	F
cf	0.086909091	F
remanded	0.08395	F
furthermore	0.083733333	F
measure	0.0824	F
erred	0.082133333	F
reasoned	0.0816	F
rev	0.0802	F
accord	0.0795	F

rule	0.078657143	F
articulated	0.0779	F
cert	0.07774	F
circuit	0.077516667	F
generally	0.07728	F
court	0.0766	F
appropriately	0.0761	F
commenced	0.07428	F
moved	0.074085714	F
concluded	0.073381818	F
vacated	0.072633333	F
hold	0.07154	F
proc	0.070628571	F
inform	0.07052	F
hardly	0.069942857	F
cadc	0.06975	F
pursuing	0.0697	F
civ	0.068733333	F
circuit's	0.068685714	F
diverse	0.0675	F
renders	0.06604	F
accords	0.0656	F
measures	0.065542857	F
instead	0.06508	F
asserted	0.064755556	F
d.c	0.0644	F
opposing	0.0644	F
withdraw	0.0642	F
contrast	0.064125	F
supp	0.061563636	F
ensure	0.06155	F
observes	0.0615	F
properly	0.061466667	F
notice	0.0592	F
personal	0.058622222	F
remained	0.057766667	F
recognized	0.05668	F
plaintiff's	0.056333333	F

threshold	0.0563	F
jury's	0.056057143	F
initially	0.055933333	F
judgment	0.055569231	F
on	0.055328571	F
however	0.054538462	F
certification	0.054285714	F
ins	0.0537	F
resolve	0.053422222	F
resident	0.0528	F

DISSENTING FEATURES

Table 17: Top 100 Dissent Features Indicative of Gender Classification

Feature	Mean Difference	Gender
it	0.397114286	M
l.ed	0.380171429	M
s.ct	0.372114286	M
see	0.336471429	F
l	0.303057143	F
at	0.294714286	F
quite	0.288488889	M
ct	0.270471429	F
that	0.269985714	M
ed	0.269842857	F
s	0.266985714	F
is	0.266442857	M
observed	0.2638	F
hardly	0.2612	F
omitted	0.254763636	F
say	0.2514	M
marks	0.250733333	F
d	0.248371429	F
much	0.245763636	M
notably	0.2438	F
quotation	0.231155556	F
these	0.227014286	M

since	0.224766667	M
seems	0.2236	M
contrast	0.21735	F
either	0.21715	M
measure	0.212	F
of	0.196742857	M
rev	0.194088889	F
recognizing	0.194085714	F
gain	0.18684	F
answer	0.184333333	M
what	0.183507692	M
cf	0.1834	F
aim	0.1833	F
do	0.181492308	M
link	0.179657143	F
says	0.177688889	M
u.s	0.177514286	F
acknowledges	0.176914286	F
arg	0.176371429	F
by	0.175828571	M
apparently	0.174533333	M
entirely	0.173488889	M
v	0.173257143	F
but	0.171385714	M
upon	0.168753846	M
inc	0.168230769	F
contain	0.167542857	M
wrote	0.167171429	M
two	0.167061538	M
which	0.166942857	M
threshold	0.16664	F
similarly	0.166488889	F
the	0.165957143	M
ante	0.165914286	F
latter	0.165888889	M
any	0.163971429	M
burger	0.1633	F
p	0.163	F

if	0.162957143	M
corp	0.162688889	F
hold	0.160266667	F
his	0.157642857	M
being	0.15742	M
obviously	0.1574	M
help	0.156575	M
well	0.156369231	M
m	0.15615	F
asserting	0.1544	F
this	0.153842857	M
seem	0.15375	M
properly	0.153688889	F
think	0.15352	M
far	0.15254	M
there	0.151957143	M
assumed	0.151771429	M
appropriately	0.15155	F
only	0.151442857	M
j	0.150907692	F
id	0.150142857	F
brief	0.149833333	F
relying	0.149771429	F
not	0.149371429	M
different	0.1488	M
follows	0.148325	M
quoting	0.147927273	F
declares	0.1479	F
writing	0.146	M
subsection	0.145575	M
reported	0.14388	F
fact	0.142861538	M
us	0.14215	M
course	0.141933333	M
various	0.141688889	M
a	0.141014286	M
awards	0.141	F
fit	0.140742857	F

unreasonable	0.140066667	F
amount	0.139822222	F

Table 18: Top 100 Dissent Features Indicative of Female Classification

Feature	Mean Difference	Gender
see	0.336471429	F
l	0.303057143	F
at	0.294714286	F
ct	0.270471429	F
ed	0.269842857	F
s	0.266985714	F
observed	0.2638	F
hardly	0.2612	F
omitted	0.254763636	F
marks	0.250733333	F
d	0.248371429	F
notably	0.2438	F
quotation	0.231155556	F
contrast	0.21735	F
measure	0.212	F
rev	0.194088889	F
recognizing	0.194085714	F
gain	0.18684	F
cf	0.1834	F
aim	0.1833	F
link	0.179657143	F
u.s	0.177514286	F
acknowledges	0.176914286	F
arg	0.176371429	F
v	0.173257143	F
inc	0.168230769	F
threshold	0.16664	F
similarly	0.166488889	F
ante	0.165914286	F
burger	0.1633	F
p	0.163	F

corp	0.162688889	F
hold	0.160266667	F
m	0.15615	F
asserting	0.1544	F
properly	0.153688889	F
appropriately	0.15155	F
j	0.150907692	F
id	0.150142857	F
brief	0.149833333	F
relying	0.149771429	F
quoting	0.147927273	F
declares	0.1479	F
reported	0.14388	F
awards	0.141	F
fit	0.140742857	F
unreasonable	0.140066667	F
amount	0.139822222	F
ibid	0.139030769	F
co	0.136984615	F
supra	0.136969231	F
concluded	0.135488889	F
concurring	0.134533333	F
closely	0.133566667	F
accord	0.13335	F
acknowledged	0.133342857	F
milller	0.1332	F
f	0.132114286	F
evident	0.132	F
steel	0.1312	F
internal	0.131044444	F
award	0.129888889	F
incentive	0.1292	F
convey	0.1283	F
scarcely	0.1274	F
ensure	0.12735	F
requirements	0.12714	F
tr	0.127	F
burdensome	0.126	F

dictates	0.1254	F
enables	0.1244	F
once	0.124288889	F
remain	0.12305	F
observing	0.12295	F
generally	0.12274	F
based	0.122338462	F
materially	0.1221	F
essential	0.122	F
dictate	0.1216	F
prime	0.1208	F
potentially	0.119371429	F
dept	0.119257143	F
services	0.11844	F
advanced	0.115971429	F
oral	0.1152	F
accompanying	0.1151	F
et	0.11485	F
grave	0.1143	F
ca	0.1142	F
injury	0.11334	F
damages	0.113	F
altogether	0.1128	F
liability	0.11248	F
named	0.11244	F
urged	0.11215	F
qualifies	0.1116	F
share	0.111228571	F
barring	0.1102	F
breadth	0.1102	F
defendants	0.11014	F

Table 19: Top 100 Dissent Features Indicative of Male Classification

Feature	Mean Difference	Gender
it	0.397114286	M
l.ed	0.380171429	M

s.ct	0.372114286	M
quite	0.288488889	M
that	0.269985714	M
is	0.266442857	M
say	0.2514	M
much	0.245763636	M
these	0.227014286	M
since	0.224766667	M
seems	0.2236	M
either	0.21715	M
of	0.196742857	M
answer	0.184333333	M
what	0.183507692	M
do	0.181492308	M
says	0.177688889	M
by	0.175828571	M
apparently	0.174533333	M
entirely	0.173488889	M
but	0.171385714	M
upon	0.168753846	M
contain	0.167542857	M
wrote	0.167171429	M
two	0.167061538	M
which	0.166942857	M
the	0.165957143	M
latter	0.165888889	M
any	0.163971429	M
if	0.162957143	M
his	0.157642857	M
being	0.15742	M
obviously	0.1574	M
help	0.156575	M
well	0.156369231	M
this	0.153842857	M
seem	0.15375	M
think	0.15352	M
far	0.15254	M
there	0.151957143	M

assumed	0.151771429	M
only	0.151442857	M
not	0.149371429	M
different	0.1488	M
follows	0.148325	M
writing	0.146	M
subsection	0.145575	M
fact	0.142861538	M
us	0.14215	M
course	0.141933333	M
various	0.141688889	M
a	0.141014286	M
such	0.139042857	M
himself	0.138975	M
way	0.138933333	M
sort	0.1386	M
passed	0.13725	M
with	0.135957143	M
even	0.1354	M
make	0.135061538	M
text	0.13478	M
he	0.133371429	M
me	0.13314	M
etc	0.1325	M
transferred	0.1325	M
proceedings	0.131745455	M
madison	0.131033333	M
comparable	0.130771429	M
called	0.1296	M
perfectly	0.129366667	M
parte	0.1286	M
correct	0.126733333	M
discussed	0.126	M
judge	0.124615385	M
possibly	0.124533333	M
whose	0.124133333	M
opinion	0.123984615	M
presumably	0.123925	M

does	0.123542857	M
back	0.123333333	M
imprisonment	0.12325	M
perhaps	0.123088889	M
explanation	0.1198	M
dealing	0.119571429	M
nothing	0.119483333	M
views	0.119244444	M
closed	0.119	M
understand	0.118125	M
after	0.117938462	M
have	0.1173	M
describes	0.116	M
dispose	0.116	M
has	0.115571429	M
later	0.11552	M
seemingly	0.1155	M
branch	0.115428571	M
conclusion	0.1154	M
rather	0.114630769	M
matter	0.114483333	M
lawmaking	0.1143	M

Appendix B: Sentiment Analysis

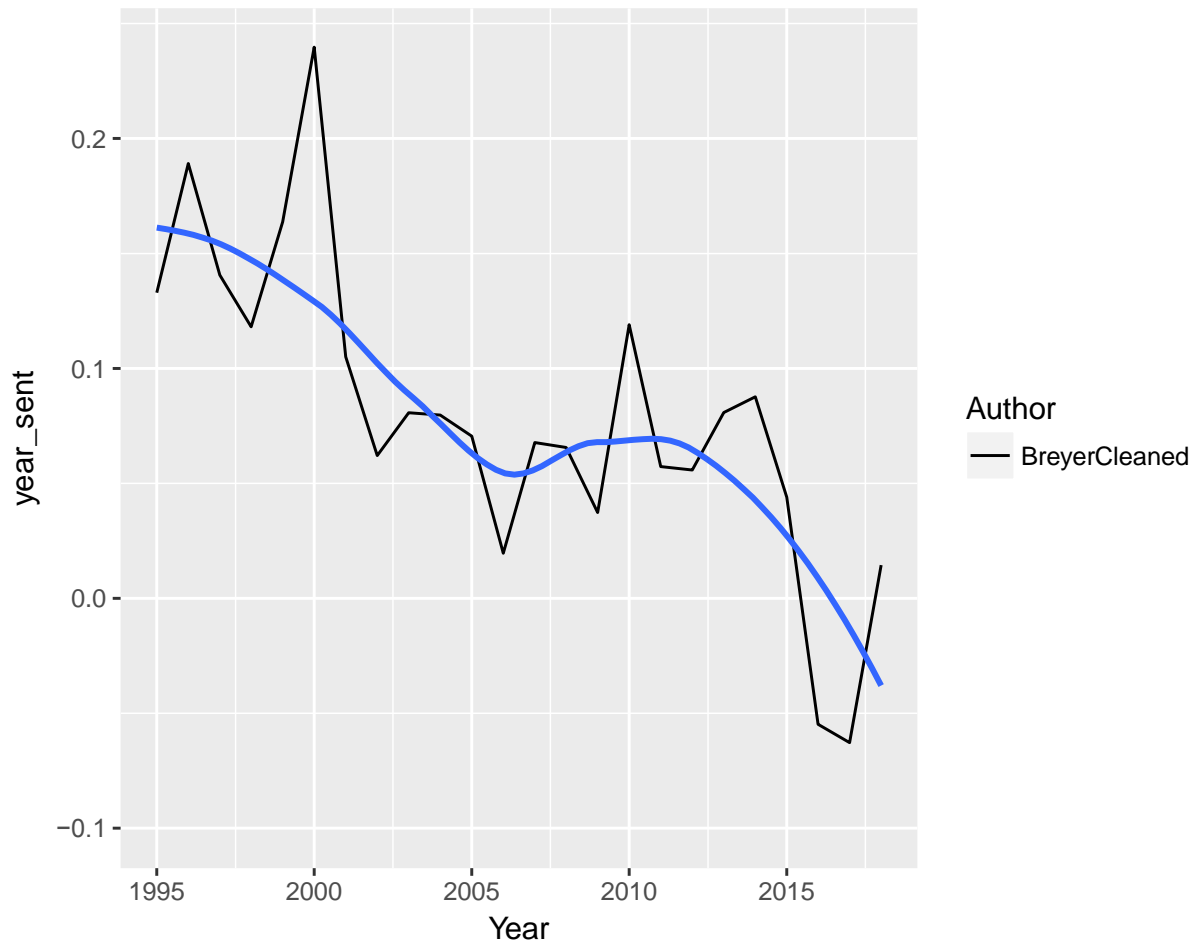


Figure 7: Individual Sentiment Trajectory of Breyer

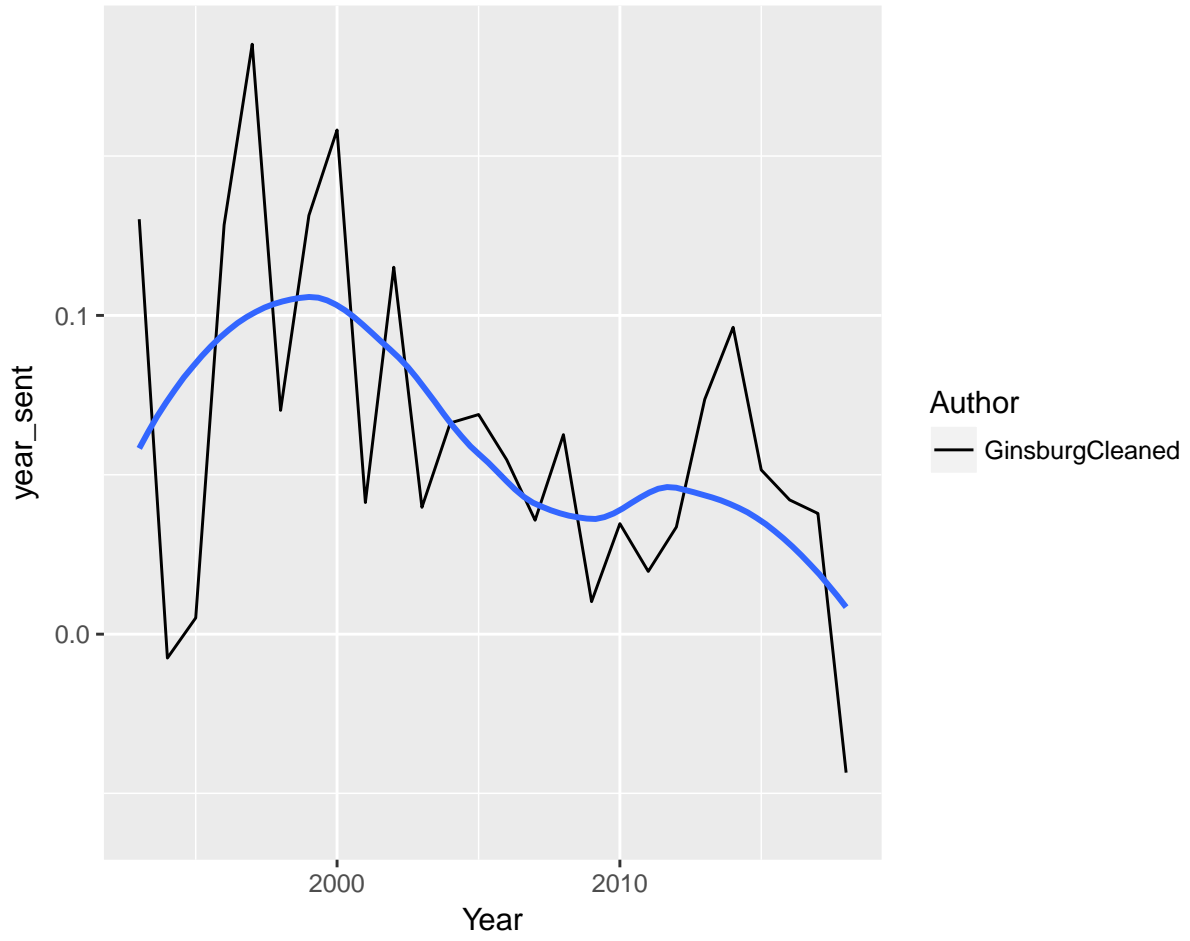


Figure 8: Individual Sentiment Trajectory of Ginsburg

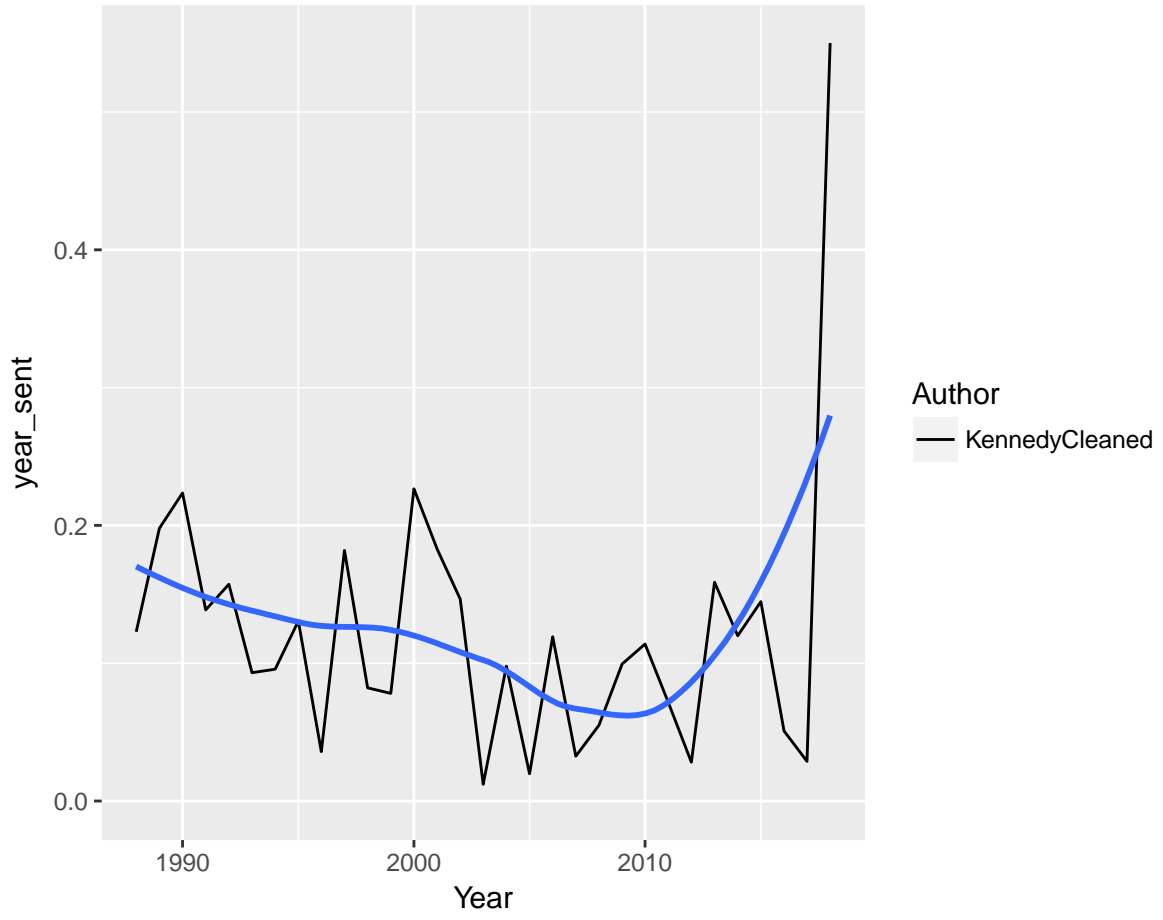


Figure 9: Individual Sentiment Trajectory of Kennedy

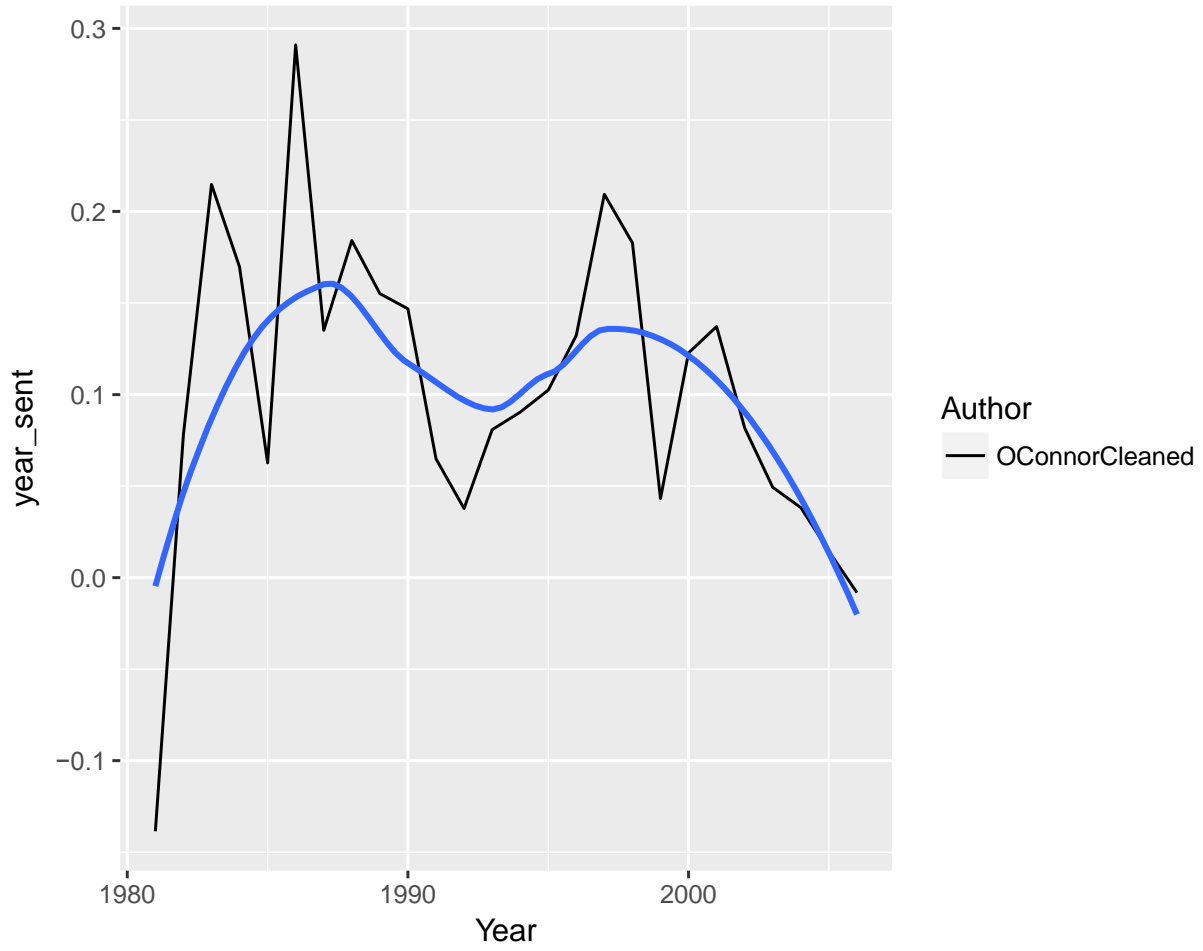


Figure 10: Individual Sentiment Trajectory of O'Connor

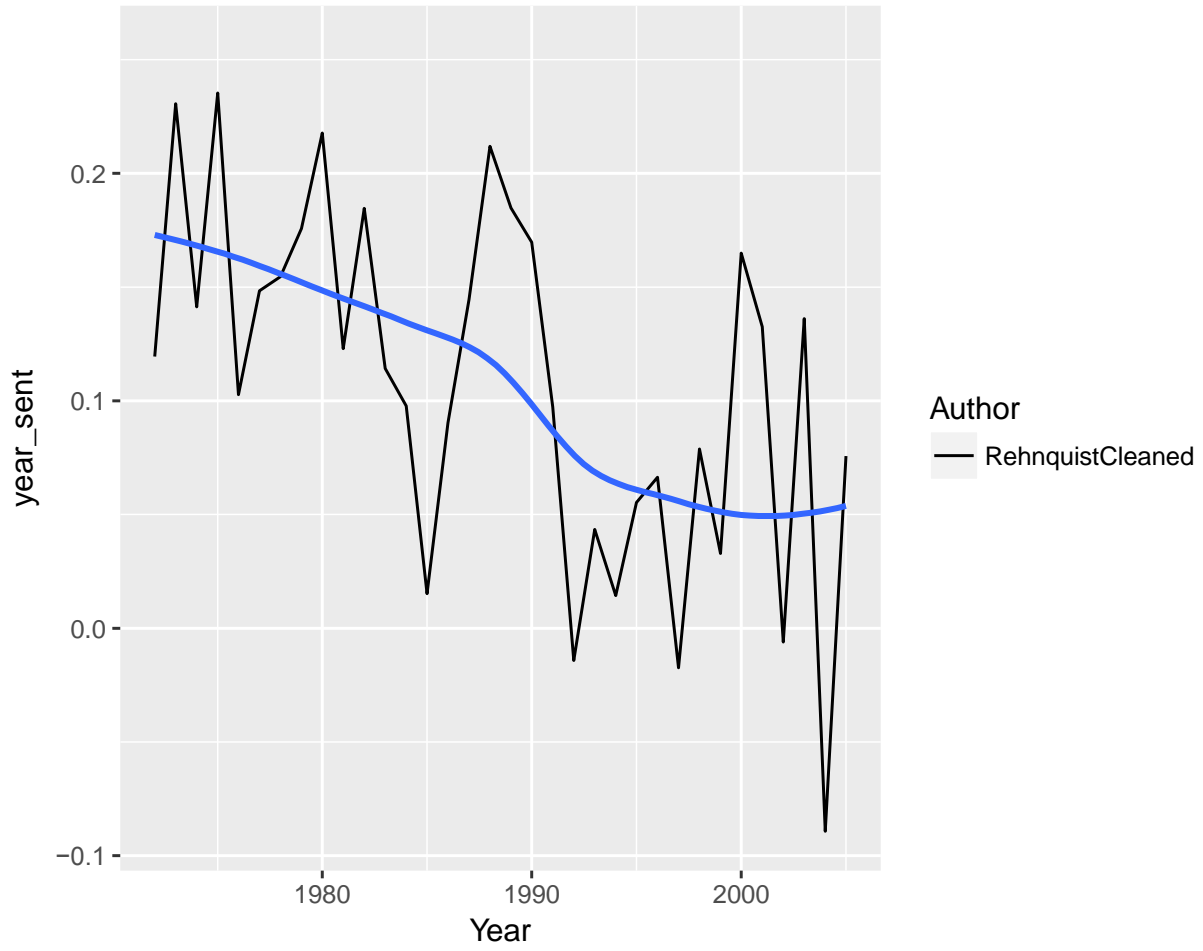


Figure 11: Individual Sentiment Trajectory of Rehnquist

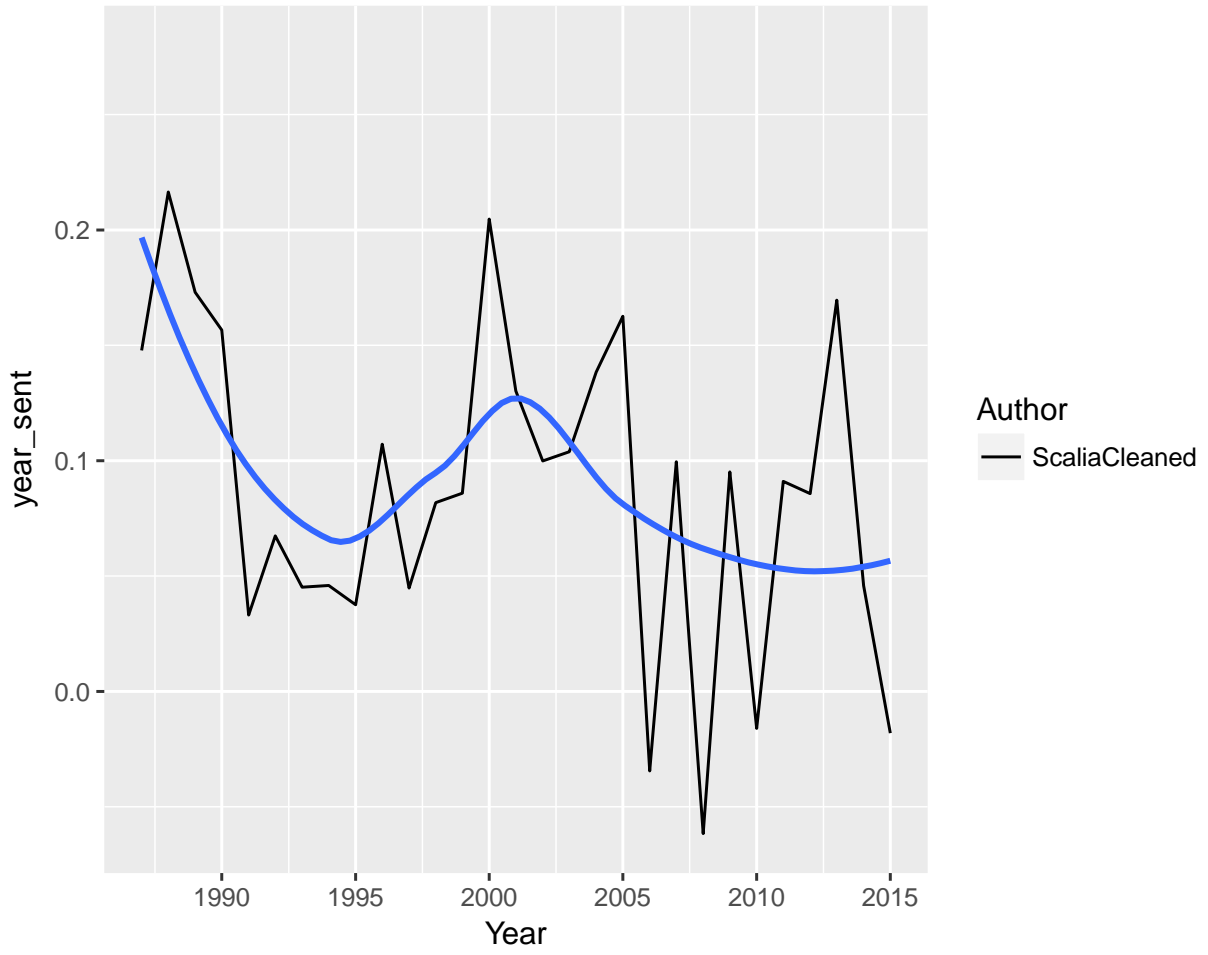


Figure 12: Individual Sentiment Trajectory of Scalia

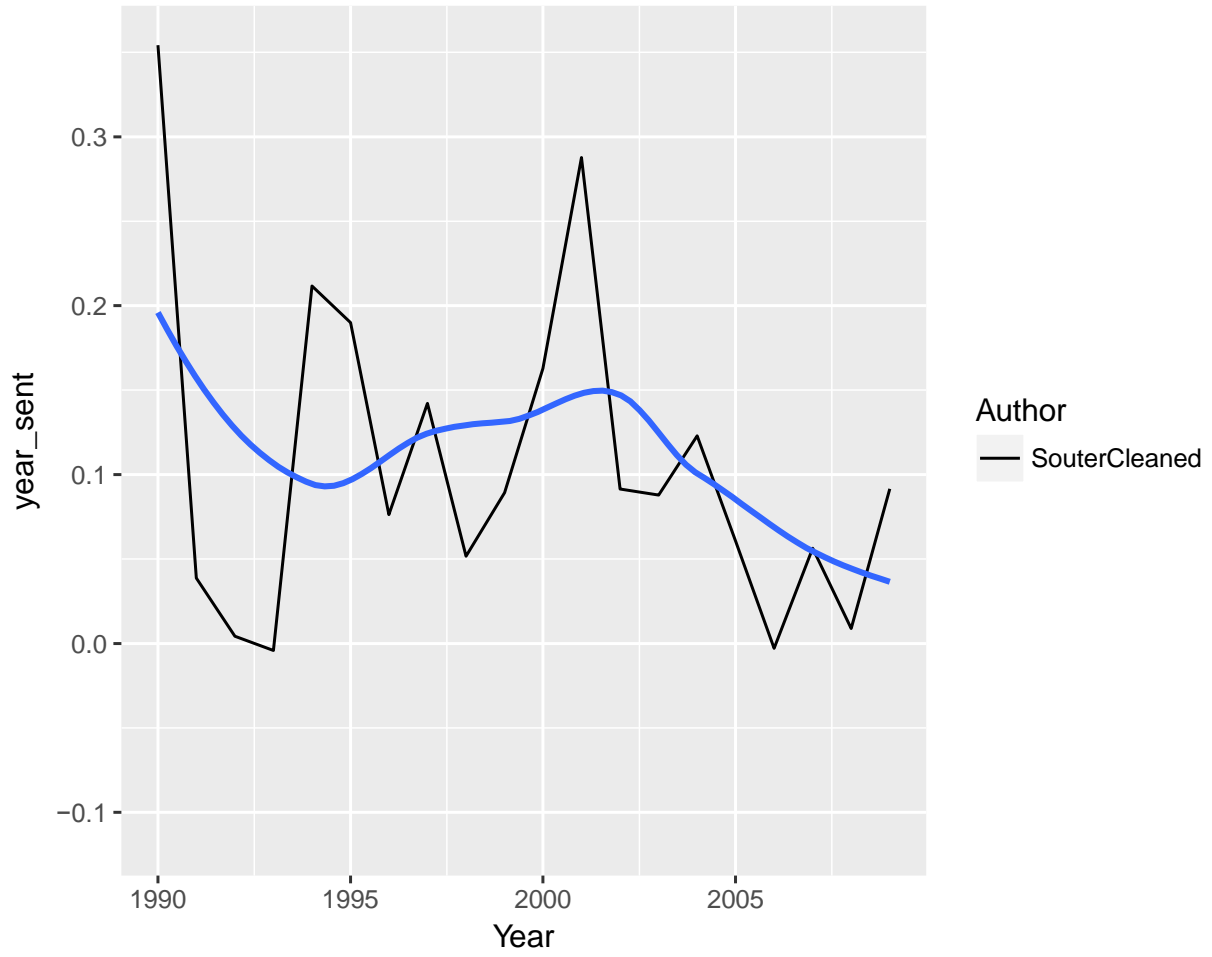


Figure 13: Individual Sentiment Trajectory of Souter

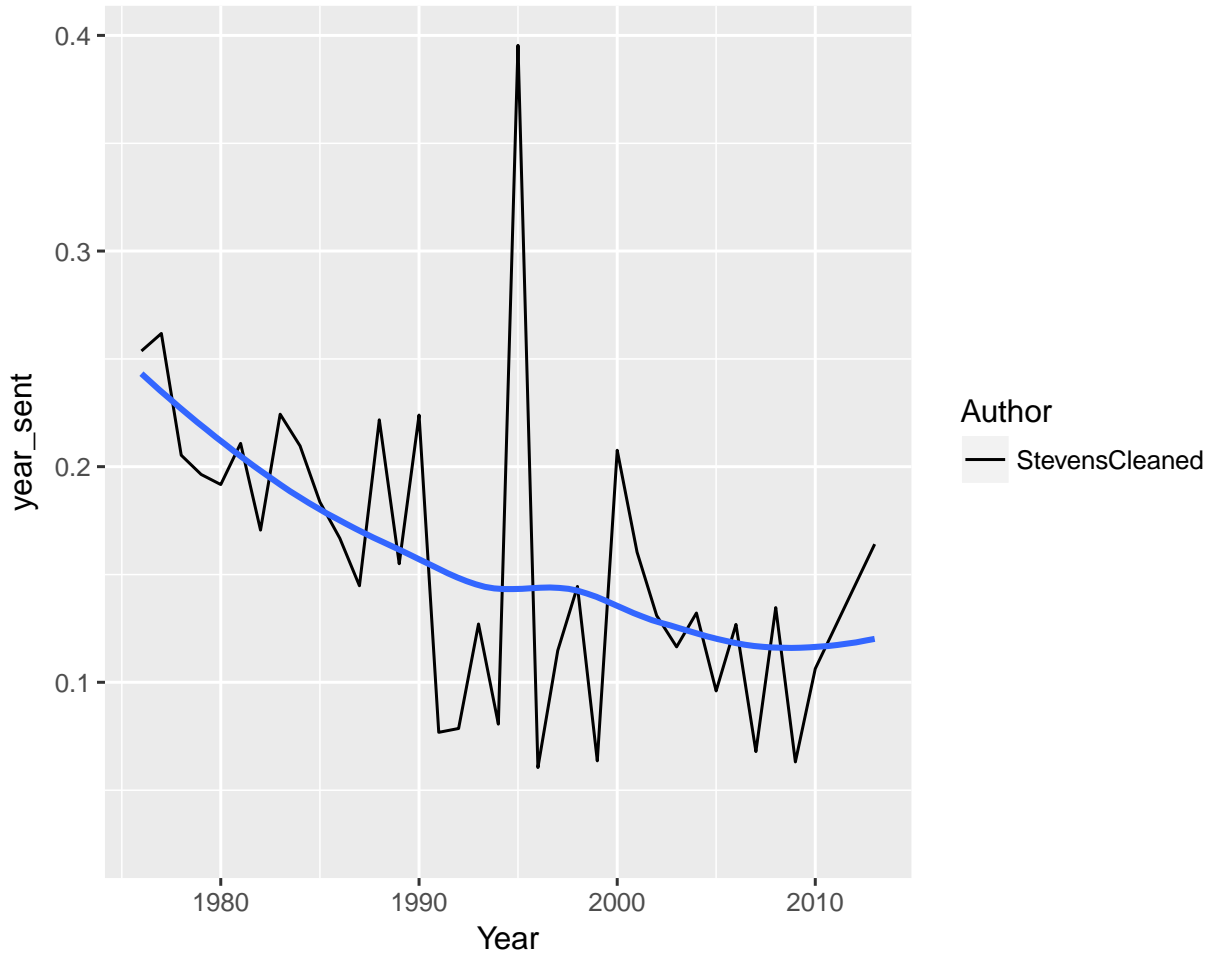


Figure 14: Individual Sentiment Trajectory of Stevens

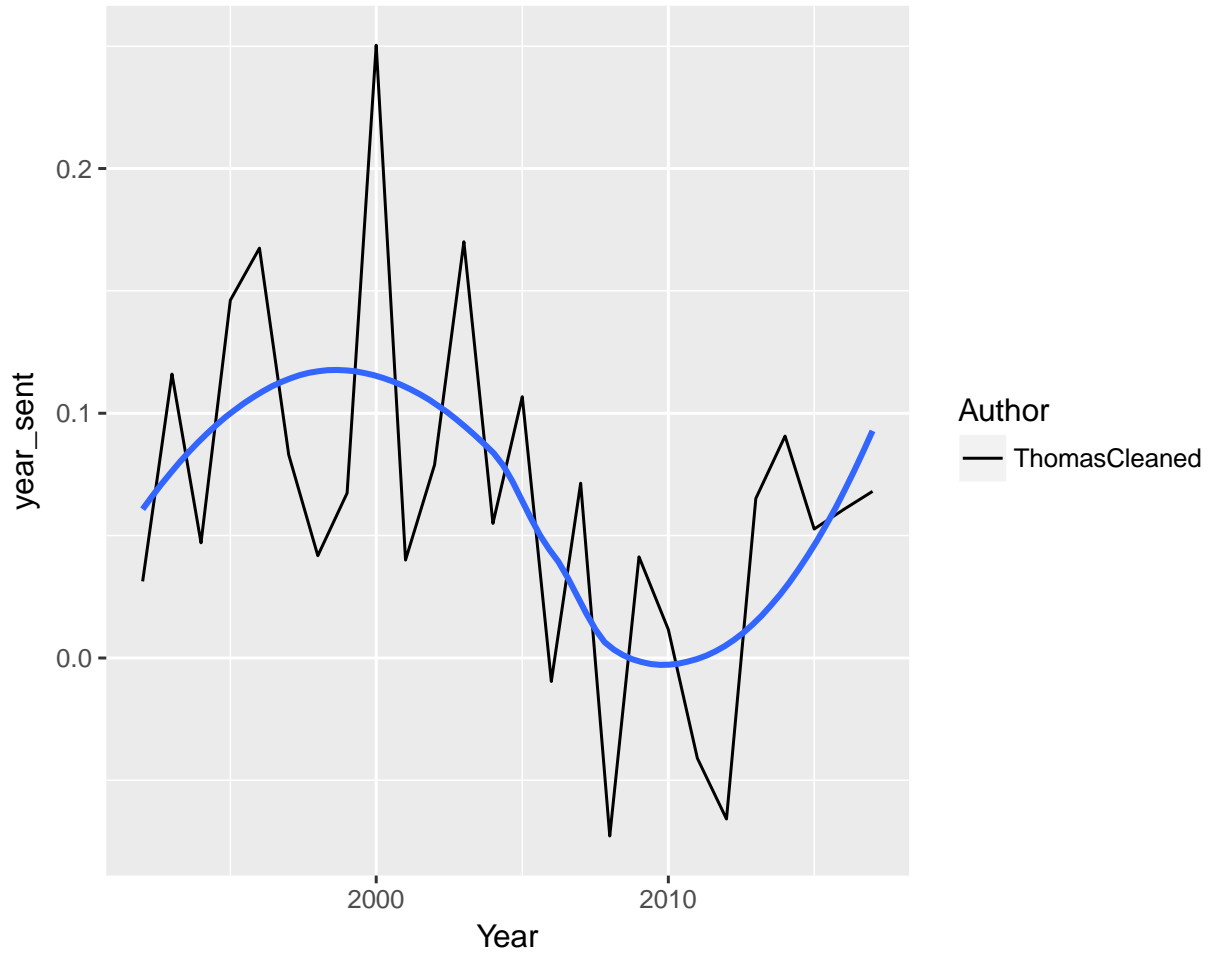


Figure 14: Individual Sentiment Trajectory of Thomas