The Influence of Unique Information in Briefs
on Supreme Court Decision-making

Morgan L. W. Hazelton
Saint Louis University
hazeltonml@slu.edu

Rachael K. Hinkle
University at Buffalo, SUNY
rkhinkle@buffalo.edu

James F. Spriggs, II
Washington University in St. Louis
jspriggs@wustl.edu

Abstract

Building on prior work considering the relationship between information found in briefs and Supreme Court opinions, we contribute to the existing literature regarding the impact of briefs on policy announced by the Court in a number of important ways. First, we employ computational text analytic tools to measure information within briefs as well as the relationship among information in briefs and Court opinions that allow for a more nuanced consideration of the influence of briefs than previously used quantitative techniques. We also consider a broader range of briefs: we expand the scope of consideration to all types of briefs at the merits stage, both party and amicus filings, and consider the entire substantive content of the briefs. Also, we do so over a broad range of cases: to assess the impact of the information communicated to the Court, we analyze the content of more than twelve thousand briefs filed in U.S. Supreme Court cases from 1988 to 2005.

Under all of the major theories of judicial decision-making, Supreme Court justices need information (Szmer and Ginn 2014; *see* Johnson 2001; Johnson, Wahlbeck & Spriggs 2006). Information helps justices assess the facts of the cases before them, existing precedent, the likely outcomes of various policy alternatives, and the probable reactions of the other branches and the public (*see* Epstein & Knight 1999; Johnson 2001; Johnson, Wahlbeck & Spriggs 2006; Szmer and Ginn 2014). While scholars generally consider briefs to be a vital source of information, many unanswered questions remain about the briefs themselves, the information they contain, and their influence on the decisions that justices make. These unknowns generally stem from the relatively limited scope of prior studies, which was generally dictated by existing resources.

Studies regarding briefs tend to focus only on specific types or aspects of the briefs. For example, while party briefs are considered to be of central importance (see generally Collins, Corley, and Hamner 2015; Corley 2008; Feldman 2015b; Johnson 2001; Lamb 1976), political scientists have primarily focused on the impact of amicus briefs (see generally Collins 2008). This interest in amicus briefs is due in part to concern regarding the impact of interest groups on policy announced by the Supreme Court (see, e.g., Collins 2004, 2007, 2008; Hansford 2004). Additionally, studies of amicus briefs often focus on case-level attributes, such as the number of amicus briefs filed (see, e.g., Collins 2004; Kearney & Merrill 2000) or the power of the interest groups filing amicus briefs (Box-Steffensmeier, Christenson & Hitt 2013). Even where the text of the briefs was considered, resource constraints have generally limited scholars to consider limited aspects of the text, such as: the Questions Presented (see, e.g., Coleman et al. 2013; Fischer 2009), the Arguments Section (or Issue Statements) (see, e.g., Spriggs and Wahlbeck 1997; Collins 2008), Table of Authorities (see, e.g., Collins 2008), text around searched terms (see, e.g., Collins and Solowiej 2007), or the conclusion (see, e.g., Collins 2007). There have

been a few studies that consider specific aspects of the text generally: for example, Collins, Corley, and Hamner (2015) looked at overlap in specific language in the briefs with the Court's opinion; and, Evans, McIntosh, Lin, & Cates (2007) used automatic content analysis to classify the ideological direction of amicus briefs filed in two interrelated cases. Thus, while amicus briefs have received considerable attention from scholars, there are many remaining avenues for inquiry.

Party briefs have traditionally received less attention from political scientists (but see Corley 2008; Epstein & Kobylka 1992), but that trend seems to be coming to an end (see Black et al, 2015; Coleman and Brady 2010; Feldman 2015; Wedeking 2010). Whereas previously political scientists generally only used party briefs as a point of comparison for amicus briefs (see, e.g. Chen 2006; Collins 2008; Spriggs and Wahlbeck 1997; Wofford 2015), increasingly scholars are investigating the influence of party briefs in their own right (see Black et al, 2015; Coleman and Brady 2010; Feldman 2015; Wedeking 2010). For example, political scientists have begun to consider the influence of specific aspects of party briefs, such as framing (Wedeking 2010), specific language (Collins, Corley, and Hamner 2008; Feldman 2015, 2015b), readability (Coleman and Phung 2010), and emotional language (Black et al. 2015). A relatively small number of studies have considered the influence of briefs on the merits as whole, looking at both party and amicus briefs (see Comparato 2003 (state courts); Epstein & Kobylka 1992). While all of these studies offer important insights, we must further investigate the type of information communicated in the briefs in order to better understand the impact of the briefs generally (Spriggs and Wahlbeck 1997).

In this project we contribute to the understanding of the influence of briefs by using modern computational tools that allow us to consider the relationship between nuanced aspects

of the textual content of more than twelve thousand party and amicus briefs and the decisions

that justices make. Such an approach allows a systematic accounting of large amounts of text

that would not be feasible via traditional methods (see, e.g., Coleman and Phung 2010; Collins,

Corley, & Hamner 2014, 230; Collins, Corely, & Hamner 2015, 919; Evans, McIntosh, Lin, &

Cates 2007; Grimmer & Stewart 2013).[1] We apply these tools to a larger corpus of briefs from

the merit stage than is usually seen in studies - more than twelve thousand briefs filed from 1988

to 2005 (see, e.g., Black et al. 2015 (1984-2007 - petitioner and respondent briefs in 1,677

cases); Coleman & Phung 2010 (1969-2004 (incomplete set) - about nine thousand briefs);

Collins, Corely, & Hamner 2014 (2002-2004 - 2,636 litigant and amicus briefs); Collins, Corely,

& Hamner 2015 (2002-2004 - 2,016 amicus briefs); Spriggs & Wahlbeck 1997 (1992 - 460

amicus briefs)); this dataset includes initial petitioner and respondent briefs as well as petitioner

reply briefs and amicus briefs. We proceed in four sections. First, we investigate the literature

and theories regarding the provision of information to the Supreme Court via party and amicus

briefs. We pay particular attention to the novel or overlapping nature of the information. Next,

we describe our data and methods and how we operationalize the various aspects of information

contained in the briefs and other relevant factors. At this point, we report our findings. Finally,

we conclude regarding what we have found to date and discuss future research.

---

[1] While close reading and qualitative analysis of briefs in a single case or a small number of
cases within an issue area can provide important insights (see Chen 2006; Epstein & Kobylka
1992; Samuels 2004), there is quite a bit of uncertainty regarding the generalizability of the
results (Collins, Corley & Hamner 2015, 919). Thus, these analyses, while deep, have limitations
in scope. Because quantitative and qualitative studies can be naturally complementary of each
other, such qualitative studies should be supplemented with quantitative research where possible
(*see* King, Keohane and Verba 1994; Morgan 2014). Text analytic tools help us consider at least
some of the richness in the texts while not sacrificing broader inference (Collins, Corley &
Hamner 2015, 919).

Information and Decision-making

For a policy-maker, such as a Supreme Court justice, faced with a decision, there is generally uncertainty regarding the relationship between policy and outcomes (see, e.g., Gilligan & Krehbiel 1987; Johnson, Wahlbeck & Spriggs 2006; Krehbiel 1991; Owens et al. 2013; Rogers 2001): "[t]he problem for political decision makers is that information is not always plentiful and it can be costly to obtain; they therefore often face uncertainties about which choices will lead to the distributional consequences they most desire" (Johnson, Wahlbeck & Spriggs 2006, 100). Thus, the justices require information about the likely effects of alternative policies (see, e.g., Collins 2004; Collins 2007; Epstein & Knight 1999; Johnson, Wahlbeck & Spriggs 2006). The required data can include expert, technical, and scientific data (see Breyer 1998; Collins 2007; Owens et al. 2013; Rustad & Koenig 1993, 93; Steinberg 2013). It may also include specific information about the facts of the cases because the decision crafted by the Supreme Court will be applied in other cases by lower courts using analogical reasoning (see Aldisert 1990; Braman & Nelson 2007; Schauer 1995, 1987; Sunstein 1993).

Because Supreme Court justices must rely on others to implement their decisions, the information the justices need also includes the extent to which other institutional actors, interest groups, and the public will support their decisions and the means by which they made them (see Epstein & Knight 1998, 1999; Johnson 2001, 333). Due to the nature of the Supreme Court's decision making and its institutional role, information regarding the existing legal framework, including precedent and threshold issues, are important as they relate to legitimacy (see Epstein & Knight 1998, 1999; Johnson 2001). Additionally, the information required and desired by the justices when forming policy has generally increased in the digital age (Berring 2000).

Party Briefs and Information

The American Court system has several key features that make it likely that party briefs will be highly informative. First is the adversarial nature of the system: by having rivals supply facts and legal arguments to the Court, the system produces a "'marketplace of ideas'" from which the truth can be determined (Miller & Barron 1975, 1189; see also Solowiej & Collins 2009). The adversarial nature of the system provides incentive for the parties to collect and provide costly information to the Court (Kim 2014; see also generally Wangerin 1994). Additionally, due to standing requirements (see Anderson 2015; Marvell 1978, 41-42), the Court has information regarding the actual outcomes of previously made policy decisions (see Rogers 2001). Furthermore, the hierarchical nature of the system lends itself to informative party briefs: generally by the time a case reaches the Supreme Court, the issues in the case are well defined and articulated (see Clark & Kastellec 2013; Kornhauser 1994; Marvell 1978); the factual record for the case was set at the trial court level; in the vast majority of cases, the litigants framed and argued the important legal issues in at least one appellate court; and, generally, the parties have been litigating, at both the trial and appellate level, for multiple years. While parties may adapt their arguments as the cases proceed (Scalia & Garner 2008; Wedeking 2010), cases before the Supreme Court are well developed.

Additionally, there are structural reasons party briefs may be particularly important in informing the Court (Black et al. 2015, 4). The sua sponte norm limits the Court's authority to only those cases and related issues that are brought before it (Black et al. 2015; Epstein & Knight 1999; Epstein, Segal & Johnson 1996). This restriction is understood to keep the Court from acting as a legislature and is important in maintaining legitimacy (Epstein, Segal & Johnson

1996). Thus, the parties may be particularly influential in defining the contours of the case (Black et al. 2015, 4).

There are reasons to believe the justices use party briefs as primary sources when crafting opinions (Collins, Corley, & Hamner 2015; Feldman 2015b; Johnson 2001; Lamb 1976; see Corley 2008). Collins, Corley, and Hamner (2015, 921 citing Lynch 2004) assert this is due, at least in part, to judicial norms related to the importance of parties and party briefs. Justices are more likely to engage party briefs either negatively or positively than amicus briefs, which justices tend to only engage when helpful (Collins, Corley, and Hamner 2015, 921); in this regard, the Court treats party briefs like binding authority and amicus briefs like persuasive authority (Collins 2008; Collins, Corley, and Hamner 2015, 921; Ennis 1984; Hinkle 2015; Lynch 2004). In this vein, Chen (2006, 226) found party briefs were more likely to be cited than amicus briefs.

At the same time, the information in party briefs is constrained in many ways, including by the relevant rules of evidence and set factual record (see Anderson 2015; Marvell 1978). The standing requirement of actual injury and the prohibition on producing advisory opinions also limit the scope of the information provided. Additionally, though parties in Supreme Court cases are often acting as interest groups, they usually also have personal interests they are attempting to vindicate, as opposed to focusing solely on more general principles. Thus, we anticipate the types of information generally contained in party briefs might not include all of the information justices require when making a decision.

Amicus Briefs and Information

Thus, it is unsurprising that amicus briefs also represent an important potential source of information for justices at the merits stage (see Collins 2004, 2007; Collins, Corley & Hamner

2014; Hansford 2004; Hansford & Johnson 2014; Kearny & Merrill 2000; Spriggs & Wahlbeck 1997). By allowing amici to file briefs with the Court, the justices are likely to get more—and potentially better—information. For example, Milgrom and Roberts (1986, 21) have shown that for full information to be provided to a court there needs to be an interested party "who is well informed, who has an opportunity to report, and who prefers the full-information decision to the proposed decision[.]" By allowing amici to file and provide information, the Court increases the chances that full information will be provided because more individuals and groups with varied interests are included (see Lamb 1976; see also Samuels 2004). In this vein, scholars have noted the inclusion of amicus briefs make cases "multi-sided" (Scott 2013 (citing Barker 1967; Krislov 1963)). The groups and individuals filing these amicus briefs do indeed vary widely in their nature and relationship to the case at hand (Anderson 2015; Collins 2008, 62-63; Collins & Solowiej 2007). These filers also vary in their relationships to the parties; while many amicus briefs are filed in support of a party to the suit, not all are (Anderson 2014; Ennis 1984; Puro 1971). Moreover, unlike parties, amici face little in the way of restrictions on the type of information they provide (see Puro 1971; Schweitzer 2003, 5). Furthermore, amici can help justices understand technical matters: Justice Breyer has stated that "[t]hese briefs help us become more informed, for example, about the relevant scientific 'state of the art'" (Breyer 1998, 26). By allowing for unrestricted information provision, the Court is more likely to receive full information (see Milgrom & Roberts 1986).

The justices behave in ways that indicate amicus briefs are an important source of information (see, e.g., Hansford & Johnson 2014; Larsen 2014; but see, e.g., Spriggs and Wahlbeck 1997). First, the Court itself sometimes requests amicus participation (Collins 2004). Next, the extent to which the Court has allowed nearly unfettered amicus participation is

circumstantial evidence the justices find the information found in the briefs to be helpful (Collins 2008, 45). Interest groups now file amicus briefs in nearly all cases before the Supreme Court and in increasing numbers by case (Hansford and Johnson 2014; Walsh 2003). Justices cite those briefs as the sources of various assertions and propositions: Larsen (2014, 1778) found justices cited amicus briefs 606 times in the 417 opinions issued by the Supreme Court from 2008 to 2013. There is also evidence justices draw information from amicus briefs more often than they cite to them (Chen 2006; Simpson 1999, 39; Scott 2013; see Ennis 1984). This phenomenon is likely part of a larger trend in legal writing known as judicial plagiarism, whereby judges and their clerks adopt material from briefs or lower court opinions without attribution (see, e.g., Bast & Samuels 2008).

Shared Information and Novel Information

Despite strong theoretical expectations that information in general is helpful to the Court, the fact that multiple players present information in each case complicates the picture. We engage with this contextual complexity by disentangling the impact of shared information found in multiple briefs from the impact of novel information found in only one brief. The theory and empirical evidence regarding these two different types of information are more nuanced than the general expectation that information is helpful. Due to the iterative structure of litigation, in which cases work their way through the judicial hierarchy with sequential briefing at each stage, the parties and amici at the Supreme Court level are often well aware of the potentially relevant information in the case, which includes theories, arguments, evidence, and facts; because the issues are generally well defined in Supreme Court cases, it should be no surprise that studies indicate briefs often contain quite a bit of information that is also provided by other briefs in the

same case (*see* Collins 2008; Collins, Corley, and Hamner 2014, 2015; Spriggs and Wahlbeck 1997; Wofford 2015).

Among the party briefs, we would anticipate parties provide repetitive information based on institutional structures and strategy (*see generally, e.g.,* Beazley 2010; Fontham 1985):[2] with the factual and legal disagreements between the parties generally understood, the petitioner is in a position to set forth its arguments and anticipatorily address the respondent's arguments (*see* Beazley 2010*,* §5.3; Stanchi 2008); while the respondent will address those arguments raised by the petitioner (*see, e.g.,* Beazley 2010, §5.3; Fontham 1985, §6.19; Garner 2001; 2003). As a result, all parties will naturally be discussing largely the same legal concepts and precedents. We also anticipate reiteration occurs among the party and amicus briefs. As noted by Collins, Corley, and Hamner (2014, 230) in reference to amicus briefs: "[S]ome level of repetition is to be expected since cases are argued and decided based on their facts and a common body of relevant law." Also, amicus briefs are often used to bolster the arguments of a party (Puro 1971; Ennis 1984). Spriggs and Wahlbeck (1997, 372) found that a majority of the groups filing amicus briefs (73.8%) reiterated arguments found in the brief of the party they supported. Collins, Corley, and Hamner (2015) argue repetition can be persuasive and find that amicus briefs with higher overlap with other sources are more likely to have overlapping language with Court opinions.

Of course, the repetition of information among briefs can, in and of itself, be seen as relevant information (*see* Collins 2004; Collins, Corley, and Hamner 2014; Kearney and Merrill 2000; Wofford 2015). As Collins, Corley, and Hamner's (2014) title suggests, the act of saying

---

[2] Of course, there are strategic decisions regarding the extent to which an advocate addresses an opponent's arguments and variation in approaches among attorneys (Beazley 2010; Stanchi 2008).

"me too" can inform the Court. As with other individuals (Lupia 1994), there is evidence that judges use short cuts in their decision-making (Guthrie et al. 2000, 2002). Thus, justice are likely to rely on cues, such as the number of times an argument is made, in assessing the importance and value of information (*see* Collins 2004; Collins, Corley, and Hamner 2014; Kearney and Merrill 2000; Wofford 2015). There is empirical evidence suggesting this is the case. Spriggs and Wahlbeck (1997) found that recurrence of the parties' arguments in amicus briefs increased the chance the Court would adopt such arguments. Wofford (2015) found that the number of supporting amicus briefs reiterating a legal rule suggested by the supported party increased the chances the Court would adopt said rule. There is evidence repetition may be particularly effective when groups with disparate interests align in arguments (*see* Goelzhauser & Vouvalis 2015). All of these findings suggest that presenting more shared information (also presented in one or more other briefs) is a way for a filer to increase their brief's impact.

> *Shared Information Hypothesis: More shared information will translate into greater influence.*

The flip side of the coin from shared information is novel information – those theories, arguments, and facts that are unique to a single brief. Theoretically, novel information could be of particular value to the justices, as it represents a rare commodity. However, there are different reasons that information may only be found in one brief. First, the information may be very hard to come by: technical information that demands expertise to produce, a brilliant legal argument by a singular talent, or inside information to which a party has unique access. In these instances, the unique information should be particularly valuable to the justices and, therefore, influential. But, the existence of extensive and iterative briefing of each Supreme Court case on the merits makes it very unlikely that another briefer would not repeat such information, either to adopt or

attack it. For high quality information to be presented by a lone source, it must be particularly exceptional. While this is certainly possible, we do not expect it to be a common occurrence.

Other reasons that novel information might appear in a brief indicate reasons why such information may generally not be valuable. Novelty may indicate particularly low-quality information that is harmful rather than helpful. For example, such low-quality unique information may be a bizarre legal theory, irrelevant or unreliable data, or tangential citations. Additionally, novelty in briefs could indicate that information is only relevant or salient to a narrow slice of society and, thus, of limited value in assessing impact.

Existing empirical evidence indicates that novel information is generally not influential on Supreme Court decision-making. Spriggs and Wahlbeck (1997) found that the Supreme Court is significantly *less* likely to incorporate arguments from amicus briefs that exclusively present new arguments (not presented by the parties). Similarly, Wofford (2015) notes that the justices only rarely adopt legal rules suggested by amici alone. While this evidence is limited, it suggests that unique information may, on the whole, be more likely to reflect particularly bad information than particularly good information.

Novel Information Hypothesis: More novel information will reduce influence.

Attitudes, Biases, and Decisions

In addition to quantity and quality, the justices' predispositions influence their response to information (see, e.g., Segal & Spaeth 2002). There are multiple explanations for such a response. Some scholars assert that this trend is a result of the justices being guided by their preferences or attitudes (see, e.g., Segal & Spaeth 2002). If so, the briefs likely merely provide the justices with "window-dressing" to justify their decisions (Segal & Spaeth 2002).

Other scholars point to semi-conscious or unconscious psychological functions as the source of such trends. There is a wealth of theory and evidence suggesting that motivated cognition or reasoning influences individuals' legal judgments (Sood 2014). For example, Braman (2009) and Braman and Nelson (2007) found evidence of motivated reasoning when individuals, including those with legal training, engaged in analogizing. In a similar experiment, Furgeson et al. (2008) found that law students were influenced by their ideological leanings in determining if a tax rate change was constitutional. In yet another example, Redding and Reppucci (1999) discovered that law students and state judges were influenced by their beliefs in assessing social science research. These findings are consistent with general findings that individuals are more likely to integrate new information if it confirms their prior beliefs (Hart et al. 2009; Kunda 1990; Redlawsk 2006; Taber et al. 2009; Taber and Lodge 2006).

Other accounts emerge in the literature. Spellman (2010, 149), building on social science research pertaining to analogical reasoning, theorizes that judges may apply certain analogies or precedents in cases as a function of prior knowledge as opposed to being outcome driven. Guthrie et al. (2000, 829; see 2002, 50) similarly conclude: "Even if judges are free from prejudice against either litigant, fully understand the relevant law, know all of the relevant facts, and can put their personal politics aside, they might still make systematically erroneous decisions because of the way they — like all human beings — think." All of these theories suggest, albeit for different reasons, that the ideological alignment between the Court and a filer will play a role in the association between the content of a brief and the Court's ultimate actions. An opinion written by a conservative court is more likely to incorporate arguments from a brief seeking a conservative case outcome than from an equally informative brief seeking a liberal case outcome.

Ideological Alignment Hypothesis: A brief submitted by a filer seeking a conservative (liberal) case outcome will have a greater impact when the Supreme Court is more conservative (liberal).

Data, Measures, and Methods

In order to evaluate the effects of novel and shared information provided in Supreme Court briefs we have amassed all such documents available for orally argued cases from 1988 to 2005. We began with all briefs available from Westlaw and then filled in the gaps where possible with briefs available from Lexis. Next, we consulted the archive of Supreme Court briefs located at Cornell University and scanned hard copies of the briefs not available on either Westlaw or Lexis.[3] Since our focus is decisionmaking on the merits, we exclude all briefs regarding whether a petition for certiorari should be granted as well as any briefs on motions that are not directly related to the disposition on the merits of the case. We have also excluded the small number of supplemental briefs filed by the parties as well as amicus briefs filed on behalf of neither party. The end result is a dataset composed of 12,492 briefs. Table 1 shows the specific breakdown of the different types of briefs in our dataset.

Since litigants and amici play different roles in the briefing process, we examine the effects of party briefs in a separate model from amicus briefs. Due to the adversarial nature of the legal system, we would anticipate the parties would have some unique information they use to bolster their arguments that amici would be less able to provide (*see* Miller & Barron 1975). First, parties are in a position to provide more information than amici simply based on the different word limits imposed by the Court (Rule 33). Therefore, each litigant has the ability to present more information to the justices than any single amicus. Also, the parties are most

---

[3] This data collection was funded by an Annual Research Grant from the Baldy Center for Law & Social Policy. We are also grateful to the law library staff at Cornell for their assistance.

intimately aware of the facts of the immediate case, having spent years litigating (*see* Collins, Corley & Hamner 2015[4]).

Of course, there are many reasons to anticipate that amicus briefs contain information not found in party briefs. As Ennis (1984) points out, those filing amicus briefs are not necessarily aligned with any of the parties to the suit. These unaligned parties are likely to bring a different perspective than the parties themselves. Additionally, amici generally care about the decision the Court will announce, but not in the same way as actual parties: "[amici] are … interested in the lawmaking aspects of deciding appeals, and not the case-deciding aspects" (Marvel 1978, 80). Moreover, amicus briefs can be seen as a means of supplementing the marketplace of ideas in the adversary system (*see* Larsen 2014, 1760 (*citing* Lowman, 1992)).

Based on the unusual position of amici we also anticipate that they provide different information than parties: "amicus curiae - nonparties who are nevertheless advocates, who are not bound by rules of standing and justiciability or even rules of evidence, and who can present the court with new information and arguments - occupy a unique place in the appellate courts" (Anderson 2015, 361-2). The fact that amici operate outside of the restrictions placed on parties opens the door for them to provide different types of information (*see* Puro 1971; Schweitzer 2003, 5). Thus, even where the amici are aligned with the parties, they are likely to make new arguments that the parties cannot due to limited resources, such as a lack available information, or institutional limitations, such as rules or norms against the parties raising certain points or arguments (Ennis 1984, 2-3). Modeling the effects of amicus briefs separately preserves the opportunity to observe any differences that may exist in how the Court uses the information provided therein.

---

[4] Collins, Corley & Hamner (2015, 920) note that amicus briefs generally do not discuss factual matters.

The unit of analysis in both the party and amicus models is the brief. We quantify the impact of a brief in terms of its similarity to the text of the majority opinion ultimately issued by the Court. While the most obvious form of influence may be on who wins and loses, there are also substantial advantages to be gained by shaping the content of the Court's legal analysis. Moreover, when the petitioner wins a case it is virtually impossible to parse out the influence attributable to each of the many briefs filed on behalf of the petitioner. The Court's opinion is an entirely different matter. It is a rich source of data that offers the opportunity to differentiate amongst many different briefs filed in the same case. Similarity between a brief and the majority opinion does not necessarily establish a definitive causal link between the information provided in the brief and how the Court crafts the law, but such similarity is certainly suggestive of influence. In the absence of any practical means to directly track the influence of information, we focus on exploring whether various characteristics of briefs are associated with greater similarity to the Court's opinion.

We turn to the field of computational linguistics to construct our outcome variable. The object is to find an objective and scalable technique to quantify the similarity between each brief and the majority opinion ultimately written by the Supreme Court. To accomplish this task, we utilize cosine similarity scores, a standard mathematical formula designed to summarize the similarity between two documents (Hinkle 2015). Using a corpus of all briefs and all majority opinions, we calculate the similarity between each brief and the relevant majority opinion. Cosine similarity scores are built using term-frequency, inverse-document-frequency (tf-idf) scores (*see* Manning, Raghavan & Schütze 2008, 109-10). Each distinct word in a brief or opinion has a tf-idf score calculated based on how often it appears in the document and weighted by how few documents in the entire coprus use that word (*see* Aizawa 2003). Just like letter tiles

in Scrabble, less common words (i.e., those that appear in fewer documents) are worth more. The cosine similarity between two documents is a normalized sum of the tf-idf scores of all words that appear in both documents. Each word that appears in both a brief and majority opinion increases the similarity score (while words that appear in only one document or the other are used to normalize the score). The resulting scores can range from 0 to 1 with higher values indicating greater similarity between the brief and the majority opinion. Figure 1 illustrates the distribution of these similarity scores in our data.

Cosine similarity scores are not the only possible way to measure similarity between two texts. Collins, Corley, and Hamner (2015) examine the impact of amicus briefs by utilizing plagiarism software to measure the percentage of opinion text that is borrowed word-for-word from an amicus brief. The benefit of this approach is that borrowing exact phrasing provides strong evidence that a brief had an impact on the opinion. In other words, false positives are unlikely. However, the drawback of using plagiarism software is that a brief may exert considerable influence that goes undetected. That is, there is a high probability of false negatives. A particularly stark example is that only one percent of the text of the majority opinion in *Mapp v. Ohio* was borrowed from the ACLU's brief in that case. Yet this is the quintessential example of an amicus brief shaping Supreme Court doctrine (*see, e.g.,* Spriggs & Wahlbeck 1997; Wofford 2015). The cosine similarity score between the ACLU brief and the *Mapp* opinion is 0.87, a score that clearly captures that brief's importance. This value is higher than the cosine similarity score for 99% of the amicus briefs in our dataset. While this is merely an illustrative example, it highlights the underlying reason we employ cosine similarity scores to account for a variety of ways information presented in a brief can ultimately impact the construction of the Court's opinion.

Our primary explanatory variables are a series of measures of novel and shared information provided within a brief. We begin by quantifying the overall novelty of a brief, compared to the other briefs submitted in the case, on a continuous scale. To do so, we employ a variation of the tf-idf scores discussed above. For each distinct word in a brief, we calculate a tf-idf score based on a sub-corpus containing only the briefs filed in that case. Each word's contribution to a brief's novelty is calculated based on how often the word appears in the brief weighted by how few briefs in the case use that word (*see* Aizawa 2003; Manning, Raghavan & Schütze 2008, 109-10). A word mentioned in every brief in the case has a tf-idf score of zero. The underlying idea is that such a word does not present a novel contribution to the information available to the Court. In short, tf-idf scores account for both the frequency of words in a brief, and their importance in the context of all briefs filed in that particular case. We need to summarize this complex information to the brief level in order to generate a useful metric that is comparable within and across cases. We use the median tf-idf score for each brief as a measure of the degree of novelty of the language in that brief. A larger value of this variable, *Overall Novelty of Language*, indicates that a brief contributes a greater amount of novel information to the Court relative to the other briefs in the case.

One concern raised by any measure that focuses on words in the absence of their specific textual context is the problem of negation (*see generally* Jia, Yu, and Meng 2009). Since tf-idf scores are a "bag-of-words" measure that counts individual terms without respect to the order in which they appear, this is a potential concern (*see generally* Wiegand 2010). When one brief uses the phrase "without merit" the word "merit" would get exactly the same weight as when another brief uses the phrase "with merit." Fortunately, there are only a handful of words in the English language that create such a problem. In order to address this concern we combine such

negation words with the following word in order to create a new token that is measured separately. The negations we collapse in this manner include "no", "not", "neither", "nor", "zero", "without", and "sans."[5] Using the forgoing example, our bag-of-words measure analyzes "merit" and "withoutmerit" as distinct tokens.[6]

In legal writing, not all information is provided by words in the traditional sense. Legal citations are a very important source of a particularly distinctive type of information (*see, e.g.,* Collins 2008; Hansford & Spriggs 2006). Attorneys naturally incorporate reference to case law in their legal arguments to the Supreme Court. Citations to precedents written by the Supreme Court itself are the most theoretically relevant source since they are most likely to influence the ruling of the Court. References to these cases take on a finite number of forms and, therefore, can be reliably extracted from text.[7] For each brief, we extracted all such citations and converted pinpoint citations back to full citations. Using citations as tokens, we calculate a second measure of novelty that captures how much unique information the precedents cited in a brief provide to the Supreme Court relative to all the other briefs in the case. Just like with words, a precedent cited in every brief has a tf-idf score of zero. A precedent cited in fewer briefs has a higher weight, and that weight is multiplied by the frequency with which it is used in a particular brief. The median tf-idf score of the citations in each brief is the variable *Overall Novelty of Citations*.

---

[5] The Linguistic Inquiry Word Count software contains a list of negations (Pennebaker et al. 2007). Our list is the subset of those words that operate to negate the following word. In addition, upon consideration of linguistic constructions that might arise in the context of legal writing, we added the Latin negation "sans" (without).

[6] As a practical matter, accounting for negations makes very little difference in our data and analyses.

[7] A python script was used to extract all text strings matching the format of a citation to a U.S. Supreme Court case. Extracted cites were compared against a list of valid citations to Supreme Court cases decided on the merits, and only validated citations were used for our empirical analyses.

Continuous variables that reflect the overall novelty of information in a brief are quite helpful because they construct a nuanced picture. However, influence exerted by information in even a small number of briefs leaves open the question of whether a particular brief was the actual source of that impact. Examining the role of information presented in only one brief provides a more targeted answer to that question, albeit one that is based on a smaller subset of the information provided in each brief. We measure unique information in terms of both words and citations to Supreme Court precedent. Each measure is simply a count of the number of times a brief uses a word, or cites a precedent, that does not appear in any other brief in the case. Word counts are measured in thousands to scale the results conveniently.

In order to accurately capture the effects of unique information, we must also account for its complement, the amount of shared information in each brief. We hypothesize that presenting information to the Court that appears in other briefs also influences the extent to which a brief has an impact on the construction of the majority opinion. Consequently, we construct variables for each brief that reflect the number of words (in thousands) and Supreme Court citations that are used in at least one other brief in the case. Although we model party and amicus briefs separately for purposes of evaluating the effects of unique information, we determine which words and cites are shared (and which are unique) using all briefs filed in a case.

Next we turn to the ideology of the Supreme Court. We cannot hope to understand how the informational content of each brief has an impact without accounting for the Court's baseline tendency to agree with the brief filer and to write an opinion putting forth similar arguments. But whose ideology is most relevant? On the one hand, the authoring justice has considerable control over the details of how an opinion is formulated. On the other hand, the author must construct an opinion that is satisfactory to the members of the majority coalition (Maltzman et al.

2000). In order to account for both of these possibilities we construct measures of *Ideological Alignment* for both the opinion author and the Court median.[8] We utilize a standard measure of Supreme Court ideology, Martin-Quinn scores (Martin and Quinn, 2002). When the filer is seeking a conservative outcome, the variable *Ideological Alignment* is the Martin-Quinn score of the applicable justice (either author or median) because higher Martin-Quinn scores denote greater conservatism. When the filer is advocating a liberal outcome, *Ideological Alignment* is the Martin-Quinn score of the relevant justice multiplied by -1.

It is important to also account for other variables that may be correlated with both the information provided in the brief and the content of the majority opinion. The total number of briefs available for the Court to consult may decrease the likelihood of using arguments from any particular brief. Whether the brief filer obtained the case outcome they sought will influence the probability that the Court drafts a majority opinion in a manner that is more similar to the brief. *Filer Won* is a dichotomous variable that equals one if the brief filer prevailed on the merits of the case (and zero otherwise).[9]

Various aspects of a case may also play a role in how much the Court relies on the briefs. First, the justices should need information most when confronted with a highly technical issue. In order to capture cases that tend to require specialized knowledge, we coded cases concerning tax, patent, copyright, or bankruptcy law as technical based on the Supreme Court Database issue coding. Cases involving constitutional issues are generally considered to be different than cases that do not based on unique approaches to constitutional interpretation and the difficulty in

---

[8] This approach could be problematic if these two measures were highly collinear, but their correlation is only 0.18. Furthermore, including only one measure or the other does not materially alter our conclusions.

[9] This variable was coded using a combination of the brief type (see Table 1 for the possible categories), which was coded from the text of each brief, and case outcomes obtained from the Supreme Court Database.

overriding such interpretations. Thus, relying again on the Supreme Court Database, we included a variable capturing if constitutional issues were present in the case. Finally, we also controlled for the saliency of the case, as the Court may be more sensitive to public opinion, as communicated through briefs, in salient cases.[10] Finally, in the party briefs model we control for whether a brief is a reply brief. Reply briefs are shorter and play a narrower role that should make them less likely to play a role in the construction of the majority opinion. Table 2 provides summary statistics for all of our variables.

Our outcome variable, similarity between a brief and the majority opinion, is a continuous variable that ranges between zero and one. Although the measure is technically bounded by zero and one, ordinary least squares regression provides very similar estimates to those provided by generalized linear models with a logit link, an approach that would explicitly account for the bounded nature of the outcome (Papke and Wooldridge, 1996). In light of this similarity, we rely on basic regression models. The more pressing concern generated by the structure of our data is that fact that briefs are nested within cases which are, in turn, nested within terms. In order to address this, we estimate multi-level regression models with random effects for term and case.

Results and Discussion

Our objective is straightforward--to build on Spriggs and Wahlbeck (1997)—who showed, contrary to the conventional wisdom among scholars and lawyers, that amicus briefs were less influential when providing novel information--and probe the connection between the novelty of arguments contained in briefs on the merits and Supreme Court case outcomes. Our

---

[10] Salient cases were coded based the Supreme Court Database's variable for coverage in the *New York Times*. Data on which cases involved constitutional issues and which decisions were covered by the *New York Times* were obtained from the Supreme Court Database.

empirical analysis assesses to what extent briefs that provide more novel information have more or less of their information incorporated into the Court's majority opinion. By analyzing Court decisions from a longer time period, 1988-2005, and using tools from computational linguistics to measure our concepts of interest, we offer fresh insight into the influence of briefs on the merits. Our regression results presented in Table 3 provide evidence that the information in briefs can influence how the Court crafts the law, but not all information is equally persuasive.

The Justices require information to make decisions consistent with their legal and ideological goals. Briefs can provide this information and allow the Court to determine which legal rulings will be most likely to effectuate the outcomes they desire. We put forward two hypotheses regarding how the nature of the information contained in a brief affects the likelihood the Court would incorporate it into the majority opinion in a case. First, we hypothesized that briefs that share a larger amount of information with other briefs in a case are more influential. For both party and amicus briefs, our data show that if a brief uses more words or citations that are discussed in other briefs in the case, then the Court is more likely to use information from that brief. These relationships are statistically significant, but their magnitude is somewhat modest. Table 4 provides the size of the expected change in the outcome generated by changing each binary variable form zero to one and each continuous variable from its 25th to 75th percentile value (while holding other variables at their median). The effect is largest for amicus briefs, as we see about a .03 change in the similarity of the language between a brief and the majority opinion when we alter either *Shared Words* or *Shared Citations* from the 25th to 75th percentile. The effect is substantially smaller for party briefs.

We now turn to the rule of novel information, and our second hypothesis that briefs with a greater amount of novel information are actually less influential. Our results ndicate that briefs

that provide a greater amount of unique information are less likely to be persuasive to the Court and that this relationship is particularly notable for amicus briefs. While all four measures of novelty are negative, as predicted, in both the amicus and party models, two of those measures fail to achieve statistical significant in the party model. However, *Overall Novelty of Language* and *Unique Citations* significantly predict a decrease in opinion similarity for both party and amicus briefs. Once again, the overall magnitude of these effects are larger in the amicus model and are quite modest in general. *Overall Novelty of Language* in the amicus model has the largest magnitude with a shift from the 25th to 75th percentile generating an increase of 0.04 in the predicted outcome.

Our final hypothesis is that the ideological alignment between a brief and the Court affects the Court's willingness to borrow language from the brief. However, in the absence of any clear indication of whether the author or Court median's ideology was most theoretically relevant, we include both. The results indicate that the author's ideology is not statistically significant, but the ideology of the Court median justice is significant and in the expected direction. For both party and amicus briefs, we find a .007 increase in the degree of similarity between the brief and the majority opinion when *Ideological Alignment (median)* shifts from its 25th to 75th percentile. This, of course, is a very modest effect size. Yet it is instructive that in both models this modest ideological effect emerges only in relationship to the Court's median, and the author's ideology does not predict how similar the text of a brief is to the opinion drafted by that author.

Finally, we consider the impact of important case and brief characteristics. In considering case characteristics, we do find that the importance of information varies by case type in one important area. Even controlling for ideology and the relative novelty of

information, briefs in technical cases have a larger impact on the decision. Thus, we see evidence that the justices do take advantages of specialized knowledge in crafting policy in technical cases. On the other hand, neither the presence of a constitutional issue nor particularly salient cases result in the justices relying either more or less on the information in briefs. Reply briefs, as expected, are less likely to be similar to the majority opinion. Finally, case outcomes also play the role we anticipate. Briefs on the winning side of the case bear greater similarity to the majority opinion.

In summary, our models provide evidence for each of our three hypotheses and the role of information in technical cases. In addition to our core findings about the impact of shared information, novel information, and ideology, three other interesting patterns emerge from our analysis. These patterns are illustrated in Figures 2-5, which show the predicted similarity between a brief and the majority opinion over the range of a particular variable while holding all other variables constant at their median. The first pattern is that each different metric for type of information has the same direction impact in both party and amicus briefs. In Figures 2 and 3 the slope is negative in both the left and right panels. Similarly, in Figure 4, the slope is positive in both panels. The second pattern is that each type of informational effect appears to have a larger magnitude for amicus briefs. This difference is particularly noticeable for *Unique Citations* and *Shared Citations*. While not a formal statistical test, in Figures 3 and 4 the slope is visibly steeper in the right panel than in the left panel. These patterns, taken together, suggest that while information operates similarly for both party and amicus briefs, the Court may be more sensitive to variation in the type and amount of information provided by amici.

The third pattern of note is that even though the effects of information are modest in an absolute sense, for the most part they dwarf the effects of the Court median's ideology. This

difference is most stark when comparing the effects of *Overall Novelty of Language*, in Figure 2, to the effects of *Ideological Alignment (median)*, in Figure 3. All figures have a y-axis from 0 to 1 (the full range of possible values of *Similarity*) and all have the x-axis set to include all values of the relevant variable that are observed in the data. This facilitates a visual comparison of the respective effect sizes across the entire range of a particular variable. Two briefs at the minimum and maximum values of *Ideological Alignment (median)* do not experience very different predicted outcomes. To the contrary, a brief with a minimum amount of novel language can generate a similarity score of around 0.7 while an otherwise similar brief with language that is very novel compared to the other briefs in the case leads to an expected similarity of less than 0.2. Given the central role of ideology in Supreme Court decision-making, the fact that the impact of novel language dwarfs the impact of ideology in our models highlights the importance of our result.

Conclusion

Using more sophisticated tools applied to a broader set of briefs than in prior research, we find that the role of information from briefs on Supreme Court opinions is both important and nuanced. It is not a simple story of increased information increasing influence, but rather a more complex situation in which the Court's rulings are shaped by information that is communicated to it by a multitude of voices and which is in keeping with the ideological preferences of the Court. Information in briefs at the merit stage, both from parties and amici, is most likely to influence the content of the decision when it is shared by multiple sources. While the Court generally implores amici to add new or unique information, the influence of both parties and amici is diminished by the inclusion of such information. Furthermore, briefs are most likely to

be reflected in the Court's decision when they come from sources whose interests are aligned with the median of the Court. Thus, we find, consistent with ideological and psychological theory regarding the influence of information, that the justices are more likely to integrate information from ideologically friendly sources. This is not to say that specialized knowledge is not being utilized by the Court regardless of ideology: in fact, we find that information in technical cases in more likely to be reflected in the Court's opinions than in other types of cases even where ideological alignment is controlled for. Overall, we find that in this system in which arguments are developed over long periods with well defined facts and evidence, that it is the information that many sources communicate to the Court that is most important.

Our results bolster the claims of previous research (*see* Collins 2004; Collins, Corley, and Hamner 2014; Kearney and Merrill 2000; Spriggs and Wahlbeck 1997; Wofford 2015), while contributing to our overall understanding through the use of new measures and data. Our measures of shared and novel information move beyond assessing the extent to which language has been plagiarized: we exploit sophisticated measures of shared language that capture not just the overlap of words and phrases, but the relative use and importance of language within the filings in a case. Using these measures, we find a consistent inverse relationship between the relative novelty of information and its influence. Additionally, we use these tools to analyze a unique dataset that includes briefs from multiple filer types, sources (both electronic and physical), and years, eliminating the chances that prior findings are the result of artifacts of less complete data.

These results, in conjunction with the literature, speak to important question regarding the operations of the Supreme Court –the justices use information to form policy in ways that look democratic: the information offered up by the many often takes the day. While this may offend

those who are committed to the justices deciding cases in an entirely legalistic way, it will likely provide some comfort those who are concerned about the counter-majoritarian tendencies of the Court. Furthermore, while we see the influence of justice ideology, that a wealth of Political Science information indicates we would expect, we also see that information plays a greater role in shaping decisions than the alignment of such preferences. Thus, it appears that briefs add more than mere window-dressing in terms of the content of opinions, particularly in technical cases. These results in conjunction with the literature raise additional questions that should be addressed in future research. How does the collective information assembled on behalf of each side as a whole influence the Court? Does the influence of unique information vary by filer quality? Are there certain types of sophisticated filers that provide high quality unique information that influences the Court? Therefore, while our study bolsters and furthers our understanding of the role of information in Supreme Court decision-making, it also indicates future areas of inquiry.

Type of Brief	Number of Briefs	% of Total Briefs
Petitioner	1,608	13%
Respondent	1,687	13%
Petitioner Reply	1,555	12%
Amicus for Petitioner	3,823	31%
Amicus for Respondent	3,819	31%
Total	12,492	100%

Table 1: Types of Briefs

	Party Briefs			Amicus Briefs		
	25th %	50th %	75th %	25th %	50th %	75th %
Overall Novelty of Language	0.004	0.005	0.007	0.008	0.009	0.011
Overall Novelty of Citations	0.010	0.015	0.027	0.015	0.026	0.051
Unique Words (in 1,000s)	0.21	0.34	0.53	0.14	0.21	0.30
Unique Citations	3	7	14	1	3	8
Shared Words (in 1,000s)	5.93	9.18	13.18	4.70	6.56	8.15
Shared Citations	13	27	47	8	18	33
Ideological Alignment (author)	-1.42	0.22	1.44	-1.44	-0.17	1.44
Ideological Alignment (median)	-0.71	0.04	0.71	-0.65	-0.04	0.65
Number of Briefs	4	7	11	8	12	19
Similarity to Opinion	0.59	0.69	0.77	0.43	0.56	0.68
	0	**1**		**0**	**1**	
Filer Won	45.8%	54.2%		46.9%	53.1%	
Constitutional	69.7%	30.3%		59.9%	40.1%	
Salient (NYT coverage)	83.2%	16.8%		66.4%	33.6%	
Technical	92.3%	7.7%		91.8%	8.2%	
Reply Brief	67.9%	32.1%		-	-	

Table 2: Summary Statistics

	Party Briefs		Amicus Briefs	
	Coef.	(S.E.)	Coef.	(S.E.)
Overall Novelty of Language	-8.742*	(0.633)	-10.600*	(0.517)
Overall Novelty of Citations	-0.042	(0.028)	-0.063*	(0.013)
Unique Words (in 1,000s)	-0.006	(0.010)	-0.249*	(0.014)
Unique Citations	-0.0004*	(0.000)	-0.002*	(0.000)
Shared Words (in 1,000s)	0.002*	(0.001)	0.010*	(0.001)
Shared Citations	0.0002*	(0.000)	0.001*	(0.000)
Ideological Alignment (author)	0.0004	(0.001)	0.001	(0.001)
Ideological Alignment (median)	0.005*	(0.002)	0.005*	(0.002)
Number of Briefs	-0.0003	(0.001)	-0.003*	(0.001)
Filer Won	0.023*	(0.003)	0.020*	(0.003)
Constitutional	0.002	(0.007)	0.001	(0.008)
Salient (NYT coverage)	0.016	(0.009)	0.010	(0.010)
Technical	0.044*	(0.011)	0.054*	(0.013)
Reply Brief	-0.039*	(0.004)	-	-
Intercept	0.696*	(0.010)	0.663*	(0.012)
Variance Components				
Term-level	0.007*	(0.006)	0.021*	(0.005)
Case-Level	0.109*	(0.002)	0.108*	(0.003)
Brief-Level	0.082*	(0.001)	0.112*	(0.001)
N	4,850		7,642	

Table 3: Brief-Majority Opinion Similarity: Results of multilevel regression models with random effects for term and case. * indicates $p < 0.05$.

	Party Briefs		Amicus Briefs	
	Change	95 % CI	Change	95 % CI
Overall Novelty of Language	**-0.025**	[-0.029, -0.022]	**-0.043**	[-0.047, -0.039]
Overall Novelty of Citations	-0.001	[-0.002, 0.0002]	**-0.002**	[-0.003, -0.001]
Unique Words (in 1,000s)	-0.002	[-0.008, 0.004]	**-0.042**	[-0.046, -0.037]
Unique Citations	**-0.005**	[-0.008, -0.001]	**-0.015**	[-0.018, -0.012]
Shared Words (in 1,000s)	**0.017**	[0.006, 0.028]	**0.035**	[0.027, 0.042]
Shared Citations	**0.006**	[0.0001, 0.011]	**0.034**	[0.029, 0.039]
Ideological Alignment (author)	0.001	[-0.002, 0.005]	0.002	[-0.003, 0.006]
Ideological Alignment (median)	**0.007**	[0.002, 0.012]	**0.007**	[0.001, 0.013]
Number of Briefs	-0.002	[-0.009, 0.006]	**-0.035**	[-0.047, -0.023]
Filer Won	**0.023**	[0.018, 0.028]	**0.020**	[0.014, 0.026]
Constitutional	0.002	[-0.012, 0.016]	0.001	[-0.014, 0.016]
Salient (NYT coverage)	0.016	[-0.002, 0.034]	0.010	[-0.009, 0.029]
Technical	**0.044**	[0.021, 0.066]	**0.054**	[0.027, 0.080]
Reply Brief	**-0.039**	[-0.047, -0.030]	-	-

Table 4: Predicted Change in Outcome: Change in the predicted outcome generated by moving each variable from 0 to 1 or from its 25th percentile value to its 75th percentile value while holding all other variables at their median.

**Figure 1: Similarity Between Language in a Brief and the Majority Opinion**

Similarity Between Each Brief and Majority Opinion

ACLU brief
Mapp v. Ohio
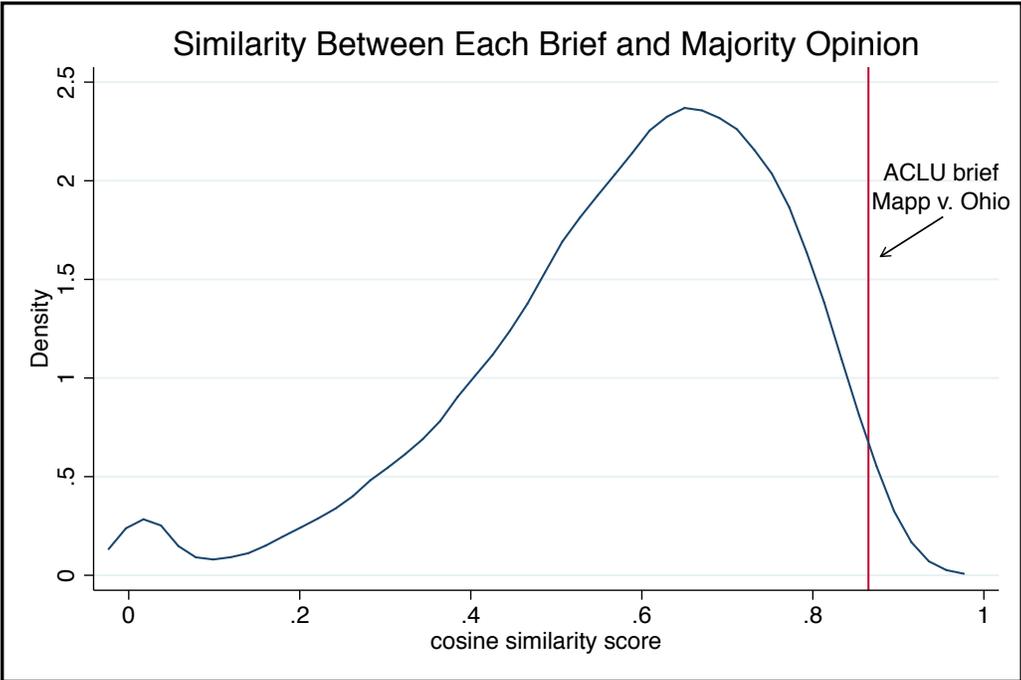
Figure 2: The Effect of *Overall Novelty of Language* on Predicted *Similarity*


Party Briefs

Amicus Briefs
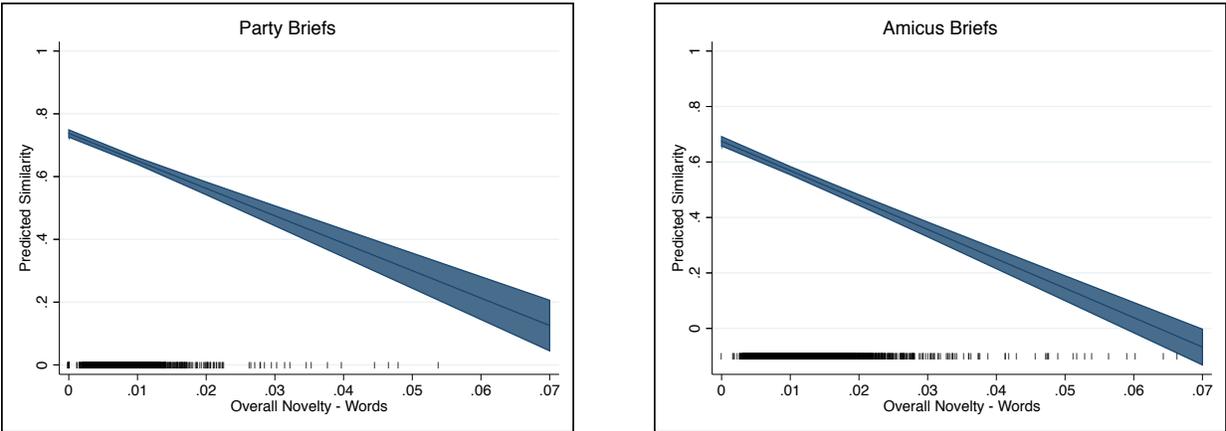
Figure 3: The Effect of *Unique Citations* on Predicted *Similarity*
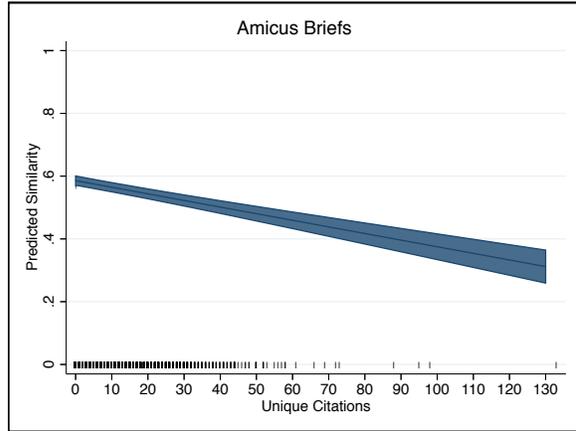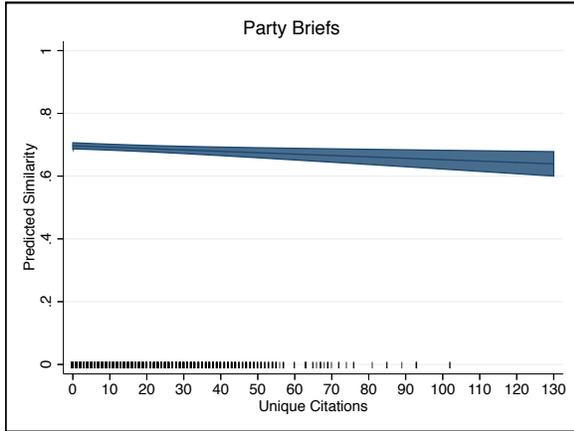
**Figure 4: The Effect of *Shared Citations* on Predicted *Similarity***
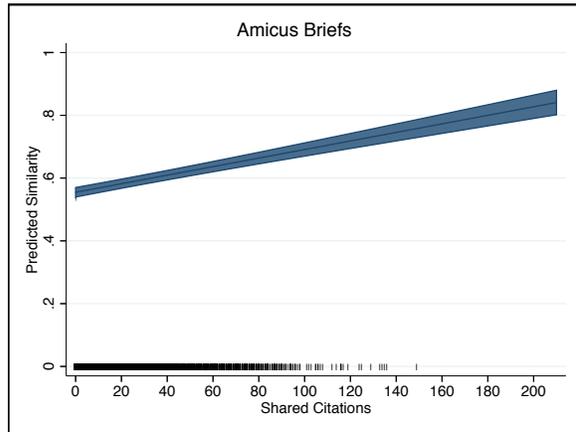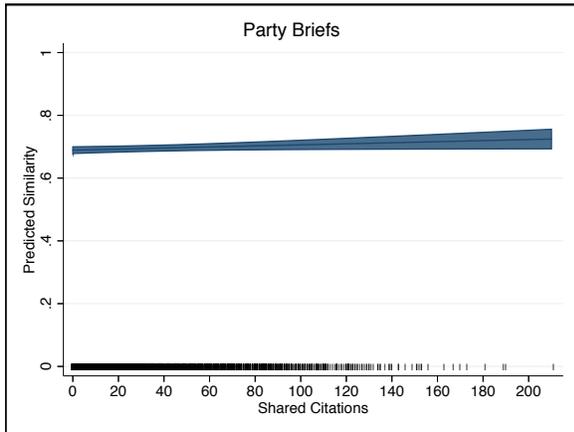
Figure 5: The Effect of *Ideological Alignment (median)* on Predicted *Similarity*
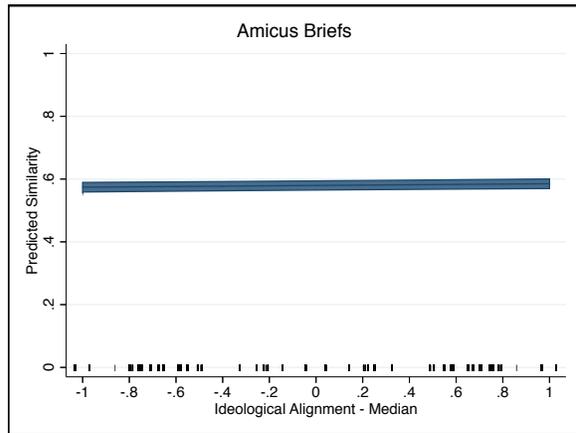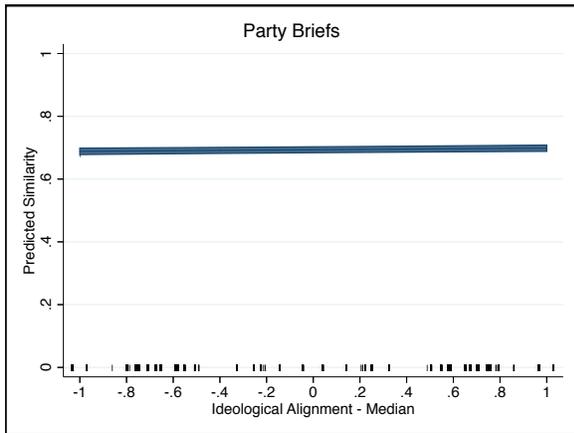
References

Aizawa, Akiko. 2003. "An Information-Theoretic Perspective of TF-IDF Measures." *Information Processing and Management* 39: 45-65.

Aldisert, Rugero J. 1990. "Precedent: What It Is and What It Isn't; When Do We Kiss It and When Do We Kill It?" *Pepperdine Law Review* 17:605-636.

Anderson, Helen A. 2015. "Frenemies of the Court: The Many Faces of Amicus Curiae." *University of Richmond Law Review* 49.

Barker, Lucius J. 1967. "Third Parties in Litigation: A Systematic View of the Judicial Function." *Journal of Politics* 29(1): 41-69.

Bast, C.M. and Samuels, L.B., 2008. "Plagiarism and Legal Scholarship in the Age of Information Sharing: the Need for Intellectual Honesty." *Catholic University Law Review* 57:777.

Beazley, Mary Beth. 2010. *A Practical Guide to Appellate Advocacy.* Aspen Publishers.

Berring, Robert C. 2000. "Legal Information and the Search for Cognitive Authority." *California Law Review* 88(6):1673-1708.

Braman, Eileen. 2009. *Law, Politics, & Perception: How policy preferences influence legal reasoning.* University of Virginia Press.

Braman, Eileen, and Thomas E. Nelson. 2007. "Mechanism of Motivated Reasoning? Analogical Perception in Discrimination Disputes." *American Journal of Political Science* 51(October):940-956.

Breyer, Stephen. 1998. "The Interdependence of Science and Law." *Judicature* 82(1): 24-27.

Box-Steffensmeier, Janet M., Dino P. Christenson and Matthew P. Hitt. 2013. "Quality over Quantity: Amici Influence and Judicial Decision Making." *American Political Science Review* 107(3): 446-460.

Chen, Paul. 2006. "The Information Role of Amici Curiae Briefs in *Gonzales v. Raich*." *Southern Illinois University Law Journal* 31:217.

Clark, Tom S., Jonathan P. Kastellec. 2013. "The Supreme Court and Percolation in the Lower Courts: An Optimal Stopping Model." *The Journal of Politics* 75(1):150-168.

Coleman, Brady and Quy Phung. 2010. "The Language of Supreme Court Briefs A Large-Scale Quantitative Investigation." *The Journal of Appellate Practice and Process* 11(1): 75-103.

Coleman, Brady S., Quy H. Phung, DeAnna Carlson, Shakeb Syed, and Zahra Jivani. 2013. "Grammatical and Structural Choices in Issue Framing: A Quantitative Analysis of Questions Presented from a Half Century of Supreme Court Briefs." *American Journal of Trial Advocacy* 29:327–352.

Collins, Paul M., Jr. 2004. "Friends of the Court: Examining the Influence of Amicus Curiae Participation in U.S. Supreme Court Litigation." *Law & Society Review* 38(4): 807-832.

Collins, Paul M. Jr. 2007. "Lobbyists before the U.S. Supreme Court: Investigating the Influence of Amicus Curiae Briefs." *Political Research Quarterly* 60(1): 55-70.c

Collins, Paul M., Jr. 2008. *Friends of the Supreme Court: Interest Groups and Judicial Decision Making.* New York: Oxford University Press, Inc.

Collins, Paul M., Jr., Pamela C. Corley, and Jesse Hamner. 2014. "Me Too? An Investigation of Repetition in U.S. Supreme Court Amicus Curiae Briefs." *Judicature* 97(5): 228-234.

Collins, Paul M., Jr., Pamela C. Corley, and Jesse Hamner. 2015. "The Influence of Amicus Curiae Briefs on U.S. Supreme Court Opinion Content." *Law & Society Review* 49(4):917-944.

Collins, Paul M., Jr., and Lisa A. Solowiej. 2007. "Interest Group Participation, Competition, and Conflict in the U.S. Supreme Court." Law & Social Inquiry 32(4): 955-984.

Comparato, Scott A. 2003. *Amici Curiae and Strategic Behavior in State Supreme Courts*. Westport, CT: Praeger Publishers.

Corley, Pamela C. 2008. "The Supreme Court and Opinion Content: The Influence of Parties' Briefs." *Political Research Quarterly* 61:468–78.

Epstein, Lee, and Joseph F. Kobylka. 1992. *The Supreme Court and Legal Change: Abortion and the Death Penalty*. Chapel Hill: University of North Carolina Press.

Epstein, Lee, and Jack Knight. 1998. *The Choices Justices Make*. Washington, DC: Congressional Quarterly Press.

Epstein, Lee and Jack Knight. 1999. "Mapping Out the Strategic Terrain: The information Role of *Amici Curiae*," in C. Clayton H. Gillman, eds., *Supreme Court Decision Making: New Institutional Approaches.* Chicago: Chicago Univ. Press.

Ennis, Bruce J. 1984. "Symposium on Supreme Court Advocacy: Effective Amicus Briefs." *Catholic University Law Review* 33: 603-609.

Evans, Michael, Wayne McIntosh, Jimmy Lin, and Cynthia Cates. 2007. "Recounting the courts? Applying automated content analysis to enhance empirical legal research." *Journal of Empirical Legal Studies* 4(4): 1007-1039.

Feldman, Adam. 2015. "A Brief Assessment of Supreme Court Opinion Language." *SSRN Working Paper.*

Feldman, Adam. 2015b. "Blurred Lines: When Merit Briefs are Transformed into Supreme Court Briefs." *SSRN Working Paper.*

Fischer, Judith D. 2009. "Got Issues? An Empirical Study About Framing Them." *Journal of the Association of Legal Writing Directors* 6:1–27.

Fontham, Michael R. 1985. *Written and Oral Advocacy.* John Wiley & Sons.

Furgeson, Joshua R., Linda Babcock, and Peter M. Shane. 2008. "Do a Law's Policy Implications Affect Beliefs about its Constitutionality? An experimental test. *Law and Humann Behavior* 32(3):219–27.

Garner, Brian A. 2001. "Judges on Briefing: A National Survey." *Scribes Journal of Legal Writing* 8: 1-34.

Garner, Brian A. 2003. *The Winning Brief, Second Edition.* Oxford University Press.

Gilligan, Thomas G., and Keith Krehbiel. 1987. "Collective Decisionmaking and Standing Committees: An Informational Rationale for Restrictive Amendment Procedures." *Journal of Law, Economics, and Organization* 3 (Autumn): 287-335.

Goelzhauser, G. and Nicole Vouvalis. 2015. "Amicus Coalition Heterogeneity and Signaling Credibility in Supreme Court Agenda Setting." *Publius: The Journal of Federalism* 45(1): 99-116.

Grimmer, J. and B. Stewart. 2013. "Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Texts." Political Analysis 21(3):1–31.

Guthrie, Chris, Jeffrey J. Rachlinski, and Andrew J. Wistrich. 2000. "Inside the Judicial Mind." *Cornell Law Review* 86: 777-830.

Guthrie, Chris, Jeffrey J. Rachlinski, and Andrew J. Wistrich. 2002. "Judging by Heuristic: Cognitive Illusions in Judicial Decision Making." *Judicature* 86(1): 44-50.

Hansford, Thomas G. 2004. "Information Provision, Organizational Constraints, and the Decision to Submit an Amicus Curiae Brief in a U.S. Supreme Court Case." *Political Research Quarterly* 57(2): 219-230.

Hansford, Thomas G., and Kristen Johnson. 2014. "The Supply of Amicus Curiae Briefs in the Market for Information at the U.S. Supreme Court." *Justice System Journal* 35(4): 362-382.

Hansford, Thomas G., and James F. Spriggs, II. 2006. *The Politics of Precedent on the U.S. Supreme Court.* Princeton University Press.

Hart, William, Dolores Albarracín, Alice H. Eagly, Inge Brechan, Matthew J. Lindberg, and Lisa Merrill. 2009. "Feeling validated versus being correct: a meta-analysis of selective exposure to information." *Psychological Bulletin* 135(4): 555-588.

Hinkle, Rachael K. 2015. "Legal Constraint in the U.S. Courts of Appeals." *Journal of Politics* 77(3): 721-735.

Jia, Lifeng, Clement Yu, and Weiyi Meng. "The Effect of Negation on Sentiment Analysis and Retrieval Effectiveness." In Proceedings of the 18th ACM conference on Information and Knowledge Management, 1827-1830.

Johnson, Timothy R. 2001. "Information, Oral Arguments, and Supreme Court Decision Making." *American Politics Research* 29(4): 331-351.

Johnson, Timothy R., Paul Wahlbeck, and James F. Spriggs, II. 2006. "The Influence of Oral Arguments on the U.S. Supreme Court." *American Political Science Review* 100(1): 99-113.

Kearney, Joseph D., and Thomas W. Merrill. 2000. "The Influence of Amicus Curiae Briefs on the Supreme Court." *University of Pennsylvania Law Review* 148(3): 743-855.

Kim, C., 2014. "Adversarial and Inquisitorial Procedures with Information Acquisition." *Journal of Law, Economics, and Organization* 30(4):767-803.

King, Gary, Robert O. Keohane and Sydney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton University Press.

Kornhauser, Lewis A. 1994. "Adjudication by a Resource-Constrained Team: Hierarchy and Precedent in a Judicial System." Southern California Law Review 68: 1605–1705.

Krehbiel, Keith. 1991. *Information and Legislative Organization*. Ann Arbor, MI: University of Michigan Press.

Krislov, Samuel. 1963. "The Amicus Curiae Brief: From friendship to advocacy." *Yale Law Journal* 72(4): 694-721.

Kunda, Ziva. 1990. "The Case for Motivated Reasoning." *Psychological Bulletin* 108(3): 480-498.

Lamb, Charles. 1976. "Judicial Policy-Making and Information Flow to the Supreme Court." *Vanderbilt Law Review* 29:45.

Larsen, Allison O. 2014. "The Trouble with Amicus Facts." *Virginia Law Review* 100: 1757-1818.

Lowman, Michael K. 1992. "The Litigating Amicus Curiae: When Does the Party Begin After

the Friends Leave?" *American University Law Review* 41:1243.

Lupia, Arthur. 1994. "Shortcuts Versus Encyclopedias: information and voting behavior in California insurance reform elections." *American Political Science Review* 88(1): 63-76.

Lynch, Kelly J. 2004. "Best Friends?: Supreme Court Law Clerks on Effective Amicus Curiae Briefs." *Journal of Law & Politics* 20: 33-68.

Maltzman, Forrest, James F. Spriggs, II, and Paul J. Wahlbeck. 2000. *Crafting Law on the Supreme Court: The Collegial Game*. New York: Cambridge University Press.

Martin, Andrew D. and Kevin M. Quinn. 2002. "Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953-1999." *Political Analysis*. 10:134-153.

Manning, Christopher D., Prabhakar Raghavan, and Hinrich Schütze. 2008. *Introduction to Information Retrieval*. New York: Cambridge University Press.

Marvell, Thomas B. 1978. *Appellate Courts and Lawyers*. Westport, CT: Greenwood Press.

Milgrom, P. and Roberts, J., 1986. "Relying on the Information of Interested Parties." *The RAND Journal of Economics* 18-32.

Miller, Arthur S., and Jerome A. Barron. 1975. "The Supreme Court, the Adversary System, and the Flow of Information to the Justices: A Preliminary Inquiry." *Virginia Law Review* 61(6): 1187-1245.

Morgan, David L. 2014. *Integrating Qualitative & Quantitative Methods*. SAGE.

Owens, Ryan J., and Justin P. Wedeking. 2011. "Justices and Legal Clarity: Analyzing the Complexity of U.S. Supreme Court Opinions." *Law & Society Review* 45(4): 1027-1061.

Papke, Leslie E., and Jeffrey M. Wooldrige. 1996. "Econometric Methods for Fractional Response Variables with an Application to 401(k) Plan Participation Rates." *Journal of Applied Econometrics*, 11(6): 619-632.

Pennebaker, J.W., C.K. Chung, M. Ireland, A. Gonzales and R.J. Booth. 2007. "LIWC 2007 Dictionary Poster. [Software Manual]." Linquistic Inquiry and Word Count, www.liwc.net.

Puro, Steven. 1971. *The Role of Amicus Curiae in the United States Supreme Court: 1920-1966*. Ph.D. Dissertation, State University of New York at Buffalo.

Redding, Richard E., and N. Dickon Reppucci. 1999. "Effects of Lawyers' Socio-political Attitudes on Their Judgments of Social Science in Legal Decision Making." *Law and Human Behavior* 23(1): 31-54.

Redlawsk, David P. 2002 . "Hot Cognition or Cool Consideration? Testing the effects of motivated reasoning on political decision making." *The Journal of Politics* 64(4): 1021-1044.

Rogers, James R. 2001. "Information and Judicial Review: A Signaling Game of Legislative-Judicial Interaction." *American Journal of Political Science* 45(1): 84-99.

Rules of the Supreme Court of the United States. 2013. Legal Information Institute. *www.law.cornell.edu/rules/supct.*

Rustad, Michael, and Thomas Koenig. 1992. "The Supreme Court and Junk Social Science: Selective Distortion in Amicus Briefs." *North Carolina Law Review* 71:91.

Samuels, Suzanne U. 2004. *First among Friends: Interest Groups, the U.S. Supreme Court, and the Right to Privacy*. Westport, CT: Praeger.

Scalia, Antonin, and Bryan A. Garner. 2008. *Making Your Case: the Art of Persuading Judges.* Thomson/West.

Schauer, Frederick. 1995. "Giving Reasons." *Harvard Law Review* 47:633-659.

Schauer, Frederick. 1987. "Precedent." *Stanford Law Review* 39(February):571-605.

Schweitzer, Dan. 2003. "Development and Practice Note: Fundamentals of Preparing a United States Supreme Court Amicus Brief." *Journal of Appellate Practice and Process* 5:523.

Scott, David Hooper. 2013. *Friendly Fire: Amicus Curiae Participation and Impact at the Roberts Court.* Dissertation, University of Tennessee – Knoxville.

Segal, Jeffery A., & Harold J. Spaeth. 2002. *The Supreme Court and the Attitudinal Model Revisited*. Cambridge, UK: Cambridge University Press.

Simpson, Reagan W. 1999. "Special Focus: Fidelity and Surety, How to Be a Good Friend to the Court: Strategic Use of Amicus Briefs." *The Brief* 28:38.

Solowiej, Lisa A., and Paul M. Collins, Jr. 2009. "Counteractive Lobbying in the U.S. Supreme Court." *American Politics Research* 37(4): 670-699.

Sood, Avani M. 2013. "Motivated Cognition in Legal Judgments – An Analytical Review." *Annual Review of Law and Social Science* 9:307-325.

Spellman, Barbara A. 2010. "Judges, Expertise, and Analogy," in David E. Klein, D. E., & George Mitchell, eds., *The Psychology of Judicial Decision Making*. Oxford: Oxford University Press.

Spriggs, James F., II, and Paul Wahlbeck. 1997. "Amicus Curiae and the Role of Information at the Supreme Court." *Political Research Quarterly* 50(2): 365-386.

Stanchi, Kathryn M. 2008. "Playing with Fire: The Science of Confronting Adverse Material in Legal Advocacy." *Rutgers Law Review* 60(2): 381-434.

Steinberg, L. 2013. "The Influence of Neuroscience on US Supreme Court Decisions about Adolescents' Criminal Culpability." *Nature Reviews Neuroscience*, 14(7): 513-518.

Sunstein, Cass R. 1993. "On Analogical Reasoning." *Harvard Law Review* 106(3):741-791.

Taber, Charles S., Damon Cann, and Simona Kucsova. 2009. "The Motivated Processing of Political Arguments." *Political Behavior* 31(2): 137-155.

Taber, Charles S., and Milton Lodge. 2006. "Motivated skepticism in the Evaluation of Political Beliefs." *American Journal of Political Science* 50(3): 755-769.

Walsh, Mark. 2003. "It Was Another Big Term for Amicus Curiae Briefs at the High Court." *ABA Journal Online, http://www.abajournal.com/magazine/article/it_was_another_big_term_ For'amicus_curiae_briefs_at_the_high_court/,* posted September 1, 2003.

Wangerin, Paul T. 1994. "The Political and Economic Roots of the `Adversary System' of Justice and `Alternative Dispute Resolution.'" *The Ohio State Journal on Dispute Resolution* 9(2):203-242.

Wedeking, Justin. 2010. "Supreme Court Litigants and Strategic Framing." *American Journal of Political Science* 54(3):617-631.

Wiegand, Michael, Alexandra Balahur, Benjamin Roth, Dietrich Klakow, and Andrés Montoyo. 2010. "A Survey on the Role of Negation in Sentiment Analysis." *Negation and Speculation in Natural Language Processing* (NeSp-NLP 2010).

Wofford, Claire B. 2015. "Assessing the Anecdotes: Amicus Curiae, Legal Rules, and the U.S. Supreme Court." *Justice Systems Journal.*