

# Judges and Friends: The Influence of Amici Curiae on U.S. Court of Appeals Judges

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## **Abstract**

We contribute to the literature on political psychology, interest groups, and judicial decision making by examining whether ideology mediates the effect of amicus curiae briefs on decision making in the U.S. courts of appeals. Using an original data set, we find evidence that moderate and conservative judges are influenced by amicus briefs, but that liberal judges do not respond to these persuasion attempts. We conclude that this form of interest group lobbying influences judicial decision making by at least some judges and that understanding the efficacy of this interest group strategy requires an appreciation of how political actors process persuasive information.

## **Keywords**

interest groups, judicial decision making, political psychology

“Part of politics is convincing people of what they want” (Brysk, 1995, p. 564). The persuasive power of an argument, however, is contingent on much more than the mere provision of information and evidence. Rhetorical skill matters, too, of course. However, regardless of the substance or the style of a

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political argument, its persuasive value is structured by the cognitive processes of the individual or individuals who are the targets of persuasion (Lodge & Taber, 2005). In other words, human beings have well-established cognitive biases that condition their receptiveness to (and processing of) information and arguments, including those of a political nature (e.g., Koch, 2008; Nelson & Garst, 2005; Taber, Cann, & Kucsova, 2009). It is not merely ordinary citizens who are subject to these cognitive biases. Political elites (Anderson & Harbridge, 2014), including judges (Guthrie, Rachlinski, & Wistrich, 2007), are subject to them as well. With regard to appellate court judges, the most obvious source of (potential or actual) persuasive arguments consists of the briefs filed by the direct litigants in a case. The *amicus curiae* ("friend of the court") brief, however, is another important source of persuasive argumentation. Ostensibly filed to provide neutral expertise and information to the courts by third parties, *amicus curiae* briefs are now without question instruments of advocacy (Krislov, 1963). Although the extant scholarship devoted to *amici* in the courts is capacious, with rare exceptions (e.g., Box-Steffensmeier, Christenson, & Hitt, 2013; Collins, 2008a), it neglects to consider the cognitive processes that are at play in persuasive argumentation. Here, our purpose is to pay explicit attention to those cognitive processes and, especially, to the potential mediating effect of ideology on the persuasiveness of *amicus curiae* briefs. We take the U.S. courts of appeals as our substantive context.<sup>1</sup>

In particular, we consider alternative mechanisms by which *amicus* briefs could persuade judges: motivated reasoning versus heuristic information processing. In both motivated reasoning and heuristic information processing accounts of persuasion, recipients of persuasive messages want to evaluate the validity of those messages (Chaiken, 1980). The difference between the two lies in the mechanism for evaluation (Chen, Duckworth, & Chaiken, 1999). In the context of persuasion by *amici curiae*, the motivated reasoning framework suggests that the effect of *amicus* briefs should be conditional on the ideology of the judges because *amicus curiae* briefs must be evaluated as they relate to the directional goals (read: ideological goals) judges possess. In contrast, heuristic models emphasize the reliance on decision rules (i.e., rules of thumb) that permit individuals to make quick assessments of persuasive argumentation rather than requiring more detailed processing of that argumentation. The heuristic information processing framework, then, suggests that the effect of *amicus* briefs should not be mediated by ideology but, rather, simply reflect the number of briefs in support of each side (which serves as a proxy for the quantity of arguments supporting each side). The analysis presented here offers new evidence as to the relative merits of these two alternative mechanisms for understanding the influence of *amicus* briefs and, in the

process, is intended to advance our understanding of the efficacy of interest groups, the decision dynamic of judges, and, more generally, the process by which information shapes the choices of political actors.

## The Influence of *Amici Curiae*

Amicus briefs play a key informational role in judicial deliberations. Although the briefs of the direct parties are surely an important—perhaps the most important—source of information regarding a case, page limitations restrict the number of arguments the parties can advance in their briefs. Amici, however, can outline supplemental lines of argumentation supporting a particular party (Tigar & Tigar, 1999) and provide unique perspectives on various dimensions of a case (e.g., Collins, 2008a; Spriggs & Wahlbeck, 1997). Furthermore, even when amici reiterate the arguments offered by the parties instead of offering new arguments, their briefs can serve an informational role by enhancing the credibility of those arguments. Although it would stretch the bounds of credulity to suggest that the information provided by amicus curiae briefs is directed at anything other than persuasion, it is information nonetheless. And, although some court of appeals judges have expressed opprobrium regarding the submission of amicus briefs,<sup>2</sup> others see real value in them. For example, in a recent survey of federal court judges, more than half of the court of appeals judges who responded indicated that they had actively sought the assistance of amici, while sizable majorities felt that amici may be helpful if they provide novel legal arguments (78.9%) or discuss the broader policy ramifications of a case (73.7%; Simard, 2008). Justice Samuel Alito, writing when he sat on the court of appeals bench, offered his own assessment of the utility of amicus briefs:

The fundamental assumption of our adversary system [is] that strong (but fair) advocacy on behalf of opposing views promotes sound decision making. Thus, an amicus who makes a strong but responsible presentation in support of a party can truly serve as the court's friend.<sup>3</sup>

The bulk of the political science literature devoted to amicus curiae briefs is directed at better understanding the success and failure of amici in achieving their preferred outcomes (e.g., Kearney & Merrill, 2000; Songer & Sheehan, 1993). This is a sensible focus for two reasons. First, courts (and the political systems of which they are a part) are key to “the authoritative allocation of values” (Easton, 1953, p. 129). That “allocation” virtually necessitates that some parties win whereas others lose. And there *are* winners and losers in appellate court cases.<sup>4</sup> Second, the extent to which interest

groups—through the *amicus curiae* briefs they file—are able to influence outcomes in the courts has implications for understanding the permeability of the courts to elite versus plural interests (Collins & Solowiej, 2007) and democratic influences more generally (Box-Steffensmeier, Christenson, & Hitt, 2013; Collins, 2008a).

Although the substantive focus on the efficacy of *amici curiae* in securing their preferred outcomes is understandable, the absence of attention paid to the mechanism by which *amici* may persuade judges to render favorable decisions is unfortunate. It is unfortunate because it means that although we can document any empirical regularity (i.e., the extent to which *amici* are successful or not), an explanation for that empirical regularity eludes us. There is, however, a rich literature in psychology devoted to persuasion that can be of use in this regard.<sup>5</sup> Models of persuasion generally fall into one of two types: systematic information processing or heuristic information processing.<sup>6</sup> Models of persuasion that rely on systematic information processing see the targets of persuasion as active participants in the receipt and processing of messages. Building directly on the pioneering work of Hovland (e.g., Hovland, Janis, & Kelley, 1953), such models assume

that recipients of persuasive messages engage in a considerable amount of information processing in deciding whether to accept a message's overall position; that is, people are often assumed to attend to, comprehend, and cognitively elaborate upon persuasive argumentation, and to think in some depth about the issue discussed in the persuasive message. (Chaiken, 1987, p. 3)

Models of persuasion of this type comport with idealized notions of the democratic citizen who carefully assesses candidates, parties, and policies when casting a vote. As described by Campbell, Converse, Miller, and Stokes (1960), this archetypal citizen is said to be “attentive to politics, concerned with the course of government, [and one] who weighs the rival appeals of a campaign and reaches a judgment that is unswayed by partisan prejudice” (p. 143).

A prominent variant of the systematic information processing framework is the motivated reasoning model in which individuals' reasoning processes are affected by their directional goals (Kunda, 1990).<sup>7</sup> Those directional goals influence which beliefs and rules are accessed and relied on in the processing of information, with those that support the desired outcome constituting the ones that are utilized. As a consequence, people generally arrive at the conclusions at which they wish to arrive.<sup>8</sup> This does not mean that people are entirely unconstrained in the conclusions they draw; as Kunda (1990) notes, people still feel compelled “to construct a justification of their conclusion

that would persuade a dispassionate observer” (pp. 482-483). Furthermore, those engaging in motivated reasoning may well believe they are being objective because they do not realize the effect of their directional goals on their reasoning processes (Lodge & Taber, 2000).

The heuristic information processing model (Chaiken, 1980, 1987), in contrast, conceptualizes individuals as being cognitive slackers (or misers) when it comes to evaluating the validity of a persuasive message:

According to the [heuristic persuasion] model, people exert little cognitive effort in judging the validity of a persuasive message and, instead, may base their agreement with a message on a rather superficial assessment of a variety of extrinsic persuasion cues such as surface or structural characteristics of the message itself (e.g., its length or *number of arguments*), communicator characteristics (e.g., expertise, likeability, physical attractiveness), and audience characteristics (e.g., positive or negative audience reactions to the message). (Chaiken, 1987, p. 3, emphasis added)

Heuristic models are consistent with explanations of vote choice that focus on information shortcuts voters use, such as party identification (e.g., Campbell et al., 1960), rather than with idealized versions of homo politicus.<sup>9</sup>

In an ideal world, we would use an experimental research design to investigate how court of appeals judges process the information contained in amicus curiae briefs. However, because judges are rarely willing to participate in such experiments (e.g., Bartels, 2012), we are required to utilize observational data. Although this limits our ability to assess exactly how judges cognitively process amicus briefs, we can nonetheless test the empirical implications of the motivated reasoning and heuristic processing theories. Crucially, these theories give rise to different behavioral expectations, thus enabling us to determine which perspective best accounts for how court of appeals judges respond to amicus briefs.

In the motivated reasoning account, amicus curiae briefs must be evaluated as they relate to the directional goals (read: ideological goals) judges possess. Given this, the expectation is that an increasing number of amicus briefs that mesh with a judge’s ideology will enhance the extent to which that judge relies on his or her ideology in voting (e.g., Collins, 2008a). Such is the case because ideologically congruent amicus briefs are expected to prompt judges to develop thoughts, consciously or not, favorable to their ideological orientations. Moreover, in engaging in this type of motivated reasoning, the expectation is that judges will accept persuasion that is consistent with their preferences as valid, while discounting or altogether ignoring persuasion inconsistent with their preferences. Thus, as an empirical implication of the

motivated reasoning hypothesis, conservative (liberal) judges will vote more conservatively (liberally) given an increasing number of conservative (liberal) amicus briefs. Conversely, conservative (liberal) judges should not respond to liberal (conservative) amicus briefs, because the motivated reasoning perspective suggests that they will view counter-attitudinal persuasion as weak or inapplicable (e.g., Lord, Ross, & Lepper, 1979; Redlawsk, 2002).<sup>10</sup>

In contrast, under the heuristic processing model, amicus briefs serve to strengthen the validity of a particular line of argumentation. From this perspective, a judge considers the arguments in the amicus briefs on the basis of the quantity of arguments supporting a particular position, without regard to whether those arguments necessarily align with the judge's ideological preferences. In this way, a position becomes increasingly attractive to a judge as the judge learns that there are myriad arguments in support of it.<sup>11</sup> Relying on this more-is-better heuristic, a judge should thus be more likely to view the position supported by an increasing number of amicus briefs as especially credible (because more amicus briefs mean more arguments), irrespective of the congruence of the arguments with the judge's ideological preferences. For example, compared with a situation in which one amicus brief is filed in support of the conservative position, in a situation in which five amicus briefs advocate for the conservative position, a judge should be more likely to cast a conservative vote.<sup>12</sup>

There is substantial evidence that decision makers use the more-is-better heuristic, ranging from investigations of the U.S. Supreme Court (e.g., Caldeira & Wright, 1988) to the analysis of jury trials (e.g., Calder, Insko, & Yandell, 1974) to the study of everyday citizens (e.g., Chaiken, 1980). Applying these findings to interest groups in the courts of appeals, the heuristic processing model suggests that ideology will not mediate the influence of amicus curiae briefs. Rather, it should be a matter of the number of arguments supporting a particular position (represented by the number of amicus curiae briefs) that influences judicial choice. This is not to say that there is no substantive content to the amicus briefs. Rather, the proposition is simply that, regardless of the substantive content, what matters is the volume of briefs, *ceteris paribus*, if the heuristic processing model best captures their persuasiveness. In short, as an empirical implication of the heuristic processing model, when an increasing number of conservative (liberal) amicus briefs are present in a case, the expectation is that the likelihood that a judge will cast a conservative (liberal) vote will increase, regardless of the judge's ideology.

## Data and Method

To determine whether and, more importantly, how amicus curiae briefs influence the decision making of court of appeals judges, we began with data from

Kuersten and Haire's (2007) *Update to the Appeals Court Data Base (1997-2002)*, coupled with original data on amicus curiae briefs collected specifically for this project. The Kuersten and Haire database contains a wealth of information on a random sample of 30 published<sup>13</sup> court of appeals cases per year for each of the courts of appeals, excluding the Federal Circuit.<sup>14</sup> Because we are interested in examining whether amicus briefs shape decision making at the individual level (Giles & Zorn, 2000), we transformed this database such that the judge-vote is the unit of analysis, using code developed by Collins (2008b). As a practical matter, this usually meant that each case in the Kuersten and Haire database resulted in three observations: one for each of the judges participating in the three-judge panel that is the standard decision making mechanism used in the courts of appeals. We excluded the 1.4% of the observations from the Kuersten and Haire database that corresponded to en banc decisions due to their unique decision-making dynamics (George, 1999).<sup>15</sup>

The dependent variable in our analyses is the ideological direction of the individual judge's vote, coded 0 for a liberal vote and 1 for a conservative vote.<sup>16</sup> For cases involving civil rights or civil liberties, liberal votes support the litigant alleging a violation of his or her rights or liberties, whereas a conservative vote is the opposite thereof. So, for example, in criminal cases, liberal votes favor the criminally accused (or criminally convicted), whereas conservative votes support the government. In economic cases, liberal votes are, for example, pro-employee, whereas conservative votes are pro-employer. Given the dichotomous nature of the dependent variable, we use a probit model to estimate influences on court of appeals decision making (Aldrich & Nelson, 1984). To control for the fact that judges appear in the data more than once, we estimate the model using robust standard errors, clustered on judge (e.g., Giles & Zorn, 2000).<sup>17</sup> We use the weights reported in Kuersten and Haire (2007) to account for the sampling composition of the data.

To obtain information on amicus curiae participation in the courts of appeals, we began by locating each case in the Kuersten and Haire database identified as including amicus participation. We then used Westlaw and Public Access to Court Electronic Records (PACER) to collect information on the positions taken in the amicus briefs.<sup>18</sup> We operationalize our key independent variables following standard practice in the Supreme Court literature (e.g., Bailey, Kamoie, & Maltzman, 2005). If the lower court rendered a liberal (conservative) decision, and the amicus brief supports the appellant in the court of appeals, that brief is coded as advocating for a conservative (liberal) outcome. If the lower court rendered a liberal (conservative) decision, and the amicus brief supports the appellee in the court of appeals, that brief is

coded as supporting a liberal (conservative) outcome.<sup>19</sup> Thus, the ideological nature of the amicus briefs is coded on the exact same dimension as the ideological direction of the individual judges' votes. *Liberal Amicus Briefs* represents the number of amicus briefs advocating for the liberal position, whereas *Conservative Amicus Briefs* indicates the number of amicus briefs supporting the conservative position.<sup>20</sup> In the cases under analysis here, amicus briefs were filed in 6.6% of the disputes.<sup>21</sup> For cases with amicus briefs, there is an average of one amicus brief supporting both the liberal and conservative positions (*Liberal Amicus Briefs* range = 0 to 14, *Conservative Amicus Briefs* range = 0 to 7). In the data as a whole, the mean value of *Liberal Amicus Briefs* is 0.06 (standard deviation = 0.439), whereas the mean value of *Conservative Amicus Briefs* is 0.05 (standard deviation = 0.337). The amicus briefs under analysis were filed by a diverse assortment of entities, including peak associations, public advocacy organizations, public interest law firms, corporations, and governments (see Collins & Martinek, 2010b).

To capture individual attitudinal influences on decision making in the courts of appeals—a well-established influence on judicial choice (e.g., Hettinger, Lindquist, & Martinek, 2006)—we include an *Ideology* variable based on the Giles, Hettinger, and Peppers (2001) scores,<sup>22</sup> which account for the role of senatorial courtesy in the selection of court of appeals judges and designated district court judges serving temporarily on court of appeals panels. When both of the home state senators are members of the nominating president's political party, the judge is assigned the mean of those senators' Common Space scores (Poole, 1998). When only one of the home state senators is a member of the president's party, the judge is assigned that senator's Common Space score. When neither of the home state senators are a member of the president's party, the judge takes on the nominating president's Common Space score. Because higher values indicate more conservative ideologies, we expect this variable will be positively signed; that is, the more conservative the judge, the greater the likelihood of a conservative vote by that judge.

To determine whether a judge's ideology mediates the influence of amicus briefs, we include two interaction terms in the model: *Liberal Amicus Briefs* × *Ideology* and *Conservative Amicus Briefs* × *Ideology* (e.g., Box-Steffensmeier, Christenson, & Hitt, 2013; Collins, 2008a; see also Braman, 2009). Note that we cannot infer from the direction or statistical significance of the corresponding parameter coefficients alone whether ideology conditions the influence of amicus briefs (Ai & Norton, 2003; Brambor, Clark, & Golder, 2006). With a standard linear-additive model, the parameter estimates and associated standard errors are typically that in which we are most interested because they summarize what we know about the marginal effect

of each independent variable on the dependent variable. That is not the case, however, with a multiplicative interaction model. Of course, we still wish to know the marginal effect of a given independent variable (in our case, the number of amicus curiae briefs) on the dependent variable (in our case, the ideological vote choice of the judge). However, the reported parameter estimate in an interactive model is only the marginal effect when the conditioning variable (in our case, judge ideology) is equal to zero and likewise for the standard error associated with this parameter estimate. Furthermore,

[t]he analyst cannot even infer whether X has a meaningful conditional effect on Y from the magnitude and significance of the coefficient on the interaction terms either . . . [I]t is perfectly possible for the marginal effect of X on Y to be significant for substantively relevant values of the modifying variable Z even if the coefficient on the interaction terms is insignificant. (Brambor, Clark, and Golder, 2006, p. 73)

Accordingly, we have no expectations as to either the direction or significance of either. Subsequently, however, we use the technique developed by Brambor and his colleagues (2006) to substantively evaluate the interactive terms.

Judging in the court of appeals is a context-specific activity in that an individual judge's decision is nested within a panel. Because court of appeals "decisions are a function of *who* decisionmakers are and *with whom* decisionmakers make their decisions" (Collins & Martinek, 2011, p. 178), it is important to take into account the ability of a judge's fellow panel members to influence his or her voting behavior. To do so, we include a *Panel Ideology* variable. This variable represents the average ideology of the other two members of the panel, based on the Giles-Hettinger-Peppers scores (2001). As higher values reflect more conservative panel mates, we expect this variable will be positively signed (indicating a greater likelihood of a conservative vote).

We are also cognizant of the need to capture the ability of the circuit as a whole (via en banc review) and the Supreme Court to shape decision making on three-judge panels (e.g., Haire, Lindquist, & Songer, 2003). Although en banc review is reserved for a small set of select cases in any given circuit in any given year, it is a powerful tool for circuits to "correct errant panels" (Giles, Walker, & Zorn, 2006, p. 864). Moreover, although the circuits vary on a number of dimensions (including size, geographic spread, formal circuit rules, and informal circuit norms), they are all subordinate to the Supreme Court in the judicial hierarchy. The Court may provide full review to only a 100 (or fewer) appeals each year but the evidence with regard to the certiorari

calculus makes clear that the Court's strategic ability to monitor (and correct) wayward lower courts is non-trivial (see, for example, Cameron, Segal, & Songer, 2000). Accordingly, we include *Circuit Ideology* and *Supreme Court Ideology* variables. The *Circuit Ideology* variable is measured as the Giles-Hettinger-Peppers score for the median member of the circuit. The *Supreme Court Ideology* variable is measured as the Judicial Common Space score of the median justice on the Supreme Court.<sup>23</sup> Because higher scores indicate more conservative circuits and Supreme Courts, respectively, we expect these variables will be positively signed.

The nature of the litigants (and the resources they can bring to bear) must also be taken into account. No matter how contrary to ideals of neutral justice, the evidence remains that resources matter for understanding court outcomes (Collins, 2008a; Collins & Martinek, 2010a; Galanter, 1974). To provide a proxy for each litigant's level of perceived resources (e.g., Songer, Sheehan, & Haire, 1999), we include two variables in the model: *Liberal Litigant Resources* and *Conservative Litigant Resources*. These variables are scored such that individuals = 1, businesses and interest groups = 2, local governments = 3, state governments = 4, and the federal government = 5. Litigants listed as "other" in the Kuersten and Haire database were assigned the mean resource score for liberal or conservative parties, depending on whether the "other" litigant was seeking a liberal or conservative outcome. We expect that the *Liberal Litigant Resources* variable will be negatively signed, whereas the *Conservative Litigant Resources* variable will be positively signed.<sup>24</sup>

Finally, we include two variables to capture the fact that court of appeals panels overwhelmingly affirm lower court decisions, particularly in criminal cases (e.g., Hettinger, Lindquist, and Maritnek, 2006; Howard, 1981).<sup>25</sup> The general propensity of the courts of appeals to affirm lower court decisions stems in large part from their lack of agenda control. "[T]heir mandatory docket eviscerates the ability of the courts of appeals to weed out nonmeritorious appeals . . ." (Martinek, 2006, p. 811), making the most likely decision one that concurs with the lower court. This is exacerbated in criminal cases because criminal litigants who do not prevail initially have little to lose by appealing even exceedingly weak cases. Accordingly, *Lower Court Direction* is scored 1 if the lower court rendered a conservative decision and 0 if it handed down a liberal decision.<sup>26</sup> And, *Criminal Case* is coded 1 for criminal cases and 0 otherwise. This allows us to account for the expectation that the courts of appeals are especially likely to affirm criminal convictions, which, given the coding of our dependent variable, result in conservative votes. We expect these variables will be positively signed.<sup>27</sup>

**Table 1.** The Influence of Amicus Curiae Briefs on Decision Making in the Courts of Appeals, 1997-2002.

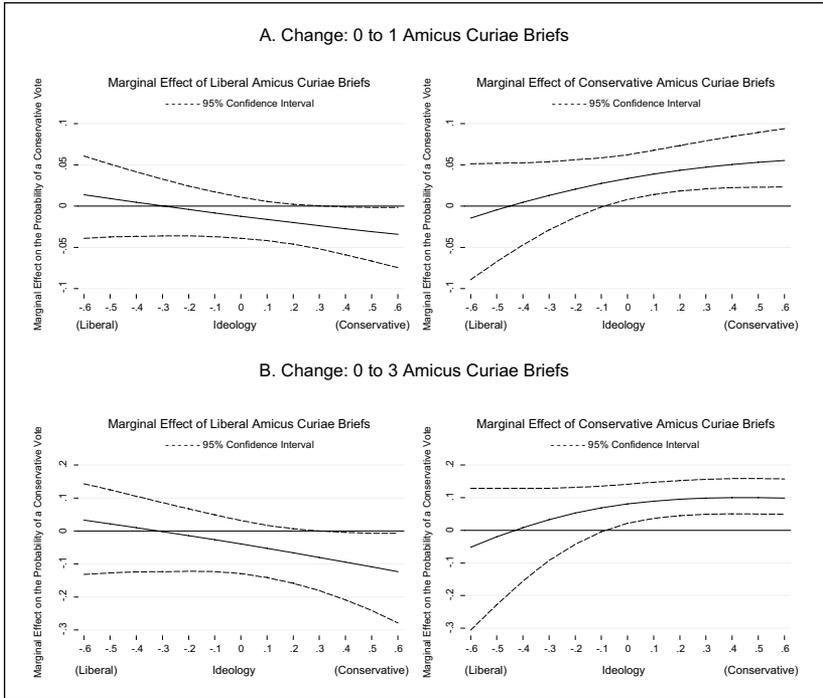
Predictor	Parameter estimate	95% confidence Interval	Marginal effect
Liberal amicus briefs	-.056 (.051)	[-0.155, 0.043]	-1.2
Conservative amicus briefs	.174 (.063)**	[0.050, 0.298]	+3.3**
Ideology	.257 (.071)***	[0.117, 0.397]	+9.4***
Liberal amicus briefs × Ideology	-.185 (.122)	[-0.423, 0.054]	See Figure 1
Conservative amicus briefs × Ideology	.351 (.175)*	[0.007, 0.694]	See Figure 1
Panel ideology	.274 (.076)***	[0.126, 0.423]	+2.7***
Circuit ideology	.354 (.103)**	[0.152, 0.557]	+3.1**
Supreme Court ideology	.528 (.445)	[-0.344, 1.400]	+0.9
Liberal litigant resources	-.041 (.019)*	[-0.078, -0.003]	-1.9*
Conservative litigant resources	.066 (.020)**	[0.027, 0.104]	+3.5**
Lower court direction	.392 (.055)***	[0.286, 0.499]	+15.2***
Criminal case	.389 (.053)***	[0.284, 0.493]	+12.8***
Constant	-.242 (.092)**	[-0.423, -0.062]	
N	5,570		
Wald $\chi^2$	371.46***		
Percent correctly predicted	67.94		
Percent reduction in error	9.1		
Receiver operating characteristic	0.689		

Note. The dependent variable is the ideological direction of the individual judge's vote (1 = conservative, 0 = liberal). Entries are parameter estimates from a probit model. Numbers in parentheses indicate robust standard errors, clustered on judge. Marginal effects were calculated altering the variables of interest from 0 to 1 for dichotomous variables, from the mean to one standard deviation above the mean for continuous variables, and from 0 to 1 for the amicus briefs variables, holding all other variables constant at their mean or modal values.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$  (two-tailed tests).

## Results

Table 1 reports the results of our probit model of influences on the voting behavior of court of appeals judges. The model correctly predicts 68% of votes, for a percent reduction in error of 9%. Turning first to the influence of amicus briefs on decision making in the courts of appeals, Table 1 reports the impact of amicus briefs for a judge whose ideology is at 0 (i.e., a moderate judge). Such a judge is 3% more likely to cast a conservative vote as the number of conservative amicus briefs increases from 0 to 1. However, that judge does not respond to the influence of liberal amicus briefs. Although somewhat useful, Table 1 is very limited in that it does not offer insights into the influence of amicus briefs for judges of varying ideologies. This is



**Figure 1.** The marginal effect of liberal and conservative amicus curiae briefs on the probability of a conservative vote.

*Note.* Marginal effects were calculated varying the *Liberal Amicus Briefs* variable (left graphs) and the *Conservative Amicus Briefs* variable (right graphs), holding all other variables at their mean or modal values, as appropriate.

particularly important information in that no judges in the data have ideology scores equal to 0. Because, as noted earlier, we cannot infer from the sign or significance levels of the parameter estimates of the interaction terms whether ideology mediates the influence of amicus briefs, we graphically illustrate the marginal effect of liberal and conservative amicus briefs across the range of judge ideology in Figure 1.

The solid line in each figure represents the marginal effect of liberal and conservative amicus briefs on the probability of a judge casting a conservative vote as a judge becomes more conservative, holding all other variables at their mean or modal values. The dashed lines indicate 95% confidence intervals for these predictions. The effect of amicus briefs is statistically significant whenever the upper *and* lower bounds of the confidence intervals

(represented by the dashed lines) are *both* above (or below) 0. The upper figures report the marginal effect of a 0 to 1 change in liberal (left graph) and conservative (right graph) amicus briefs, whereas the bottom figures denote the marginal effect of a 0 to 3 change in liberal (left graph) and conservative (right graph) amicus briefs.

The upper left graph indicates that a change from 0 to 1 in the number of liberal amicus briefs influences judges to vote more liberally, but only for judges whose ideologies exceed 0.3. This corresponds to the 35% of judges under analysis whose ideologies range from 0.3 (*moderately conservative*) to 0.66 (*very conservative*). For these judges, an increase from 0 to 1 in the number of liberal briefs increases the chances they will cast a liberal vote by about 3%. The bottom left graph reports a change from 0 to 3 liberal amicus briefs. As before, liberal amicus briefs only influence judges whose ideologies range from 0.3 to 0.66. For these judges, a 0 to 3 increase in liberal amicus briefs enhances their chances of voting liberally by 8% (*Ideology* = 0.3), 10% (*Ideology* = 0.4), 11% (*Ideology* = 0.5), and 12% (*Ideology* = 0.6). Although it is rare for the conservative to liberal amicus differential to equal 0 to 3, our finding that liberal amicus briefs only influence judges whose ideologies are greater than 0.3 is robust to a variety of scenarios, such as those in which the amicus differential is 1 to 2, 1 to 3, and 2 to 3. Thus, liberal amicus briefs only shape the decision making of moderately conservative and very conservative judges, with very conservative judges more sensitive to the impact of liberal amicus briefs.

The upper right graph plots the influence of a change from 0 to 1 in the number of conservative amicus briefs across the range of judicial ideology. An increase in the number of conservative amicus briefs results in more conservative voting behavior for those judges whose ideologies range from -0.1 (*moderately liberal*) to 0.66 (*very conservative*). These judges comprise 60% of the observations under analysis. For moderate judges, whose ideologies range from -0.1 to 0.1, a 0 to 1 increase in conservative amicus briefs enhances the likelihood they will cast a conservative vote by about 3%. More conservative judges, whose ideologies are above 0.3, are about 5% more likely to cast a conservative vote in this situation. The bottom right graph reports the influence of a 0 to 3 increase in conservative briefs. Again, only judges whose ideologies range from -0.1 to 0.66 are influenced by conservative amicus briefs. For these judges, a change from 0 to 3 in the number of conservative amicus briefs enhances their chances of voting conservatively by 7% (*Ideology* = -0.1), 8% (*Ideology* = 0), 9% (*Ideology* = 0.1), and 10% (*Ideology* > 0.2). In sum, although we find that more judges are susceptible to the persuasion contained in conservative amicus briefs as compared with liberal amicus briefs, very liberal judges are responsive to neither liberal nor

conservative amicus briefs.<sup>28</sup> Importantly, these findings are not an artifact of the data under analysis. The median value of the *Ideology* variable is 0.016 with a skewness of  $-0.042$ , indicating that this variable is approximately symmetric. Consequently, we are confident that our findings are not a function of an overabundance of conservative or liberal jurists in the sample. In addition, there are no statistically significant differences in the mean ideology of judges depending on the presence or absence of amicus curiae briefs or the ideological distribution of the amicus briefs.<sup>29</sup>

Turning now to the control variables, the model provides support for the influence of all of the hypothesized influences on judicial choice, save one. With regard to attitudinal factors, we find that a judge's ideology shapes his or her decision making. In cases without amicus briefs (i.e., when the interaction terms are set at 0), a one-standard-deviation increase in a judge's ideology, making the judge more conservative, evinces a 9% increase in the probability of a conservative vote. In addition, the ideology of a judge's fellow panelists shapes that judge's voting behavior. A one-standard-deviation increase in the ideology of the panelists serving with a judge increases the chances that the judge will cast a conservative vote by 3%.<sup>30</sup> We also find that court of appeals judges respond to the ideology of the circuit as a whole. A one-standard-deviation increase in circuit ideology corresponds to a 3% increase in the probability that a judge will cast a conservative vote. However, the model fails to provide evidence that court of appeals judges respond to ideological constraints from the Supreme Court. Thus, although judges do temper their voting behavior depending on the ideological orientation of the circuit, suggesting they are cognizant of the possibility of en banc reversal, they do not appear to respond to the ideological proclivities of the Supreme Court.

The model also indicates that the litigants' perceived level of resources shapes decision making on court of appeals panels. For example, compared with an individual, when a state government argues the liberal position, a judge is 4% more likely to cast a liberal vote. Conversely, relative to an individual, when a state government advances the conservative position, the probability that a judge will cast a conservative vote increases by 7%. Table 1 also highlights the reality that court of appeals judges overwhelmingly affirm district court decisions, particularly in criminal cases. Compared with a case in which the lower court rendered a liberal decision, when the lower court hands down a conservative decision, a judge is 15% more likely to cast a conservative vote. This provides evidence that, all else equal, a judge is more likely to cast a conservative (liberal) vote if the lower court rendered a conservative (liberal) decision.<sup>31</sup> In addition, relative to other issue areas, when the case involves a criminal appeal, a judge is 13% more likely to cast a conservative vote.<sup>32</sup>

## Discussion

Considered in light of our psychological framework, the results that we report regarding the mediating effect of ideology on the influence of amici suggest that court of appeals judges do not engage in motivated reasoning with regard to the persuasion presented in amicus curiae briefs. If this were the case, we would have expected to see liberal briefs influence liberal judges to vote more liberally (but have no effect on conservative judges) and conservative briefs influence conservative judges to vote more conservatively (but have no effect on liberal judges). Instead, we find that conservative judges are susceptible to persuasion by both liberal and conservative briefs whereas liberal judges respond to neither liberal nor conservative amicus briefs. Given this, conservative judges' reactions to amicus briefs are more consistent with a heuristic persuasion framework (e.g., Chaiken, 1980, 1987) in which a decision maker's attitude does not condition how he or she responds to persuasive communication.

The lack of influence (neither directly nor as mediated via ideology) for liberal judges indicates that neither motivated reasoning nor heuristic processing is an apt explanation for liberal judges behavior vis-à-vis amicus curiae briefs. Accordingly, what we have unearthed is evidence of a dichotomy regarding how judges with different ideological orientations approach interest group persuasion in the form of amicus briefs (e.g., Tetlock, Bernzweig, & Gallant, 1985).<sup>33</sup> There are two likely explanations for our finding regarding liberal judges. First, liberal judges may simply not respond to amicus briefs at all, suggesting they do not value the information provided by amici. Second, liberal judges may engage in a more cognitively complex processing of information in amicus briefs, responding not to the sheer quantity of amicus briefs, but instead to other aspects of the briefs that were not captured in the current analysis, such as the quality of their argumentation or the identity of the amicus filers. Indeed, this latter perspective is supported by a recent study of amicus influence in the U.S. Supreme Court. In that analysis, Box-Steffensmeier and her colleagues' (2013) results lead them to suggest "perhaps liberal justices respond to amici arguments based on their perception of the amici's expertise and credibility, while conservative judges use a simpler heuristic" (p. 459).<sup>34</sup>

Moreover, although this finding is novel in the context of court of appeals decision making, it is quite consistent with a wealth of scholarship that demonstrates sometimes sharp differences between liberals and conservatives in their cognitive processes. In particular, the evidence suggests that conservatives tend to engage in less cognitively complex reasoning than liberals, among both the general public and political elites (e.g., Jost, Glaser,

Kruglanski, & Sulloway, 2003; Miller, Krochik, & Jost, 2010; Tetlock, 1983; Tetlock, Bernzweig, & Gallant, 1985; but see Gruenfeld, 1995).<sup>35</sup> The theoretical explanation for these differences rests on viewing conservatism as a motivated social cognition, an aspect of which heightens the need for closure: the psychological desire to find quick and decisive answers to pressing questions, such as legal controversies. Inasmuch as conservatives view closure as more important than liberals, this leads them to rely on decision-making shortcuts more often than their liberal counterparts. For example, in a meta-analysis of 88 studies spanning 12 countries, Jost et al. (2003) find that conservatives rate higher than liberals on the need for closure and lower than liberals on integrative complexity. Furthermore, Miller, Krochik, and Jost (2010) provide evidence across two experiments that conservatives and liberals process persuasive information differently, with conservatives using a heuristic information processing style. Among elite decision makers, Tetlock (1983) demonstrates that conservative legislators in the U.S. Senate engage in less integratively complex speechmaking than their liberal counterparts. What is more, Tetlock and his colleagues (1985) find that conservative U.S. Supreme Court justices exhibit less integrative complexity in their opinions than moderate and liberal justices, suggesting that conservative judges “tend to rely on rigid, one-dimensional, evaluative rules in interpreting events, and to make decisions on the basis of only a few salient items of information” (p. 1228). Such a finding has clear application to the current study. That is, if conservative judges tend to rely on simpler (or, perhaps, more readily accessible) evaluative criteria than liberal judges, we would expect the number of amicus briefs to influence their decision making as the-more-arguments-the-better heuristic is perhaps the simplest reasonable heuristic available (e.g., Petty & Cacioppo, 1984).<sup>36</sup>

The reported difference between how conservative and liberal judges cognitively process heuristics regarding amicus briefs does not imply that one approach is more desirable than the other in any normative senses (e.g., Guthrie, Rachlinski, & Wistrich, 2007; Tetlock, Bernzweig, & Gallant, 1985). Conservative judges’ receptiveness to the-more-arguments-the-better approach need not imply a type of shallow or superficial deliberation. Rather, it may serve as evidence that conservative judges are able to reduce the complex nature of judicial decision making to a few key considerations that get at the heart of the case. As Tetlock and his co-authors. (1985) cogently argue, “Each of these characterizations may possess a kernel of the truth. On some occasions, integrative simplicity may be more appropriate than complexity; on other occasions, the reverse may hold true” (p. 1238). We agree. Furthermore, the fact that liberal court of appeals judges appear not to be influenced by amici of any stripe could be interpreted as a troubling lack of

attention being given to additional information or new perspectives that could improve the deliberative process. In short, the asymmetrical findings with regard to conservative and liberal judges evidence different cognitive processes vis-à-vis persuasion but does not imply that “liberal” cognition is “better” than “conservative” cognition (or vice versa).

## Conclusion

This analysis addresses questions of perennial importance to the study of political science: To what extent does ideology mediate the influence of persuasive information? Does interest group lobbying influence the choices political actors make? How useful are psychological approaches to understanding judging and political decision making more generally? To address these issues, we have investigated the mechanisms by which *amicus curiae* briefs influence judicial decision making in the courts of appeals. In particular, we shed light on whether the influence of *amicus* briefs is better understood using a motivated reasoning framework in which their influence is mediated by the judge’s ideology or using a heuristic information processing framework in which their influence is unmediated. Our empirical results suggest at least tentatively that a heuristic information processing framework is a better fit as an explanation for the process by which those briefs manifest an effect for moderate and conservative judges. Liberal judges, however, are generally immune to the persuasive powers of *amici* in the context of the courts of appeals. So, although there is an ideological component to the persuasive power of *amicus* briefs, that ideological component pertains to whether or not a judge is influenced by them, rather than whether or not a judge’s ideology serves to condition their influence.

As a caveat, we note that this analysis is limited to how judges respond to one aspect of *amicus* briefs; that is, the number of *amicus* briefs filed in support of a particular outcome (which serves as a proxy for the quantity of arguments made by *amici* supporting a position). Although this is a well-established heuristic, there is a host of additional heuristic cues on which judges could rely in assessing the persuasiveness of *amicus curiae* briefs. In particular, the quality of the arguments embedded in *amicus* briefs may matter quite a bit. Certainly, *amici* (and their legal counsel) would hope that was the case. And, more experienced litigators representing *amici* (and presumably contributing to higher quality legal arguments) may serve as an easily accessible rule of thumb for court of appeals judges. Careful content analysis of *amicus curiae* briefs, perhaps combined with data gleaned from interviews with judges, would yield important evidence in this regard. Moreover, applying these insights regarding persuasion to the decision making of other political actors,

such as voters, jurors, legislators, and bureaucrats, will offer additional leverage over the generalizability of our findings.

Despite these limitations, this research has made an important contribution to the study of how political actors process persuasive information and the use of psychological theories more generally. Although political scientists have long been attentive to the effect of persuasion on political choice, the typical approach is to control for ideological concerns, as opposed to explicitly investigating how attitudinal factors might mediate the response to persuasion (e.g., Caldeira & Wright, 1988; Collins, 2007; Collins & Martinek, 2010a; Spriggs & Wahlbeck, 1997). Although such studies have certainly contributed to our understanding of political behavior, they often fail to articulate a mechanism by which political actors process persuasive information. In illustrating the utility of adopting approaches from cognitive psychology, we have demonstrated the theoretical leverage offered by such theories for better comprehending the decision making of political actors.

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### **Notes**

1. The courts of appeals are the major intermediate appellate courts in the federal system and process the vast majority of appeals in the federal system. They are key policymakers in their own right and, given the paltry number of cases heard by the U.S. Supreme Court each term, the courts of appeals serve as the de facto courts of last resort in the federal system (Martinek, 2008).

2. See, for example, Judge Richard Posner in *Voices for Choices v. Illinois Bell Telephone Company*, 339 F.3d 542 at 545 (7th Cir. 2003). In contrast to Posner's position, 87.7% of appeals court judges surveyed by Simard (2008) disagreed with the need for stricter procedural rules to limit amicus curiae participation.
3. *Neonatology Associates v. Commissioner of Internal Revenue Service*, 293 F.3d 128 at 131 (3rd Cir. 2002).
4. We hasten to note that interest groups participating as amici may well see a "loss" in the instant case as a "win" in terms of a long-term strategy (Tushnet, 1987), or as useful for purposes of organizational maintenance (Moe, 1980).
5. Wood (2000) and Crano and Prislin (2006) offer particularly useful reviews of this literature.
6. Generally speaking, this distinction matches the distinction between central and peripheral routes to persuasion (e.g., Petty & Cacioppo, 1984) and that of System 1 and System 2 processing (e.g., Guthrie, Rachlinski, & Wistrich, 2007). For a recent and cogent review of dual processing systems as related to persuasion, see Petty and Briñol (2008). For a discussion of the conditions under which heuristic and systematic processing might co-occur, see Chen, Duckworth, and Chaiken (1999). Inasmuch as our focus is on how judges respond to persuasion attempts in amicus curiae briefs, our empirical expectations are based on the differing predictions generated by the (systematic) motivated reasoning model (Kunda, 1990), as compared with the heuristic processing model (Chaiken, 1987).
7. Alternatively, individuals may also be said to be engaging in motivated reasoning if they are motivated to arrive at accurate conclusions rather than directional goals (Braman, 2009; Kunda, 1990).
8. Political scientists have used the motivated reasoning model to great effect to better understand a range of phenomena, including such disparate items as presidential approval (Lebo & Cassino, 2007), legislative budgetary changes (Anderson & Harbridge, 2014), and the utilization of legal precedent (Braman & Nelson, 2007).
9. As some scholars have forcefully argued, however, individuals can make reasoned choices without the need for complete information (Lupia & McCubbins, 1998).
10. The identities of particular amici may also matter in terms of how information is processed. Our concern here, however, is with the effect of amici in the aggregate.
11. In content analyses of amicus briefs, both Collins (2008a) and Spriggs and Wahlbeck (1997) demonstrated that about 70% of amicus briefs provide original arguments not addressed by the parties to litigation (see also Collins, Corley, & Hamner, 2014). In addition, Collins (2008a) found that all of the amicus briefs in his sample contained legal authorities not referenced by the litigants. Thus, it is clear that amicus briefs introduce additional arguments. Although these findings pertain to amicus briefs filed at the U.S. Supreme Court, we have little reason to believe they are not applicable to the court of appeals level as well.
12. Note that in both the motivated reasoning and heuristic processing models deployed here, the amount of amicus participation matters. However, the former

theorizes that it is conditional on compatibility between the amount and ideological content of that amicus participation whereas the later does not. What makes the effect of amicus participation conditional on the ideology of the judge (read: the target of persuasion) equivalent to motivated reasoning is precisely the fact that information is processed differently if it does or does not comport with the (in this case, ideological) outcome to which the judge is predisposed. Colloquially, it could be characterized as a rule of thumb such as more compatible briefs (as compared with simply more briefs in the heuristic processing model), but that colloquial usage runs the risk of misrepresenting the distinction between motivated reasoning and heuristic processing, subsuming the former into the latter.

13. Although the majority of court of appeals opinions are not published, the exclusive focus on published opinions here is entirely appropriate given that published opinions tend to have wide-ranging policy implications (whereas the average unpublished opinion does not), thus attracting the attention of organized interests and enhancing the extent to which judges rely on their attitudes in rendering their decisions (e.g., Keele, Malmsheimer, Floyd, & Zhang, 2009).
14. The U.S. Court of Appeals for the Federal Circuit differs from the other 12 circuits (i.e., the 11 numbered circuits plus the U.S. Court of Appeals for the District of Columbia) in substantively meaningful ways such that its exclusion in the following analyses is necessary. In particular, the Federal Circuit has nationwide appellate jurisdiction over a small subset of very specialized issues (e.g., international trade, veterans' benefits, trademarks), in contrast to the general jurisdiction enjoyed by the other 12 circuits.
15. A handful of cases per circuit per year are heard en banc—meaning all the court of appeals judges of a circuit sit together, typically to rehear a case previously decided by a three-judge panel (Giles, Hettinger, Zorn, & Peppers, 2007). The exception is in the Ninth Circuit, which uses a mini en banc in which the chief judge plus 14 additional court of appeals judges of the circuit serve as the en banc court (Giles et al., 2007).
16. Although it is by no means the only dependent variable that can offer leverage on the influence of amici (see, for example, Collins, Corley, & Hamner, 2013), this dichotomous dependent variable is well suited for our purpose of better understanding how courts of appeals decisions are structured by amicus curiae briefs (e.g., Box-Steffensmeier, Christenson, & Hitt, 2013; Collins, 2008a).
17. We also estimated an alternative model specification that used robust standard errors clustered on case, the results of which are consistent with those reported herein. In addition, we considered the use of a hierarchical linear modeling (HLM) approach, an alternative to clustering. However, we ultimately rejected that approach because neither clustering nor HLM “is a panacea for the problems related to multilevel data” and clustering “is an easy-to-implement methodology that requires fewer assumptions than the alternative technique” (Primo, Jacobmeier, & Milyo, 2007, p. 456).
18. Although the Federal Rules of Appellate Procedure indicate that the cover of an amicus curiae brief should designate which litigant the brief supports and

whether the amicus supports affirmance or reversal, it is not evident in all cases which litigant is, in fact, being supported. We were able to identify the positions taken in 88.1% of the briefs, which is a noted improvement over the 18% of excluded amicus briefs common to studies of the U.S. Supreme Court (e.g., Collins, 2008a; Gibson, 1997; Kearney & Merrill, 2000). We exclude from analysis the 11.9% of amicus briefs in which the amicus supported neither the appellant nor appellee.

19. The data on the ideological direction of the lower court decision appear in the Kuersten and Haire (2007) database.
20. We also estimated an auxiliary model using a single amicus variable that was created by subtracting the number of liberal amicus briefs from the number of conservative amicus briefs. We obtain substantively similar results as those reported below.
21. Although the overall rate at which amicus briefs are filed in the U.S. courts of appeals is low, they are appearing with increasing frequency in recent years (Martinek, 2006). Hence, efforts at understanding their influence are all the more timely given the changing dynamics. Furthermore, as noted earlier, court of appeals judges see them as important (Simard, 2008) and, despite (or perhaps because of) their relatively low frequency, their presence at the court of appeals level contributes in important ways to agenda setting at the Supreme Court level (Hagle & Spaeth, 2009).
22. The Giles–Hettinger–Peppers scores are theoretically grounded, empirically robust, and widely used. See Epstein, Martin, Segal, and Westerland (2007) for a more general discussion of and empirical investigation into the utility of judicial ideology measures based on Poole’s (1998) Common Space scores.
23. Their shared derivation from Poole’s Common Space scores means that the *Circuit Ideology* and *Supreme Court Ideology* variables are on the same metric.
24. As an alternative, we estimated a model replacing these variables with dichotomous variables for each category of litigant, save one. Those results are consistent with those reported below and, accordingly, parsimony led us to rely on the original resource variables.
25. We estimated an alternative model specification that included a variable capturing case salience, as well as variables controlling for issue areas other than criminal appeals. Because those variables failed to achieve statistical significance, we excluded them from the model reported in Table 1.
26. More specifically, if the court of appeals handed down a conservative (liberal) decision that affirmed the lower court, the lower court is assumed to have decided the case in the conservative (liberal) direction. If the court of appeals rendered a liberal (conservative) decision that reversed the lower court, the lower court is assumed to have rendered a conservative (liberal) decision (e.g., Collins & Martinek, 2011). Affirmances include those cases that were affirmed; affirmed, vacated (with no mention of reversal), and remanded; and those in which the petition was denied or the appeal was dismissed. Reversals encompass cases that were reversed, reversed and remanded, reversed and vacated, vacated and remanded, affirmed in part and reversed in part, and affirmed in part,

- reversed in part, and remanded. To ensure that our results were not an artifact of treating mixed outcomes (i.e., those cases affirmed in part and reversed in part; affirmed in part, reversed in part, and remanded) as reversals, we recoded this variable such that mixed outcomes were treated as affirmances and reestimated our model. In addition, we estimated a model that excluded mixed outcomes from the data. The results of both of those estimations are consonant with the results reported in Table 1.
27. There is minimal evidence of collinearity in the model. None of the independent variables are correlated higher than 0.62. Moreover, the variance inflation factor does not exceed 2.0 for any of the variables in the model and the tolerance never drops below 0.5.
  28. When we limit our sample to only cases in which amicus briefs were filed, our results regarding the influence of conservative amicus briefs hold, but the results of that estimation also reveal that liberal amicus briefs fail to exert a statistically significant influence on any judges in the data. It is important to bear in mind that restricting the sample in this way implicitly assumes that there are different data-generating processes at play depending on whether amici are present or not, something of which we are skeptical. Separate data-generating processes, in turn, suggest the use of a selection modeling approach, with the presence or absence of amici as the “selection” stage and the judge-vote as the “outcome” stage. However, it is difficult to imagine how to correctly specify a selection equation in this situation given the exclusion restriction required for model identification (because the factors leading to amicus participation are likely highly correlated with the factors structuring a judge’s choice to vote in a liberal or conservative fashion). More generally, the exclusion restriction requires the identification of variables that are unique to the selection state but unrelated to the outcome stage (Heckman, 1979). The consequences for inference in the presence of a poorly specified selection equation include biased parameter estimates in both stages (Brandt & Schneider, 2007). Given our skepticism about separate data-generating processes (and the possibility of the “fix” actually making inference less sound), we believe the estimation results using the full sample are a better basis from which to (with appropriate caveats) draw our conclusions about the effect of both liberal and conservative briefs on conservative judges.
  29. We also investigated the influence of amicus briefs in situations with varying numbers of conservative and liberal amicus briefs. For example, compared with a case in which there is one conservative brief and one liberal brief, in a case with two conservative briefs and one liberal brief, the chances of observing a conservative vote increase by about 3% for judges whose ideologies range from  $-0.1$  to  $0.66$ . For judges whose ideologies fall below  $-0.1$ , there is no statistically significant influence of conservative amicus briefs. Thus, although the substance and magnitude of these findings are similar to those reported in the upper right graph in Figure 1, the magnitude of the influence of conservative amicus briefs in this scenario is more uniform for moderate and conservative judges.

30. We explored whether there are differences regarding the extent to which liberal and conservative judges respond to the preferences of their panel colleagues. We failed to unearth significant differences.
31. We examined whether the marginal effect of amicus briefs is enhanced if the ideological position advocated in the amicus brief is consistent with the ideological direction of the lower court decision, which finds modest support in the data. For example, a 0 to 1 change in liberal amicus briefs increases the probability of a conservative vote by a conservative judge (*Ideology* = 0.4) by 4% if the lower court rendered a liberal decision, compared with 3% when the lower court rendered a conservative decision.
32. We recognize that groups may file amicus briefs in cases they are predisposed to win to appear efficacious to their members, shareholders, and patrons. If amici behave in such a manner, the results in Table 1 may simply be an artifact of groups' decisions to target cases they are likely to win. To evaluate this possibility, we conducted an endogeneity analysis in which we regressed each of the non-amicus variables in Table 1 on the difference in the number of liberal and conservative amicus briefs filed in each case. If groups are especially likely to file amicus briefs in cases in which they are expected to emerge victorious, we expect that conservative amicus briefs will outnumber liberal amicus briefs when (a) the ideology of the panel, circuit, and Supreme Court is conservative; (b) the liberal litigant ranks low on the resource scale; (c) the conservative litigant ranks high on the resource scale; (d) the lower court decided the case in the conservative direction; and (e) the case is a criminal appeal. The results of this analysis produced no evidence to support the notion that groups target cases for participation as amici when they think they will win. The full details regarding this endogeneity analysis are reported in the electronic appendix.
33. Given our focus on a set of relatively recent cases, it is interesting to consider whether the same effects would manifest themselves in an analysis of cases from decades ago. As documented by McIntosh and Parker (1986) and Martinek (2006), amicus participation in the U.S. courts of appeals, although still much lower than in the U.S. Supreme Court, has doubled and sometimes tripled in recent years as compared with the 1960s and earlier. When amici were more infrequent than they are now (and workloads were much lower), it is possible that the cognitive processing of court of appeals judges was more homogeneous across judges of different ideological persuasions because their novelty prompted all judges to be fully engaged (i.e., the rareness of amicus participation meant they were more stimulating stimuli).
34. Collins (2008a) finds that the quantity of liberal and conservative amicus briefs influences Supreme Court justices largely irrespective of their ideological preferences. This suggests that both liberal and conservative Supreme Court justices respond to amicus briefs consistent with the heuristic processing model. However, that study did not consider the more complex forms of information processing investigated by Box-Steffensmeier and her colleagues (2013). When considered in light of the current study, this suggests that the influence (and

- mediating effect) of ideology may differ for judges at different levels of the judicial hierarchy (e.g., Zorn & Bowie, 2010).
35. As Jost, Glaser, Kruglanski, and Sulloway (2003) observe, "The psychological study of ideological conservatism is one that invites controversy . . ." (p. 339). Controversial or not, there is a good deal of both theoretical and empirical traction vis-à-vis differences between and among liberals, conservatives, and moderates in terms of cognitive style.
  36. Alternatively, these results might be interpreted to suggest that liberal judges engage in *less* cognitively complex reasoning than conservative judges by ignoring the persuasion attempts in amicus briefs and focusing primarily on their attitudes in rendering decisions. Although this is possible, the vast literature on ideology and cognitive style suggests it is less plausible than the alternative account discussed above.

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