The Psychology of Legal Decision Making

A Dissertation

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Dedication

To Catherine.

Abstract

This dissertation is organized into three chapters. They are all centered around the theme of whether the law, as a psychological construct, can encourage people to engage in unbiased, neutral decision making. Many empirical accounts of legal actors – both of elites and the mass public – demonstrate that legal decisions are often driven by people's political beliefs. There is, however, comparatively little empirical scholarship that rigorously tests the mechanisms of legal cognition and whether the law can induce more normatively desirable decision making. My dissertation tackles this gap in the literature head-on.

In the first chapter, I analyze legal decision making in lay people and law students and argue that thinking "like a judge" makes people more open to information that challenges their beliefs and preferences. In three experiments, I test whether a simple legal frame primes subjects to engage in "bottom-up" reasoning and dampens the effects of "top-down" or motivated reasoning. The results consistently indicate that subjects who are asked to think "like a judge" are less driven by their personal preferences than subjects in control groups. I obtain conflicted findings as to whether sophistication moderates that relationship but very strong results suggesting that even small amounts of legal training make subjects much more receptive to legal primes and better able to identify and be persuaded by strong legal arguments. The overall results suggest that the law, as a concept, can motivate people to set aside their personal convictions in order to get the "right" answer. I explore these findings within the broader literature of social cognition and their implications for political science's account of judicial behavior.

In the second chapter, I conduct an experiment to determine if legal decision making insulates people from pervasive forms of cognitive bias. The first chapter establishes that legal decision making encourages subjects to pursue accuracy goals and to be open to information and arguments that run counter to their personal policy preferences. In this chapter I test whether subjects who are asked to think "like a judge" will be influenced by legally irrelevant, affectively charged cues. I find that subjects in the legal treatment are just as influenced by a negative image prime as subjects in the control group, suggesting that while the law can encourage accurate decision making it is not a sufficient condition for engaging in "cool consideration." I explore the implications of these findings within the broader literature on social cognition and judicial behavior.

In the final chapter, I analyze the psychology of elite decision making and argue that Supreme Court justices engage in similar cognitive processes as the mass public. In particular, I posit that they may be subconsciously influenced by irrelevant information. To test this hypothesis, I track incidents of laughter during oral argument and demonstrate that, while controlling for other politically and strategically relevant variables, this positive but irrelevant stimuli can influence the justices' votes. While not going so far as to conclude that attorneys should hone their stand-up routines, or that law is what the "judge had for breakfast," I argue that the persuasive effect of laughter is evidence that the justices engage in a degree of automatic, subconscious processing when deciding on their cases. This serves as preliminary evidence that cognitive processes common to members of the mass public may drive elite behavior as well.

Table of Contents

List of Tables

List of Figures

Chapter 1:   Law and Accuracy Motivations

Justice Oliver Wendell Holmes famously wrote that if "you want to know the law and nothing else, you must look at it as a bad man, who cares only for the material consequences which such knowledge enables him to predict" (Holmes 1897, 993). To Holmes, the study of "the law" is about prediction, not morality or higher ideals. It is an inquiry into which actions will incur a punishment and when. Instead of pursuing complicated, metaphysical debates over the nature of "the law," philosophers of jurisprudence and legal scholars should simple study the behavior of judges.

Political scientists and legal realists have taken Holmes's advice to heart. The law, especially judge-made law, has been described as a "cloak for the justices' policy preferences." (Segal and Cover 1989, 562). Much of the research into the law and legal actors is focused almost entirely on predicting what judges will do given their personal preferences and institutional and collegial constraints (e.g. Ruger et al. 2004; Maltzman, Spriggs and Wahlbeck 2000; Epstein and Knight 1998). In addition, research on the public's perceptions of the courts focuses on the degree to which people are satisfied with the courts' policy outputs (Gibson, Caldeira and Baird 1998) and on the courts' alignment with people's partisan interests (Clark and Kastellec 2015; Bartels and Johnston 2013). Instead of studying the "higher law" (Corwin 1928) or "natural law" (Finnis 2011), political scientists study it as they would any other phenomena: by studying how political actors and the mass public use, adapt, and interpret the law as part of an ongoing political process. This approach, in effect, turns the old saying that we are "a nation of laws, and not

of men,"[1] on its head. It is what people do, and not what the law says, that matters.

Research has also shown, however, that judges and the mass public seem to care about the law and that what they do is often driven by what the law says. Judges say that they care about the law (Roberts 2005) and frequently act as though they are constrained by it (Corley and Ward 2013; Songer, Ginn, and Tammy 2003; Richards and Kritzer 2002). Lay people, additionally, perceive the courts as having more legitimacy than the political branches (Gibson and Caldeira 2009; Gibson, Caldeira, and Spence 2005) and have been shown to value the law for its fairness and legitimacy and not just as an instrument for meting out punishment or providing security and order (Sunshine and Tyler 2003; Tyler 2003).

This chapter takes seriously the argument that there is an "internal aspect" of the law that is worth exploring (Hart 2012; Bix 2012) and that the law, as a concept, can alter people's behaviors and perceptions. I argue that framing a question as a legal issue motivates people to hold accurate, socially acceptable beliefs (Kunda 1990). In a series of experiments, I show that subjects who are asked to pretend to be judges make decisions regarding political controversies that are more aligned with legal principles and less aligned with their preferences than similarly situated subjects in control groups. This gives some preliminary evidence that the law, on its own and absent any tangible incentives or institutional restraints, can constrain people's behavior. These results more generally imply that treating the law as nothing more than a cloak to hide preference-driven behavior misses the degree to which legal actors *have a preference* for following the law.

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[1] *Marbury v. Madison*, 5 U.S. 137, 163 (1803).

The chapter proceeds as follows. In the next section I lay out the theoretical foundations for my experiments along with my main hypotheses. I then describe and provide results from three experiments that test those hypotheses. I conclude with a discussion that ties together the main findings and that connects those findings to the broader literature on psychology and judicial behavior.

Theory and Hypotheses

In *Lawrence v. Texas*, Justice Thomas wrote in his dissent that, were he a member of the Texas legislature, he would gladly vote to repeal an "uncommonly silly" Texas law banning same-sex sodomy. As a Supreme Court justice, however, he felt compelled to rule that the law was constitutional. Thomas's claim perfectly encapsulates a basic dilemma in many decision-making tasks: the desire to defend one's personal preferences and the desire to hold accurate and socially acceptable beliefs. The question I seek to answer is whether the law, as a social or psychological construct, can meaningfully compel people to prioritize the latter goal at the expense of the former.

As a general rule, people want to hold factually accurate and socially acceptable beliefs (Petty and Cacioppo 1986; Kunda 1990). People find it unpleasant to think their beliefs are not supported by sound evidence or that their beliefs are offensive to members of their community. People simultaneously want to defend their prior beliefs (Kunda 1990; Lodge and Taber 2012). They find it unpleasant to admit something they believe is inaccurate or inappropriate. Beliefs and attitudes are an important part of one's self-conception and admitting they are wrong can harm one's sense of self-worth (Sherman and Cohen 2002; Cohen, Aronson, and Steele 2000; Sherman, Nelson, and Steele 2000; Steele

1988).

The push and pull between defending our attitudes while also holding accurate beliefs is part of the reason people seek out information that supports their beliefs and avoid or challenge information that undermines their beliefs (Taber and Lodge 2006; Redlawsk 2002). It is why people are willing to spend substantial time and effort to defend and justify their beliefs to potential critics (Tetlock 1983). Our attitudes and beliefs are part of what makes us who we are. For most people, it is worth the effort to resolve any tension between their attitudes and their self-conception as being fair-minded and objective.

Kunda (1990) discusses these motivations in terms of "accuracy" versus "directional" motivations – the motivation to go where the evidence takes you versus a desire to move in a particular direction and justify a particular conclusion. Other scholars describe the same phenomena in terms of processes, labeling this dichotomy as "bottom-up" versus "top-down" reasoning. "Bottom-up" reasoning entails working with the facts at hand and constructing from them a belief or attitude whereas "top-down" reasoning starts with a desired conclusion and works backwards to justify it given the available facts (Bartels 2010; Braman and Nelson 2007; Braman 2006). The question becomes, then, what variables might increase or decrease a person's motivation to hold accurate beliefs (or to engage in "bottom-up" reasoning) as opposed to pursuing directional motivations (or to engage in "top-down" reasoning).

Many psychologists have suggested that the desire to think deliberately may encourage people to pursue "bottom-up" reasoning. Petty and Cacioppo (1986) argue that, when people have the motivation and ability to engage in effortful, deliberative thought,

they are more likely to scrutinize arguments, to dismiss as unpersuasive weak or specious arguments, and to be persuaded by strong arguments (see also Petty and Cacioppo 1984). Other psychologists have suggested that people are more likely to engage in "bottom-up" reasoning if they can do so in an "identity-protective" fashion. Cohen, Arenson and Steele (2000) argue that people are more accepting of arguments that run counter to their personal beliefs if alternative sources of self-worth are activated first. As an example, they use a pair of experiments to show that subjects are more likely to accept arguments that run counter to the strongly held beliefs about capital punishment if they were first asked to write about instances in which a personal trait they possess – like a sense of humor – made them feel good.

I argue that the law, as a social and psychological construct, can increase accuracy motivations. People have internalized notions of what the law is and how it should operate, i.e. as a legitimate set of interdependent, logical axioms and rules (Gibson, Lodge, and Woodson 2014). Thinking about a controversy within a legal mindset is likely to induce more deliberative, analytical thought processes and, per Petty and Cacioppo (1984), increase scrutiny and attentiveness to strong arguments. Similarly, per work on self-affirmation and persuasion (Sherman and Cohen 2002; Cohen, Aronson, and Steele 2000; Sherman, Nelson, and Steele 2000; Steele 1988), thinking about a controversy within a legal mindset can be identity protective – the loss of self-esteem that results from accepting arguments that run counter to one's own beliefs is offset by an increase in self-esteem for making an even-handed and objective judgment that is consistent with a legitimate source of authority.

I thus hypothesize that the law can increase accuracy motivations. In particular, I hypothesize that subjects, when asked to think like a judge, will behave different than will similarly situated subjects who are asked to think like a politician or who are asked to simply give their personal opinion about a controversy. While I offer no hypothesis about whether Justice Thomas was sincere when he declared that he would vote against the Texas law at issue in *Lawrence* were he a legislator, I do hypothesize that thinking like a judge makes that sort of behavior possible.

> **H1:** Being asked to think "like a judge" will increase accuracy motivations; i.e. the desire to engage in "bottom-up" reasoning. Subjects who are asked to think like a judge will be persuaded by strong legal arguments even if such arguments run counter to their policy preferences.

People can be induced to embrace accuracy goals through experimental manipulations or contextual factors, but internal factors matter as well. There is a substantial body of literature which suggests that, in particular, sophistication increases people's ability to successfully satisfy their desire to both defend their personal beliefs and to hold accurate beliefs (Groenendyk 2013; Lodge and Taber 2013; Kahan et al. 2013; Lavine, Johnston, and Steenbergen 2012; Petty and Cacioppo 1986, 78). Simply put, sophisticated people are better able to rationalize their beliefs. Studies have shown, for example, that sophisticated partisans are better able to justify their partisan identification in the face of evidence showing that the opposing party may better represent their values (Groenendyk 2013, 84-86) and studies have even shown that people who are good at math are better able to justify their beliefs in the face of clear, mathematical proof that they are unfounded (Kahan et al. 2013).

I thus hypothesize that sophistication will attenuate the effect that the law has on

people's accuracy motivations. People who are more sophisticated, when thinking within a legal mindset, will be better able to resolve any inconsistencies between what the law purports to require and what they desire.

> **H2:** Sophisticated people will be more likely to engage in "top-down" reasoning than unsophisticated people when asked to think "like a judge." Sophisticated subjects who are asked to think like a judge will be better able to justify their policy preferences with available legal arguments than unsophisticated people.

This is not to say that Justice Thomas and other jurists are simply writing their preferences into the law and using their legal sophistication to justify their decisions after the fact. There is an important distinction between sophistication and professionalization. Studies have demonstrated that the training and socialization associated with different professional occupations enable people to hone in on relevant information, to ignore irrelevant information, and to reliably reach accurate conclusions (Kahan et al. 2015; Kiesel and Kunde 2009; Chi 2006). The training and socialization that judges undergo may enable them, as jurists, to engage in cognitive processes that are entirely distinct from the mass public (Schauer 2010). Kahan et al. (2015), for example, conducted experiments on lay people, law students, lawyers and judges and found that lawyers and judges in particular were not influenced by the cultural identity of the litigants involved in hypothetical legal disputes. Lay people and, to a lesser extent, law students were more likely to render verdicts that advantaged litigants with whom they identified. I thus hypothesize that people with legal training and expertise will be much more receptive to legal frames.

H3: People with legal training and expertise will be more likely to engage in "bottom-up" reasoning when thinking like a judge compared to lay people. Legally trained subjects who are asked to think like a judge will be persuaded by strong legal arguments even if such arguments run counter to their policy preferences.

Experimental Tests

To test these hypotheses, I conduct three online experiments. The goal of these experiments is modest: to establish that people behave differently when asked to think "like a judge." I do not believe, nor do I attempt to prove, that the law can eliminate directional motivations. Further, I leave for subsequent studies the task of identifying the exact cognitive mechanisms by which the law can improve or alter decision making. I am simply trying to establish that, when asked to think like a judge, people can focus on the legally relevant variables, identify strong arguments, and reach a legally sound conclusion even if that conclusion runs counter to their personal preferences. Confirmation of my hypotheses would serve as proof of concept that Justice Thomas *may* have been telling the truth and that the law can serve as a prime that encourages individuals to privilege accuracy goals even at the expense of defending one's personal preferences.

All three experiments were conducted online with subjects recruited through Amazon Mechanical Turk (MTurk). MTurk is widely used in political science research and studies have verified that MTurk subjects are more representative of the U.S. population than many forms of convenience samples and that results from MTurk studies mirror those of studies conducted through more traditional means (Berinsky, Huber, and Lenz 2012). The experiments were hosted online using Qualtrics Online Survey Solutions (Qualtrics). Qualtrics is a commonly used platform for conducting online experiments as it allows for

randomization of treatments, blocking, and the collection of metadata such as the time to complete tasks (see, e.g., Hill, DelPriore, and Vaughan 2011; Hassell and Visalvanich 2013).

I provide information about the demographic characteristics about the subjects in Appendix A. In general, these subjects differ from the general population in that they are more likely to identify as Democrats. There may also be unmeasured differences between MTurk users and the general population (e.g. MTurk users may be more frequent and sophisticated internet users than the general population) (Clark and Kastellec 2015). This gives rise to the concern that any treatment effects in my experiment are unique to my sample and cannot be generalized to the population at large. All experiments suffer from a degree of external validity issues. As other researchers who have used MTurk have done in the past (e.g. Clark and Kastellec 2015), I emphasize the internal validity of the study. I am less concerned with making generalizable statements about people's preferences or their views on the law and more concerned with estimating the effect of legal primes on subjects' thought processes.

The basic treatment in all three experiments is substantially the same. Half the subjects are asked to pretend to be judges before they read about a controversy and half are not. Past research on motivated reasoning has demonstrated that short prompts asking subjects to consider the material in an evenhanded way and warning subjects that they will be asked to justify their responses to questionnaires effectively generates accuracy motivations (Bolson and Druckman 2015; Bolson, Druckman, and Cook 2014; Lerner and Tetlock 1999). These experiments test if priming a subject to consider a question through

a legal lens, to think "like a judge," will similarly motivate them to hold accurate beliefs or to engage in "bottom-up" reasoning.

Study 1: The Law, Littering, and Immigration

The first experiment replicates and modifies an experiment conducted by Kahan et al. (2015). In that experiment, Kahan et al. demonstrate that lay people were influenced by their cultural worldviews when rendering a verdict on a hypothetical legal dispute. The experiment manipulated the cultural identity of the litigants in a legal controversy without altering any of the pertinent legal details. Kahan et al. demonstrate that lay people's decisions were influenced by the identity of the litigants whereas lawyers' and judges' decisions were not. This is consistent with my third hypothesis that legally trained professionals perform better on legal tasks than do lay people. Hence I do not question nor do I test Kahan et al.'s findings that lawyers and judges are less swayed by the identity of the litigants than are lay people.

Kahan et al. demonstrate that lay people think through legal controversies differently than do legal experts but they *do not* test for whether lay people think through legal controversies differently than they think through political or social controversies. To test whether thinking "like a judge" alters lay people's decision-making process, I add an experimental manipulation to one of Kahan et al.'s scenarios. In the *Legal Treatment*, subjects are asked to pretend to be judges as they read through Kahan et al.'s legal controversy and to render a verdict at the conclusion (as all the subjects did in Kahan et al.'s original experiment). The other half of the subjects are assigned to a control group and are simply asked to read through the controversy and to give their opinion about it. If

similarly situated subjects in the legal treatment give different responses than do subjects in the control group, it would confirm my first hypothesis that the law can motivate people to pursue accuracy goals.

Study Design

After providing informed consent, subjects are told that they would be asked to read about a controversy and to give their opinion about it. Half of the subjects are told to pretend to be judges and that they would read a short brief about a legal controversy before giving their judgment on the case (*Legal Treatment*). The other half of the subjects, which serves as the control group, are told that they would read a newspaper article about a controversy and will be asked for their opinion about the controversy. All subjects then read about a substantially identical scenario except that legal terms are removed from the text in the control group. After reading the scenario, subjects who received the legal treatment are asked to decide if the defendants did or did not violate a law. Subjects in the control group are asked if the action they read about should be prohibited or allowed. The framing language is listed below and the full text of the experiment can be found in Appendix B. The framing language used for the legal frame is adapted from Canon 3(A)(1) of the code of conduct for federal judges.[2]

> **Legal Frame:** In this scenario, pretend you are a Federal District Court Judge. You are tasked with determining whether an action is consistent with the law. In making your decisions, try to consider only the facts presented

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[2] Canon 3(A)(1) sets out rules for judges' "Adjudicative Responsibilities" and stipulates that a "judge should be faithful to, and maintain professional competence in, the law and should not be swayed by partisan interests, public clamor, or fear of criticism." Available at http://www.uscourts.gov/judges-judgeships/code-conduct-united-states-judges.

in the following excerpts from a brief on the topic. Your decisions should be based on your understanding of law and the relevant legal principles presented in the brief. A judge should be faithful to the law and should not be swayed by partisan interests, public opinion, or fear of criticism.

Neutral Frame: In the following scenario you will read a news article about a dispute. You will be tasked with determining whether an action ought to be allowed or prohibited. In making your decisions, try to consider only the facts presented in the news article. Your decision should be based on whatever issues and principles you feel are most important.

The scenario that the subjects read about was taken from Kahan et al. (2015) and involves a dispute over littering. Per Kahan et al., I include a *Litigant Identification* treatment. Half of the subjects read about a group of construction workers who left bottles of water in the desert along the U.S.-Mexican border. The workers were constructing a border fence to keep out "illegal aliens" and planned to return to collect and drink the water as they worked on the fence. The other half of subjects read about a group of immigrant-aid workers who left bottles of water along the U.S.-Mexican border with the expectation that the water would be found and consumed by migrant workers illegally crossing the border. All subjects read identical arguments for why the construction or immigrant-aid workers should or should not be allowed to leave the water in the desert. The only difference in the scenarios is that the legal treatment references a specific littering law (the "Wildlife Environment Protection Act") and refers to the construction workers or immigrant-aid workers as "defendants" whereas the control group scenario only mentions "a law" against littering and refers to the groups by name.

Kahan et al. show that subjects' cultural worldviews, as measured through a post-experiment questionnaire, influence their judgments to the prompts. Subjects who are predisposed to favor immigration and immigrant's rights are more likely to convict the

construction workers for violating an anti-littering law and to acquit the immigrant-aid workers, and vice versa for subjects who are predisposed to oppose immigration and immigrants' rights.[3] I collect information about subjects' views on immigration and immigrants using questions from the 2012 American National Election Study (available in Appendix C). The questions cover subjects' opinions on hypothetical immigration laws, whether the subjects' think too many immigrants are permitted to enter the United States, whether subjects believe that immigration levels take away jobs from people who are already here, and a feeling thermometer question for how subjects feel about unauthorized immigrants as a group.[4] A principle factor analysis indicates that the questions load into one primary dimension (eigenvalue = 2.109). I generate a variable, *Immigration Opinion*, based on the indexed score for each subject, to measure their underlying opinion about immigration and immigrants. This variable runs from an in-sample minimum of -1.75, indicating the subject is strongly opposed to immigration and immigrant rights, to 1.33, indicating the subject is strongly in favor of immigration and immigrant rights.

I also measure subjects' sophistication through 6 fact-based questions about politics and 5 fact-based questions about the law (see Appendix C for the questions).[5] I add up

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[3] Kahan et al. discuss subjects' beliefs in terms of their "cultural worldviews," or where they fall on two axes of Hierarchy vs. Egalitarianism and Individualism vs. Communitarianism. I measure subjects' beliefs through more direct questions about their opinions on immigration.

[4] I randomized whether subjects were asked for their feelings about "unauthorized immigrants" versus "illegal immigrants." A t-test indicates that the question wording did not produce a statistically significant difference in subjects' responses ($p = .836$).

[5] Per Motta, Callaghan, and Smith (2016), I explicitly ask subjects to not look up the answers and I also embed a question designed to detect "cheaters," i.e. subjects who look up answers online, by asking an open-ended question for the date to an obscure Supreme Court case (*Von Moltke v. Gillies*). Subjects who correctly identify the date of the case are

subjects' correct answers to these 11 questions and collapse the data into a dichotomous variable, *Sophistication*, where subjects who get 9 or more questions correct (about one standard deviation above the mean number of correct answers) are deemed to be sophisticated (1) and those who get 8 or fewer correct are deemed to be not sophisticated (0).

I thus conduct a 2x2x2x2 experiment (*Legal Treatment* x *Litigant Identity* x *Immigration Opinion* x *Sophistication*), which allows me to test whether subjects who are asked to think "like a judge" behave differently than subjects who are unconstrained in their evaluations. Per my first hypothesis, I expect that subjects' opinions about immigration had less of an impact on their decisions in the *Legal Treatment* than they do in the control group. Per my second hypothesis, I expect that the *Legal Treatment* will have a less pronounced effect on sophisticated subjects because sophisticated subjects will be able to use the available legal arguments to justify a decision that aligns with their personal preferences.

Analysis and Results

I recruited 211 subjects in April of 2016.[6] The demographic characteristics of the subjects are available in Appendix A. My dependent variable is whether the subject decides that the construction or immigrant-aid workers' action should be allowed (1) or not (0). I thus estimate a logit model. The three independent variables of interest are whether the

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presumed to be using the internet to find the answers. Their responses are omitted from my analysis.

[6] Only 186 subjects completed the full experiment and one subject's response was omitted from my final analysis because he or she looked up the answers to the knowledge-based questions.

subjects' received the *Legal Treatment* (1) or not (0), the subjects' *Immigration Opinion*, and whether the subjects are *Sophisticated* (1) or not (0). I interact these three variables with each other and with the *Litigant Identification* variable to determine if the Legal Treatment effect is the same across different levels of support for immigration and the same for sophisticated and unsophisticated subjects.

The *Legal Treatment* variable has a direct and significant negative effect, indicating that subjects in the legal treatment were significantly less likely to rule that the littering should be permitted than their similarly situated subjects in the neutral treatment. There is, however, no significant interaction between the *Legal Treatment* variable and any of the other variables. An analysis confirms that the model performs better without interacting *Legal Treatment* with the other variables, and hence I estimate and report a model without the interaction below in Table 1.1.

Table 1.1: Probability of Declaring Action is Acceptable

	Subjects' Respose
Legal Treatment	-0.795*
	(0.332)
Immigration Opinion	-0.597
	(0.312)
Litigant Identification	-0.369
	(0.472)
Litigant Identification × Immigration Opinion	3.019***
	(0.813)
Sophisticated	0.276
	(0.483)
Immigration Opinion × Sophisticated	1.376*
	(0.602)
Litigant Identification × Sophisticated	-0.016
	(0.747)
Litigant Identification × Immigration Opinion × Sophisticated	-2.661*
	(1.146)
Constant	0.504
	(0.298)
Observations	185

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

It is easier to see the results of the *Legal Treatment's* effect by recoding the dependent variable to capture whether the subject responded in such a way that indicates favor or disfavor for immigration. I create a new dependent variable, *Pro-Immigrant*, which equals 1 if the subject responded in a way that favors immigrants (either prohibiting the

16

construction workers from leaving water or allowing the immigrant-aid workers to leave water) and 0 if the subject responded in a way that does not favor immigrants (vice versa of the above). I interact the *Legal Treatment* variable with *Immigration Opinion* to demonstrate subjects' responses across different levels of support for immigration and immigrants.

As Figure 1 shows, subjects who were told to pretend to be judges were about 50% likely to render a verdict that advances immigrants' rights regardless of their opinion about immigration.[7] Subjects in the neutral treatment, however, seemed primarily driven by their opinions about immigration and immigrants. Despite the fact that both scenarios presented an essentially identical conflict – leaving water in the desert to be used in the future – subjects in the neutral treatment who opposed immigration were much more likely to rule that the construction workers should be allowed to leave water and much less likely to rule that the immigrant-aid workers should be allowed to leave water (and vice versa for subjects who support immigration).

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[7] Note that Kahan et al. (2015) measured subjects' opinions in terms of "cultural worldview," not their explicit preferences over immigration and immigrants. To the extent that my results differ from theirs, this measurement choice may explain it.
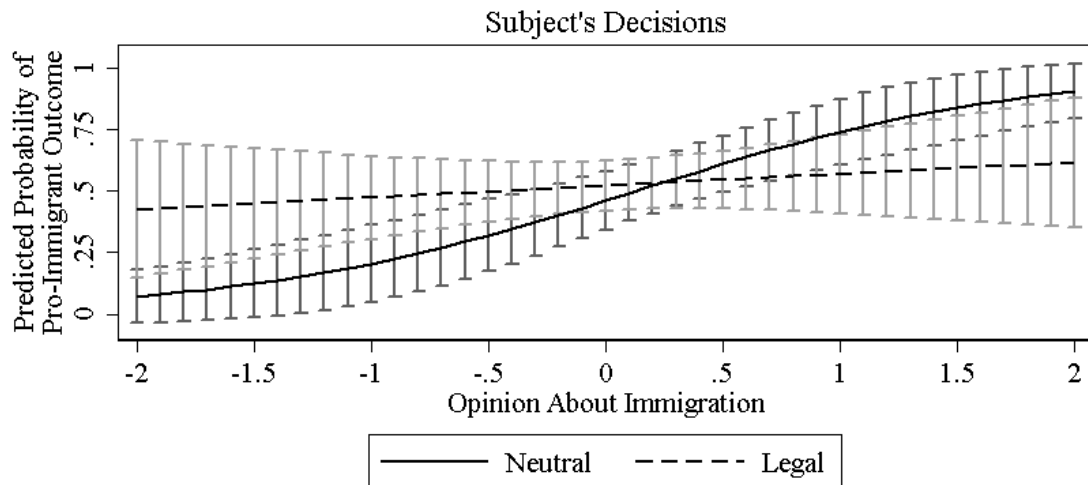
Figure 1.1 - Legal vs. Neutral Frame and Subjects' Decisions: The graph presents the predicted probability that a subject's ruling or vote will favor a pro-immigration outcome given the treatment (legal or political frame) and the subject's personal opinions about immigration policy. The predicted probability of a pro-immigration outcome is shown along the y-axis. The subject's opinion about immigration policy is shown along the x-axis, with lower values indicating that the subject opposes immigration and immigrants and higher values indicating that the subject favors immigration and immigrants. The solid line shows the predicted probabilities of the subjects who received the neutral treatment and the dashed line shows the predicted probabilities of subjects who received the legal treatment. The spikes depict the 95 percent confidence intervals.

Discussion

Kahan et al. (2015) ably show that lay people are more likely to be influenced by the cultural identity of litigants than are judges and lawyers. In an extension of their experiment, I partly validate their findings: subjects in my legal treatment were likely to render a verdict that aligned with their beliefs and opinions about immigration and immigrants' rights. My results also show that subjects' personal beliefs about immigration influenced their legal verdicts much less than did the beliefs of similarly situated subjects' in the neutral treatment. Subjects who read about substantially identical scenarios in a newspaper article responded in a way that was driven primarily by their views about immigration. Subjects pretending to be judges seemed to consider the legal merits of the hypothetical case and, to some extent, were able to set aside their personal opinions in

18

responding.

Kahan et al. (2015, 28) stipulate that the litter vignette provided a genuinely ambiguous statutory interpretation question, and that "[d]ictionary definitions and rules of grammar did not compel one result over the other…." About 75% of judges and lawyers in Kahan et al.'s original experiment determined that neither the construction workers nor the immigrant-aid workers violated the anti-littering law, but Kahan et al. were not surprised that "members of the public displayed a high level of disagreement on the proper outcomes." Despite the legal ambiguities and despite their lack of legal training, these results indicate that subjects in the legal treatment behaved differently than their similarly situated counterparts in the neutral treatment and, it would seem, attempted to get the "right" legal answer. In subsequent experiments, I test whether lay people have more success when presented with clear and persuasive legal arguments.

Study 2: Constitutional Law, Energy Policy, and Sophistication

The Kahan et al. (2015) replication involved a legal scenario that described an ambiguous question of statutory interpretation. In my second experiment I devise a controversy that involves a relatively simple and straightforward question of constitutional interpretation. This should provide a clearer story as to whether lay people are able to pursue accuracy goals when asked to think like a judge and should also validate that the type of law (statutory or constitutional) does not matter for how people process legal controversies.

Study Design

As in the first experiment, I ask half the subjects to pretend that they are judges

(*Legal Treatment*). The other half are asked to pretend to be a politician, which serves as the unconstrained control group. All of the subjects then read about the same politically salient policy. I end the experiment by asking the participants in the legal treatment to rule on the constitutionality of the policy and subjects in the control group to vote on whether to repeal the policy. The framing text that I use is presented below and the full text of the experiment can be found in Appendix B.

> **Legal Frame:** In this scenario, pretend you are a Federal District Court Judge. You are tasked with determining whether a federal law is consistent with the constitution. In making your decisions, try to consider only the facts presented in the following excerpts from a brief on the topic. Your decisions should be based on your understanding of constitutional law and the relevant legal principles presented in the brief. A judge should be faithful to the law and should not be swayed by partisan interests, public opinion, or fear of criticism.

> **Political Frame:** In this scenario, pretend you are a Congressperson. You are tasked with determining whether to alter a federal law. In making your decisions, try to consider only the facts presented in the following excerpts from a brief on the topic. Your decision should be based on whatever issues and principles you feel are most important to consider within your role as a Congressperson.

Subjects in both the legal and control group groups read about the same fictional law called the Innovation Law. This law creates a federal agency that funds research for wind and solar power projects or for oil and gas power projects. Subjects are told that the officers appointed to the agency decide to direct all of the agency's funds for wind and solar projects.

After reading about the law and the agency's funding decision, subjects in the control group were told that a Congressperson has introduced a bill to alter the makeup of the agency with the expectation that doing so would result in the agency funding oil and

gas projects. Subjects in the legal treatment are told that someone has filed a lawsuit claiming that the method of appointing officers to the agency violates the Appointments Clause of the Constitution (Article II, Section 2, Clause 2), again with the expectation that properly appointed officers would favor oil and gas projects.[8]

All subjects were given several evenly balanced policy arguments for whether the agency should fund wind and solar energy versus oil and gas energy. All subjects also read an even number of legal arguments as to whether the appointments process was or was not constitutional. That is to say, subjects read legal arguments about the law regardless of whether they were in the legal or control group. The legal arguments were designed to strongly suggest that the manner in which the federal officers were appointed was inconsistent with the Appointments Clause's requirements. The legal controversy and arguments were modified from an almost identical legal controversy over the appointment process for officers of the Federal Election Commission, as discussed at length in the Supreme Court case *Buckley v. Valeo*, 424 U.S. 1 (1976).

To summarize, all subjects read about the same law, the same controversy, and the same legal and policy arguments about that controversy. Subjects in the political and legal treatment are given a nearly identical opportunity to alter the law so as to favor an outcome

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[8] The goal of this experiment is to determine if people can want to do one thing as a politician but feel constrained to do another as a judge. Past research on MTurk users indicates that they tend to be more liberal than the American population. Because I wanted to present subjects in the legal treatment with a dilemma wherein they favor one outcome for policy reasons but another for accuracy reasons, I opted to structure the scenario such that the incorrect legal outcome advances wind and solar energy (which presumably most MTurk users prefer) and the legally correct outcome advances oil and gas energy (which presumably most MTurk users do not prefer). Subsequent analysis of subjects' opinions confirms that most of them prefer wind and solar energy.

that advances oil and gas power. The legal arguments strongly suggest that the correct legal outcome is one that has the practical effect of favoring oil and gas power. If framing a question as a legal issue motivates subjects to prioritize accuracy goals, subjects in the legal treatment should be more likely to decide in favor of oil and gas than subjects in the control group regardless of their personal feelings about energy policy.

As in the first experiment, I assess subjects' opinions about energy policy through a post-experiment questionnaire using questions adapted from the Pew Research Center (Pew 2014). The questions asked subjects about whether the nation should prioritize policies that expand oil and gas energy or sustainable energy. I use subjects' answers to create an ordinal variable, *Energy Opinion*, that runs from 1 to 14 where 1 indicates the subject favors only sustainable energy policies and 14 indicates the subject prefers only oil and gas policies. Finally, I measure subjects' sophistication through the same 6 fact-based questions about politics and 5 fact-based questions about the law as in Experiment 1. I create a dichotomous variable, *Sophistication*, where subjects who get 9 or more questions correct (about one standard deviation above the mean number of correct answers) are deemed to be sophisticated (1) and those who get 8 or fewer correct are deemed to be not sophisticated (0).

I thus conduct a 2x2x2 experiment (*Legal Treatment* x *Energy Opinion* x *Sophistication*), which allows me to test whether subjects who are asked to think like a judge behave differently than subjects who are unconstrained in their evaluations. Per my first hypothesis, I expect that subjects' opinions about energy policy had less of an impact on their decisions in the *Legal Treatment* than they do in the control group. That is to say,

subjects who receive the legal treatment should be more likely to decide in favor of oil and gas energy while controlling for their personal opinions about energy policy. Per my second hypothesis, I expect that the *Legal Treatment* will have a less pronounced effect on sophisticated subjects because sophisticated subjects will be able to use the available legal arguments to justify a decision that aligns with their personal preferences.

Analysis and Results

I recruited 227 subjects between September and October of 2015.[9] The demographic characteristics of the subjects are available in Appendix A. My dependent variable is whether the subject decides to alter the composition of the agency (1), which would have the effect of advancing oil and gas energy, or if they opt to retain the composition of the agency (0), which has the effect of advancing wind and solar energy. I thus estimate a logit model. The three independent variables of interest are whether the subjects received the *Legal Treatment* (1) or not (0), the subjects' *Energy Opinion*, and whether the subjects are *Sophisticated* (1) or not (0). I interact these three variables with each other to determine if the Legal Treatment effect is the same across different opinions about energy policy and if it is the same for sophisticated and unsophisticated subjects.

Recall that both subjects in the legal treatment and in the control group have the opportunity to alter the composition of the agency and both were clearly informed that doing so would have the effect of favoring oil and gas energy over wind and solar energy. Recall also that the legal arguments strongly suggest that the correct legal answer is to rule

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[9] Only 163 subjects completed the full experiment and an additional 6 subjects were omitted from my final analysis because they looked up the answers to the knowledge-based questions.

that the appointment process was unconstitutional, i.e. to change the composition of the agency and as a result favor oil and gas energy. If framing the controversy as a legal question motivates subjects to pursue accuracy goals per my first hypothesis, there will be a positive relationship between the *Legal Treatment* variable and the dependent variable.

Table 2 provides the results from the model. Per my first hypothesis, the legal treatment had a significant and positive effect on subjects' responses. Holding the *Energy Opinion* variable to its mean and the sophistication variable to its mode (i.e. unsophisticated subjects), subjects in the legal treatment were about 50% more likely to render a pro-oil & gas verdict than their similarly situated peers in the control group (.62 versus .42). Simply being asked to think like a judge alters subjects' behavior.

Table 1.2: Probability of Pro-Oil and Gas Outcome

	Subjects' Respose
Legal Treatment	4.303**
	(1.529)
Energy Opinion	0.610**
	(0.215)
Legal Treatment × Energy Opinion	-0.567*
	(0.243)
Sophisticated	1.782
	(1.903)
Legal Treatment × Sophisticated	-4.889
	(2.509)
Sophisticated × Energy Opinion	-0.347
	(0.296)
Legal Treatment × Sophisticated × Energy Opinion	0.787*
	(0.395)
Constant	-4.075**
	(1.324)
Observations	157

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

As Figure 2 shows, however, there was a statistically significant interaction between the *Legal Treatment, Energy Opinion*, and *Sophistication* variables. Unsophisticated subjects who received the legal frame were about 62% likely to rule that the law was unconstitutional regardless of their personal opinion about energy policy

whereas there is a direct and linear relationship between the policy preferences and decisions made by unsophisticated subjects who received the political frame. In contrast, the legal frame did not seem to make much of a difference for sophisticated subjects. The right side of Figure 2 shows that there was a linear relationship between the policy preferences and decisions for sophisticated subjects who received either the legal or political frame.

Subjects' Decisions
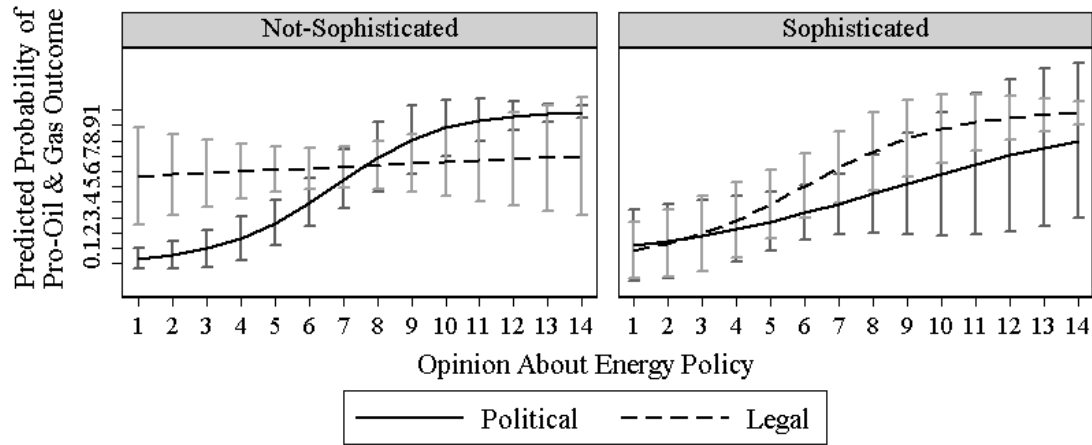
Figure 1.2 - Legal vs. Political Frame and Subjects' Decisions: The graph presents the predicted probability that a subject's ruling or vote will favor a pro-oil & gas outcome given the treatment (legal or political frame), the subject's personal opinions about energy policy, and whether the subject is sophisticated. The predicted probability of a pro-oi & gas outcome (as compared to a pro-wind & solar outcome) is shown along the y-axis. The subject's opinion about energy policy is shown along the x-axis, with lower values indicating that the subject favors wind & solar energy and higher values indicating that the subject favors oil & gas energy. The solid line shows the predicted probabilities of the subjects who received the political treatment and the dashed line shows the predicted probabilities of subjects who received the legal treatment. The spikes depict the 95 percent confidence intervals.

To better determine whether this confirms my second hypothesis, it is informative to look at how subjects justified their decisions. All subjects were asked to write a few sentences about why they decided to rule that the law was or was not constitutional (for the legal treatment) or why they voted to alter the agency or not (for the control group). To test

26

whether sophisticated subjects in the legal treatment were better able to justify their policy

preferences with available legal arguments than unsophisticated people, I compare the

mean number of characters they employed to justify their answers relative to other subjects.

Subject's Reasons for Decision
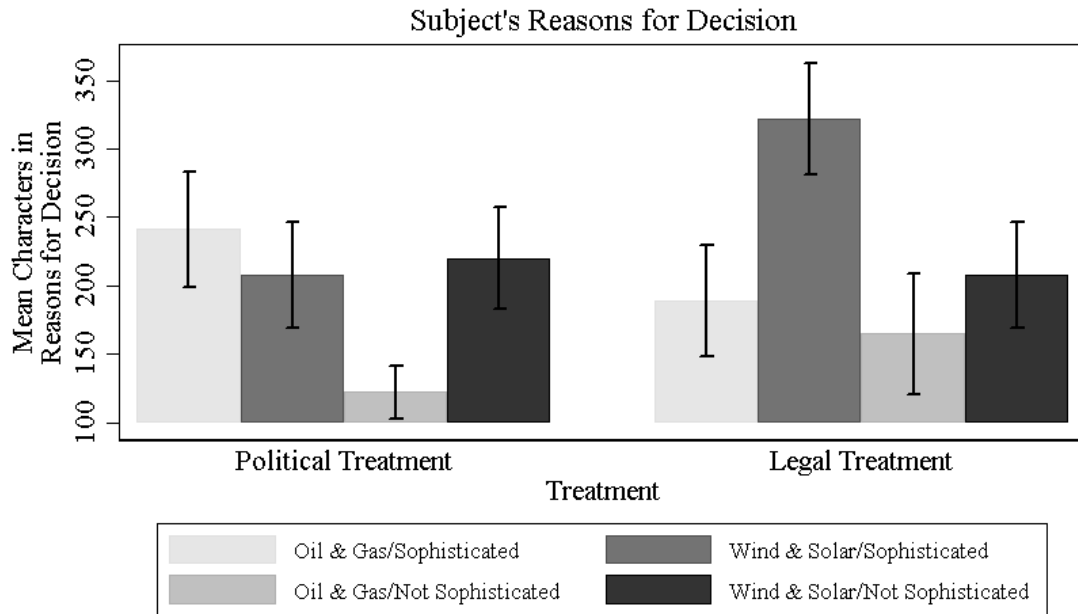
Figure 1.3 – Length of Subjects' Reasons for Decisions: The bar graph presents the mean number of characters that subjects used to explain or justify their decision broken out by whether the subject chose an outcome that favored oil & gas energy or wind & solar energy, by whether the subject was sophisticated or not, and by treatment group (political or legal). The bars represent the mean number of characters subjects within a particular sub-group used to justify their decision, and the lines indicate the standard error.

Figure 3 displays the mean number of characters that subjects used to justify their

decisions broken down by subjects' decisions, their sophistication, and whether they

received the legal treatment. Sophisticated subjects in the legal treatment who chose the

legally incorrect answer (i.e. pro-wind and solar) provided by far the longest justifications

for their decision (an average of about 322 characters). Presumably they expended more

effort in justifying their answer in an attempt to rectify the tension between wanting to

decide in a way that aligns with their attitudes and wanting to make a decision that is

accurate (Tetlock 1983).

Discussion

Experiment 2 reinforces and expands upon the findings from the first experiment. When provided with clear and persuasive arguments for the correct legal conclusion, subjects who were asked to think like a judge behaved differently than unconstrained and similarly situated subjects in the control group. All subjects received the same arguments as to what the Constitution requires when appointing officials to federal agencies. Subjects in the control group who were asked to pretend to be members of Congress could have given dispositive weight to those legal arguments. The fact that their policy preferences drove their decisions much more strongly than did the preferences of subjects in the legal treatment confirms my first hypothesis that thinking "like a judge" can encourage even lay people to engage in "bottom-up" reasoning in an attempt to hold accurate attitudes.

At the same time, the framing effect seems to be pronounced only for unsophisticated subjects. Sophisticated subjects in the legal treatment rendered legal verdicts that were much more closely aligned with their policy preferences and behaved almost identically to similarly situated subjects in the control group. The fact that they spent more time and energy attempting to justify their policy-driven decisions seems to confirm that they were interested in holding accurate beliefs but, in contrast to their unsophisticated peers, were better able to reconcile their understanding of the law with their personal preferences (Groenendyk 2013; Lodge and Taber 2013; Kahan et al. 2013; Lavine, Johnston, and Steenbergen 2012). It seems possible, then, that the law constrains only those who are unable to manipulate it.

This gives rise to the concern that sophisticated judges are merely politicians in robes who use legal reasoning to hide their politically-driven decisions. The next experiment more directly explores whether the effects of sophistication are distinct from the effects of professionalization when it comes to legal decision making.

Study 3: The Constitution, Energy Policy, and Legal Training

Justice Scalia frequently quipped that every judge should have a custom rubber stamp at their desk which reads "STUPID BUT CONSTITUTIONAL" (Senior 2013). Judges frequently must uphold the constitutionality of laws that they find personally distasteful (as Justice Thomas claimed he was doing in *Lawrence*). This experiment presents just such an opportunity. I modify the scenario involved in the second experiment so that the manner in which the officers are appointed to the agency via the Innovation Law is clearly constitutional but I stipulate that the officers have decided to fund only oil and gas projects. Because most subjects recruited through MTurk favor wind and solar energy, this provides an opportunity to determine if they will uphold the constitutionality of a law even if they find the policy results distasteful.

As an additional treatment, I recruit law students to participate in this experiment. The law students recruited by Kahan et al. (2015) were moderately influenced by the cultural identity of the litigant but, as the authors cautioned, the statutory interpretation problem they used was ambiguous and difficult. If, as I hypothesize, legal training and professionalization increases the probability that people engage in "bottom-up" reasoning when tackling a legal question, these law students should be distinctly constrained by strong legal arguments suggesting the manner of appointment is constitutional.

Study Design

The design of this experiment is nearly identical to the second experiment. Half the subjects are asked to pretend that they are judges (*Legal Treatment*) and the other half are asked to pretend to be politicians (which serves as the unconstrained control group) using the same framing text as the second experiment. All of the subjects then read about the same politically salient policy. I end the experiment by giving subjects in the legal treatment and in the control group an opportunity to alter the composition of the agency so as to favor wind and solar power.

Subjects in both the legal and control group groups read about the same fictional law involved in the second experiment. This law creates a federal agency that funds research for wind and solar power projects or oil and gas power projects. The key difference between this scenario and the one used in the second experiment is that the officers have been nominated but not yet confirmed to the agency. Subjects are told that the officers nominated to the agency have publicly declared their intent to direct all of the agency's funds for oil and gas projects.

Subjects in the control group were told that a Senator has urged his colleagues to reject the confirmation of the President's nominees with the expectation that doing so would result in the President nominating officers to the agency who will fund wind and solar research. Subjects in the legal treatment are told that someone has filed a lawsuit claiming that the method of nominating officers to the agency violates the Appointments Clause of the Constitution (Article II, Section 2, Clause 2), again with the expectation that properly nominated officers would favor wind and solar research. The lawsuit specifically

alleges that the President must seek the Senate's advice prior to nominating offers to an agency.[10]

All subjects were given several evenly balanced policy arguments for whether the agency should fund wind and solar energy versus oil and gas energy. All subjects also read an even number of legal arguments as to whether the nominating process was constitutional. That is to say, subjects read legal arguments about the law regardless of whether they were in the legal or control group groups. The legal arguments were designed to strongly suggest that the manner in which federal officers were nominated was consistent with the Appointments Clause's requirements.

To summarize, all subjects read about the same law, the same controversy, and the same legal and policy arguments about that controversy. Subjects in the control and legal treatment are given a nearly identical opportunity to alter the nominees to an agency so as to favor an outcome that advances wind and solar power. The legal arguments strongly suggest that the correct legal outcome is one that has the practical effect of favoring oil and gas power. If framing a question as a legal issue motivates subjects to prioritize accuracy goals, subjects in the legal treatment should be more likely to decide in favor of oil and gas than subjects in the control group regardless of their personal feelings about energy policy.

I employ identical methods of assessing subjects' energy policy preferences and sophistication as in the second experiment. In addition to recruiting subjects through

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[10] Legal analysis for this scenario is derived from "The Heritage Guide to The Constitution," available at http://www.heritage.org/constitution/#!/articles/2/essays/91/appointments-clause (last accessed on 6/13/2016).

MTurk, I recruit law students to participate via the same online platform. I recruited the law students from three law schools in a Midwestern metro area. Law students were contacted through a non-profit organization that funds and supports pro bono legal work for law students and lawyers. The students were told that, for each law student participant, $5 would be donated to the non-profit organization.

I thus conduct a 2x2x2x2 experiment (*Legal Treatment* x *Energy Opinion* x *Sophistication* x *Legal Training*), which allows me to test whether subjects who are asked to think "like a judge" behave differently than subjects who are unconstrained in their evaluations. Per my first hypothesis, I expect that subjects' opinions about energy policy will have less of an impact on their decisions in the *Legal Treatment* than they do in the control group. Per my second hypothesis, I expect that the *Legal Treatment* will have a less pronounced effect on sophisticated subjects because sophisticated subjects will be able to use the available legal arguments to justify a decision that aligns with their personal preferences. And per my third hypothesis, I expect that law students in the legal treatment will be much more likely to get the correct legal answer than lay subjects.

Analysis and Results

I recruited 269 subjects via MTurk in experiments run in November of 2015 and February of 2016[11] and 125 law students in April of 2016.[12] The demographic

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[11] 223 lay subjects completed the full experiment and an additional 5 subjects were omitted from my final analysis because they looked up the answers to the knowledge-based questions.

[12] 76 law student subjects completed the full experiment and an additional 2 subjects were omitted from my final analysis because they looked up the answers to the knowledge-based questions.

characteristics of the subjects are available in Appendix A. My dependent variable is whether the subject decides to alter the composition of the agency (0) or not (1). I thus estimate a logit model. The four independent variables of interest are whether the subjects received the *Legal Treatment* (1) or are in the control group (0), the subjects' *Energy Opinion*, whether the subjects are *Sophisticated* (1) or not (0), and whether the subject was a *Law Student* (1) or not (0). I interact these four variables with each other to determine if the *Legal Treatment* effect is the same across different levels of support for immigration, for sophisticated and unsophisticated subjects, and for subjects with and without legal training.

Recall that both subjects in the legal treatment and in the control group have the opportunity to alter the composition of the agency and both were clearly informed that doing so would have the effect of favoring wind and solar energy over oil and gas energy. Recall also that the legal arguments strongly suggest that the correct legal answer is to rule that the nomination process was constitutional, i.e. to retain the composition of the agency and as a result favor oil and gas energy. If framing the controversy as a legal question motivates subjects to pursue accuracy goals per my first hypothesis, there will be a positive relationship between the *Legal Treatment* variable and the dependent variable.

A four-way interaction between my variables proves problematic because of significant multicollinearity issues and because the interaction between the *Legal Treatment*, *Law Student*, and *Sophisticated* variables perfectly predicts the dependent variable. Further, analysis of the non-law student subjects indicates that, as in the first experiment, there was no statistically significant interaction between the *Sophisticated*

33

variable and the *Legal Treatment* and the model's fitness is improved by excluding that interaction. I thus estimate two separate models. The first model omits law students and effectively replicates the model estimated in my first experiment. The second includes *Law Students* but does not interact it with the *Sophisticated* variable. Table 3 provides the results from the model.

Table 1.3: Probability of Pro-Oil and Gas Outcome

	(1) Lay Subjects	(2) All Subjects
Legal Treatment	3.443***	3.377***
	(1.015)	(1.004)
Energy Opinion	0.518***	0.505***
	(0.121)	(0.120)
Legal Treatment × Energy Opinion	-0.341*	-0.336*
	(0.162)	(0.161)
Sophisticated	0.870**	0.633*
	(0.335)	(0.305)
Law Student		0.404
		(1.660)
Legal Treatment × Law Student		6.941*
		(3.098)
Law Student × Energy Opinion		-0.231
		(0.273)
Legal Treatment × Law Student × Energy Opinion		-0.607
		(0.415)
Constant	-4.298***	-4.126***
	(0.836)	(0.816)
Observations	218	292

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The *Legal Treatment* has a direct, positive, and significant impact in both models. Subjects who were asked to think like a judge in each model were much more likely to make a decision that favors oil and gas, indicating that they were persuaded by the strong legal arguments to suggest that a pro-oil and gas outcome was the correct legal outcome. Figure 4 demonstrates the effect of the *Legal Treatment* given subjects' opinions about energy policy and whether they were lay people or law students. The left hand graph demonstrates that lay subjects in the legal treatment were more likely to make a pro-oil and gas decision than their similarly situated peers in the control group. The right hand graph produces a similar but much stronger result – there is almost a perfect relationship between whether the law students were in the legal treatment or control group and how they responded to the scenario.
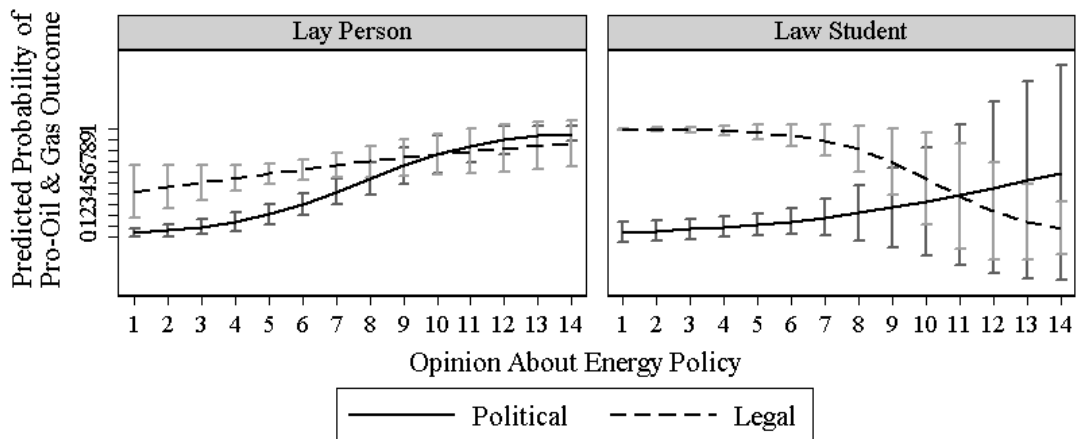
Subjects' Decisions

Figure 1.4 – Legal vs. Political Frame and Subjects' Decisions: The graph presents the predicted probability that a subject's ruling or vote will favor a pro-oil & gas outcome given the treatment (legal or political frame), the subject's personal opinions about energy policy, and whether the subject is a law student. The predicted probability of a pro-oi & gas outcome (as compared to a pro-wind & solar outcome) is shown along the y-axis. The subject's opinion about energy policy is shown along the x-axis, with lower values indicating that the subject favors wind & solar energy and higher values indicating that the subject favors oil & gas energy. The solid line shows the predicted probabilities of the subjects who received the political treatment and the dashed line shows the predicted probabilities of subjects who received the legal treatment. The spikes depict the 95 percent confidence intervals.

The results in the right hand graph of figure 4 can be explained by the fact that about 84% of law student subjects personally favored wind and solar energy over oil and gas energy.[13] Hence, 88% of law students in the control group made a decision that favored wind and solar power – they were unconstrained by legal considerations and felt free to make a decision that advanced their policy preferences. In contrast, only 9% of law students in the legal treatment rendered a verdict that favored wind and solar power despite the fact that the vast majority of them favored wind and solar power. The strong legal arguments suggesting that the nomination process was constitutional forced them to admit that the

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[13] 84% of law student subjects had scores of 7 or less on the *Energy Opinion* variable where lower scores on the 14-point scale indicate support for wind and solar power and higher scores indicate support for oil and gas power. This accounts for the large error bands for the predictions for law students' who favor oil and gas policy.

36

President's decision to nominate pro-oil & gas officers was "constitutional but stupid."

Discussion

The third experiment confirms and advances the findings from the second experiment. While there was no significant effect to sophistication, the legal frame that asks subjects to think like judges exerted a statistically significant and strong effect on subjects' behavior. Subjects in this experiment were asked to do what Justice Thomas claims to have done in *Lawrence v. Texas* and what Justice Scalia claims to have done frequently enough to require a stamp: declare that a law was "constitutional but stupid." Even lay subjects who lack any legal training were able to follow the strong legal arguments towards the correct answer despite the fact that the answer deviated from many of their personal policy preferences. This gives additional support to the hypothesis that the law can encourage "bottom-up" processing.

Finally, law student subjects in the legal treatment were distinctly capable of ignoring their personal opinions about energy policy, identifying strong legal arguments, and rendering correct legal judgments. Almost every single law student preferred wind and solar energy but almost every single law student in the legal treatment ruled that the nomination procedure was constitutional even though doing so had the result of favoring oil and gas energy. Even a relatively small amount of legal training[14] was sufficient to make them feel constrained by the law within their imagined role as judges.

It should be noted that, while the legal arguments were designed to persuasively

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[14] About 30% of law students in my sample had completed just one year of law school and about 42% of subjects had just one class on administrative or constitutional law.

argue that the nomination process was constitutional, the arguments did not present an open-and-shut case. The scenario was inspired by real legal analysis but it presented a relatively novel issue – whether the president must seek out the advice and consent of the Senate prior to nominating officers. Unlike the second experiment for which *Buckley* serves as clear precedent, the law students would not be aware of any binding legal precedent for this particular dispute. Even though they had some room to maneuver, when asked to think like a judge, law students feel constrained by strong legal arguments and are capable of engaging in "bottom-up" reasoning.

Discussion

The above experiments confirm my three hypotheses. In all three experiments, there was a statistically significant effect for my *Legal Treatment*. Subjects asked to think "like a judge" behaved in a distinct fashion from similarly situated subjects who were not: they were more likely to reach a conclusion supported by the legal arguments and less likely to make a decision that simply aligned with their personal preferences. The subjects' personal opinions did influence their behavior – thinking like a judge is not a panacea – but the results indicate a strong tendency to engage in "bottom-up" reasoning so as to achieve an accurate result even at the expense of one's preferences.

The difference in outcomes between the first experiment and the second two experiments most clearly displays this effect: While the Kahan et al. (2015) scenario involved a genuinely ambiguous statutory interpretation problem, my original experiments presented subjects with clear and persuasive arguments for a correct legal answer. Subjects' attitudes exerted much less of a pull on their decisions in the second two experiments than

they did the first, indicating that lay people, when given clear and strong arguments, can set aside their personal beliefs in favor of the accurate answer.

At the same time, my second and third experiments demonstrate the mediating factors that personal characteristics play in legal reasoning. Per my second hypothesis, the personal opinions of sophisticated subjects in the second experiment seemed to drive their legal decisions more than unsophisticated subjects. The length that sophisticated subjects went to justify their decisions indicate that they were likely just as concerned with holding an accurate opinion as unsophisticated subjects but were simply better able to convince themselves that the legally correct outcome was also the outcome that better matched their personal preferences. This classic example of motivated reasoning confirms past research into the effects of sophistication on persuasive messaging (Groenendyk 2013; Lodge and Taber 2013; Kahan et al. 2013; Lavine, Johnston, and Steenbergen 2012).

While sophisticated subjects may feel free to use the law as a "cloak" to hide their ideologically-driven decisions, the same was not true for legally trained subjects in my third experiment. Law students with as little as one year of legal training were almost perfectly able to identify the correct legal answer regardless of their personal beliefs. This could be because their socialization into the legal academy increases the effectiveness of a legal prime and hence the law students may have had a greater desire to get the correct legal answer. Alternatively, the legally correct outcome may have appeared that much more obvious to subjects with legal training such that they were unable to engage in effective motivated reasoning and to rationalize their way towards their preferred outcome.

These results give strong evidence in favor of my hypotheses but there are a number

of important weaknesses to consider as well. First, the experiments lack external validity. As Appendix A demonstrates, the subjects were not a nationally representative sample, limiting my ability to extrapolate these findings more generally. Further, none of the subjects were lawyers or judges, making it impossible to make inferences about how actual jurists would behave. Further, there is a question of internal validity as well. Subjects participating in an online experiment may not treat the legal controversy the same as if they were encountering a similar controversy in real life. It is possible that lay people reading about legal issues in a newspaper may not be as moved by similar primes as they were in this experiment. And certainly reading a short brief about a hypothetical legal controversy is very different from sitting through an actual case as a judge, again limiting my ability to make inferences about jurists' behavior.

Despite those weaknesses, this serves as proof of concept that the law, as a frame, is capable of priming people to prioritize accuracy goals and to engage in "bottom-up" reasoning. There were no policy consequences for rendering legal verdicts that ran counter to the subjects' policy preferences but, simultaneously, there were no tangible incentives for trying to get the correct legal answer either. The fact that, even without any promised reward or sanction, subjects tried to get the right legal answer suggests that the law can exert an internal pressure on people to think dispassionately about the evidence and to go where it leads.

These findings thus serve as additional confirmation that people can be motivated to hold accurate views and provide an additional method to induce it in an experimental setting. Further research can explore the cognitive mechanisms that explain why and when

thinking like a judge increases accuracy motivations. For example, experiments could explore whether legal primes trigger internalized notions of what the law is or ought to be and increase the salience of related concepts like objectivity and neutrality (Gibson, Lodge and Woodson 2014; Sunshine and Tyler 2003; Tyler 2003). Research may also explore whether thinking like a judge is identity protective, i.e. that priming the value of being even-handed and objective bolsters self-esteem and takes the sting out of making decisions that run counter to one's personal preferences (Sherman and Cohen 2002; Cohen, Aronson and Steele 2000; Sherman, Nelson and Steele 2000).

Steele (1988), for example, discusses an experiment in which subjects were asked to rank ten music albums and were told that they could keep their fifth ranked album. Half the subjects were then asked to don a lab coat before participating in a second, unrelated experiment and the other half proceeded to the second experiment sans lab coat. All subjects were then given a chance to rerate their album preferences. The design allows subjects to resolve the dissonance they felt between the desire to accurately rate their music preferences with their desire to strategically rate the albums so they could keep their most preferred album. Subjects who held a strong belief in the value of science were significantly less likely to reorder their rankings when they wore a lab coat compared to science-oriented subjects who did not wear a lab coat and compared to non-science oriented subjects who did or did not wear the lab coat. The lab coat primed the science-oriented subjects' belief in the value of objectivity and bolstered their sense of self-worth, reducing their need to resolve the dissonance between accuracy and directional goals. Further experiments could determine if legal symbols like judges' robes and gavels may prime law-oriented

individuals' belief in objectivity and neutrality and bolster their sense of self-worth as they make decisions that run counter to their personal opinions or beliefs.

In addition to exploring cognitive mechanisms that explain the relationship between accuracy motivations and thinking "like a judge," further research can explore whether certain personality traits mediate the relationship. For example, people high in need for cognition (Sargent 2004; Cacioppo and Petty 1982) or people who have high respect for the rule of law (Gibson and Caldeira 2009) may be better able to pursue accuracy goals when primed to think of an issue as a legal question. People high in such personality traits may also self-select into the legal academy (Kern and Bowling 2015) and go on to become judges.

These findings also suggest directions for further research on the courts and judicial behavior. In political science, the dominant models from court scholars typically focus on how judges' attitudes and ideological predispositions influence their decisions within strategic and institutional constraints (Segal and Spaeth 2002; Epstein and Knight 1998; Maltzman, Spriggs and Wahlbeck 2000). Although attitudinal and strategic models of judicial behavior are strongly predictive, there is a significant body of work to also suggest that judges care about the law as well (Songer and Link 2010; Songer, Ginn and Sarver 2003; Richards and Kritzer 2002; George and Epstein 1992), which perhaps helps explain the sometimes surprising number of unanimous decisions at the Supreme Court (Corley, Steigerwalk and Ward 2013). A strategic account of the Court could argue that the justices pursue legal goals in cases in which the ideological stakes are low so as to preserve the authority and legitimacy of the Court, but such explanations cannot discern whether the

justices actually believe in legal norms or whether they simply "find them useful" (Epstein, Landes and Posner 2012, 703).

This speaks to a larger failing of the rational-actor-based assumptions of the attitudinal and strategic models: they cannot distinguish between behaviorally equivalent outcomes. Although the outcome may be the same, there is an important normative difference between a world in which jurists consciously pursue ideologically predetermined outcomes but sometimes cynically balance that pursuit against concerns for institutional legitimacy and a world in which their desire to pursue ideologically driven outcomes is sometimes sincerely constrained by internalized legal norms. In short, both the attitudinal and strategic accounts of judicial behavior possess substantial predictive power but they do not reveal much about the psychological mechanisms involved in legal decision making. They can make predictions for judicial outputs based on certain inputs, but most judicial decision-making studies do not tackle the "black box" of judicial cognition.

There is now a growing body of research that conducts psychological experiments on judges (Kahan et al. 2015; Wistrich, Rachlinski and Guthrie 2015; Rachlinski et al. 2009; Guthrie, Rachlinski and Wistrich 2007). Making further strides in this direction can help court scholars explore the cognitive mechanisms of judicial decision making and can supplement and expand upon findings derived from observational studies. Building and testing a robust model of legal decision making, a model that is informed by theories and methods from social cognition, can help us better understand judicial behavior, not just predict it.

Conclusion

Law is not just prediction. Philosophers of jurisprudence may debate the existence or nature of a "higher law," and legal realists may question whether "positive law" is anything but a cloak for jurists' preferences, but these experiments indicate that the law, as a psychological construct, matters to people. Even when there are no incentives for being right or consequences for being wrong, people want to get the "right" legal answer when asked to think like a judge. This suggests that internalized norms about the law as a concept can create incentives to pursue accuracy goals over directional goals; to go where the evidence takes you, even at the expense of your own preferences and attitudes.

Chapter 2:   Automaticity and the Law

Ben Franklin (1779) suggested a method for objective decision making that requires the decision maker to think of all of the considerations relevant to the decision, to write them down in either a "pro" or "con" column on a sheet of paper, and then to identify considerations on both sides of the ledger that are of equal weigh to each other and cross them out. The decision maker has then only to tally up the remaining considerations, pro and con, and decide in favor of the option that has more remaining considerations. In the modern world we can imagine an ideal decision maker as operating like a computer as it works through Franklin's "moral algebra," objectively considering all of the relevant facts and reaching a decision that is supported by the weight of the evidence. But Franklin's moral algebra exhibits the type of ideal decision making that is as desirable as it is unattainable (Lodge and Taber 2013). In reality, people frequently put their thumbs on the scale when assigning weight to considerations so as to work towards their preferred outcome (Taber and Lodge 2006; Braman 2006; Redlawsk 2002; Ditto and Lopez 1992; Kunda 1990). More, there is evidence to suggest that totally irrelevant and incidental stimuli can influence both the value that people attach to individual considerations and the types of considerations people draw forth from their memories in the first place (Erisen, Lodge and Taber 2014; Petty et al. 1993). Real human decision making is not coolly rational but is "hot," impelled with affect and feeling and driven by automatic, subconscious processing (Lodge and Taber 2013).

This poses a problem for legal decision making. To the extent that we want judges to approximate ideal decision makers they should be capable of pursuing justice "blindly"

45

and should not be biased by their personal political beliefs (but see Segal and Spaeth 2002) or by their subconscious prejudices (but see Rachlinski et al. 2009). Legal norms require, and legal training aspires towards, something similar to Franklin's framework in which judges impartially tally up legal arguments on both sides of the case. But if people process legal decision-making tasks in the same fashion that they process social or political controversies, disagreement over the law would not simply be the product of judges doing "their sums" wrong (Holmes 1897, 998) but would instead be the product of fundamentally biased evaluations and analyses.

There is, however, a great deal of research to suggest that people in general can be motivated to pursue accuracy goals when making decisions (Bolson and Druckman 2015; Bolson, Druckman, and Cook 2014; Sherman and Cohen 2002; Kunda 1990; Tetlock 1983) and research in particular to suggest that thinking like a judge decreases the likelihood that a decision maker will consciously put their thumb on the scale when weighing the evidence (Kahan et al. 2015). There is less research, however, on whether people are *subconsciously* biased as they process legal considerations (but see Rachlinski et al. 2009). In particular, while we know a great deal about whether and when irrelevant, peripheral information can subconsciously influence people's thought processes, there is little research on how people can best avoid such forms of bias. In this article, I test whether the law can be used to improve people's decision making and in particular whether legal reasoning may dampen the effects of subconscious bias on the decision-making process.

In an online experiment, I test whether people who are induced to think "like a judge" will be more resistant to irrelevant, peripheral cues when evaluating a legal

controversy than similarly situated subjects evaluating an almost identical political controversy. As the previous chapter suggested, framing an issue as a legal question can increase accuracy motivations and decrease "top-down" reasoning. The results from my experimental test in this chapter demonstrate that irrelevant biasing information influences lay subjects' legal evaluations as much as it does the political evaluations of subjects in a control group, suggesting that legal decision making among lay people is not fundamentally different from traditional social cognition and that it does not offer protection against forms of subconscious bias.

In the next section I lay out the theoretical background for my experiment as well as my main hypotheses. I then describe my experimental design and the results. I conclude by discussing the results and the implications of these results both for the study of psychology and cognition and for the study of judicial behavior.

Theory and Hypotheses

There is a great deal of research to suggest that much of human thought occurs below the level of conscious awareness and that many of our decisions, attitudes, and behavior are driven by subconscious and automatic processes. Studies have shown, for example, that subliminally primed treatments of which subjects are consciously unaware can influence subjects' attitudes and behavior. For example, subliminally primed smiling or frowning faces can influence how much people like random ideographs (Murphy and Zajonc 1993) and subliminally primed cartoon faces can influence people's evaluations of political candidates (Lodge and Taber 2013); subliminally primed names of trusted friends can influence how much subjects are willing to trust a stranger (Huang and Murnighan

47

2010); subliminally primed lucky numbers increase the likelihood subjects will participate in a lottery or make risky investments (Jiang, Cho, and Adaval 2009); and subliminally primed words associated with stereotypes about old people can even influence how old one feels (Hausdorff et al. 1999). Post-conscious primes (information that people are consciously aware of but unaware of how it influences their reasoning process) have been shown to influence people's attitudes and behavior as well. For example, showing people words with positive connotation for risk seeking behavior makes them more risk seeking in turn (Erb, Bioy, and Hilton 2002); reminding women of their gender can increase their preference for the arts over math (Steele and Ambady 2005); and people whose polling places are located in a school are more likely to vote for school-funding initiatives (Berger, Meredith, and Wheeler 2008). The power of subconscious information processing is such that people can tell within a second which political candidate is more likely to win a race simply by looking at their faces (Todorov et al. 2005).

The dominant role that the subconscious mind plays in influencing our thoughts and behavior is likely an evolved trait. For example, humans are naturally more attuned to negative information and attitudes (Bizer and Petty 2005) and can more quickly recognize negative words in subconscious priming tasks than positive words (Dijksterhuis and Aarts 2003). Scholars have argued that this negativity bias (Rozin and Royzman 2001) is derived from our evolutionary need to detect and avoid threats in the wild: "Being a few hundred milliseconds late in detecting a lion is extremely dangerous, whereas being a little late in detecting edible vegetation is not so problematic" (Dijksterhuis and Aarts 2003, 14). Scholars have begun to identify biological mechanisms and markers that may connect the

dots between theoretically evolved adaptations and actual cognitive behavior. Scholars, for example, have found evidence that physiological sensitivity to threat correlates with political support for socially protective policies (e.g. patriotism and support for military spending) (Oxley et al. 2008). Behavioral geneticists have even demonstrated that personality, attitudes, and political preferences may be influenced by genetics. Studies have shown, for example, that monozygotic twins (i.e. "identical" twins) are more likely to share personality traits and political preferences than are dizygotic twins (i.e. "fraternal" twins) (Alford, Funk, and Hibbing 2005).

People are hardwired to automatically identify and process information. Often, this entails a distinct evolutionary advantage. You know how to catch a ball without conducting differential calculus on the fly (Gigerenzer 2007) and know to flinch from a snake without first having to search your long term memory for whether it is poisonous (Haidt 2012). Sometimes, however, automatic and subconscious processes can produce results that we would consciously deem to be maladaptive or irrational. There is a plethora of examples of simple mistakes people make because of intuitive and quick thinking, including anchoring effects (Tversky and Kahneman 1974), hindsight bias (Guthrie, Rachlinski, and Wistrich 2007), the availability heuristic (Tversky and Kahneman 1973) or the halo effect (Nisbett and Wilson 1977). More disturbingly, people's implicit racial attitudes might subconsciously influence their behavior in ways that they would consciously deem to be inappropriate (Dovidio, Gaertner, and Kawakami 2002; McConnell and Leibold 2001).

In this chapter I focus specifically on a form of subconsciously generated bias that has been labeled "affect transfer" (Lodge and Taber 2013) or the "misattribution of affect"

(Jones, Fazio, and Olsen 2009; Schwarz and Clore 1983). Lodge and Taber (2013) provide an example of affect transfer in one notable experiment in which they subliminally prime subjects with cartoon images of smiling or frowning faces before giving subjects information about a hypothetical political candidate. They demonstrate that the positive (negative) affective charge associated with the smiling (frowning) faces influence subjects to like (dislike) the political candidate. This can happen directly by making an affective association between the image and the candidate or indirectly by influencing the downstream retrieval of considerations that inform the subjects' conscious deliberation over the candidate (what Lodge and Taber label "affect contagion"). A subliminally primed smiling face, for example, should directly and positively influence a subject's evaluation of a candidate similar to how classical Pavlovian conditioning operates (Jones, Fazio, and Olsen 2009) and should indirectly influence the subject's evaluations by increasing the odds that the subject will conjure up positive thoughts and memories associated with the candidate (see also Petty et al. 1993). Whether direct or indirect, this form of subconscious processing is undeniably inconsistent with a normative view of an ideal decision maker – a subliminally primed smiling face is logically irrelevant to almost any conceivable decision-making task and the fact that it can influence people's evaluations is troubling.

The question becomes, then, how people can avoid this form of subconscious bias. Petty and Cacioppo (1986) argue that when people are motivated to process information and scrutinize arguments, peripheral cues will have less impact on people's evaluations (see also Guthrie, Rachlinski, and Wistrich 2007). Several studies support the argument that subjects who are in a "low elaboration" state, i.e. subjects who have little incentive to

think consciously or effortfully, are more influenced by peripheral cues than are subjects who are in a "high elaboration" state. For example, Albarracìn and Kumkale (2003) show that low elaboration subjects, but not high elaboration subjects, are more convinced by a persuasive message after drinking a sweet soda than after drinking a bitter soda[15] and Gorn (1982) shows that low elaboration subjects, but not high elaboration subjects, are more likely to be influenced by advertisements that feature pleasant music compared to the same advertisements without any music. Petty and Cacioppo (1986) stipulate that people must be both able and motivated to engage in systematic processing and that absence of either condition will lead to more peripheral routes of persuasion.

As the previous chapter suggests, asking subjects to think "like a judge" motivates them to pursue accuracy goals and engage in more central routes of persuasion akin to Petty and Cacioppo's (1986) high elaboration subjects. Such subjects are able to identify strong legal arguments in an attempt to get the right answer to a legal question even if that answer deviates from their personal preferences. I suggest in the previous chapter that the law operates as a prime designed to increase the perceived value of holding accurate beliefs and that legal decision making can be identity-protective (Sherman and Cohen 2002; Cohen, Aronson, and Steele 2000; Sherman, Nelson, and Steele 2000). As stated above, then, the loss of self-esteem that results from accepting arguments that run counter to one's own beliefs is offset by an increase in self-esteem for making an even-handed and objective judgment that is consistent with a legitimate source of authority. Per my first chapter, I thus

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[15] Albarracìn and Kumkale actually demonstrate that there is a curvilinear relationship between affect transfer and ability/motivation to elaborate. Subjects who have low ability *or* low motivation, but not both, were influenced by incidental affect.

hypothesize that subjects, when asked to think like a judge, will pursue accuracy goals in an attempt to get the "right" answer to a legal question and not just pursue whichever outcome best aligns with their personal preferences.

> **H1:** Being asked to think "like a judge" will increase accuracy motivations. Subjects who are asked to think like a judge will be persuaded by strong legal arguments even if such arguments run counter to their policy preferences.

If people engaging in legal decision making are more likely to pursue accuracy goals, legal decision making may also insulate people from the biasing effects of peripheral cues. Such a result would suggest that legal decision making is, as a rule, substantively different from typical political or social cognition. Legal decision making would be akin to "cold cognition," a relatively rare form of purely rational, conscious, and unbiased decision making in which people operate similarly to a computer engaging in Franklin's moral algebra (Taber and Lodge 2006).

> **H2:** Subjects who engage in legal decision making should be less influenced by irrelevant, affectively charged primes than are subjects in a control group.

Confirmation of this hypothesis would indicate, per Petty and Cacioppo (1986), that legal decision making entails more scrutinizing, systematic processing of information which consequently dampens peripheral routes to persuasion. Failure to confirm this hypothesis would indicate that legal cognition does not necessarily require a "high elaboration" state or that legal decision makers are not engaging in purely rational, conscious, and unbiased decision making. It would suggest that, while legal decision making can encourage people to try to get the right answer, they are still doing so through

fundamentally similar cognitive pathways as traditional social cognition.

Experimental Design

To test these hypotheses, I conduct an experiment. The experiment was hosted online using Qualtrics Online Survey Solutions (Qualtrics) and subjects were recruited via Amazon Mechanical Turk (MTurk). As discussed in the first chapter, MTurk is widely used in political science research and studies have verified that MTurk subjects are more representative of the U.S. population than many forms of convenience samples and that results from MTurk studies mirror those of studies conducted through more traditional means (Berinsky, Huber, and Lenz 2012). I provide information about the demographic characteristics about the subjects in Appendix A.

The basic experimental design I employ to test these hypotheses is an extension of previous research in the first chapter. Recall that I employed a novel framing technique to encourage subjects to pursue accuracy goals during an experiment. Instead of telling subjects that they would have to justify their answers to a stranger to induce accuracy motivations (see, e.g., Bolson and Druckman 2015; Bolson, Druckman, and Cook 2014; Tetlock 1983), I asked subjects to pretend to be judges and gave some short descriptive text explaining how judges are expected to behave. My results indicate that asking subjects to think like a judge motivates them to identify strong legal arguments and to make decisions in line with the weight of legal evidence even if those decisions support outcomes that run counter to the subjects' personal preferences.

I add to this basic experiment a treatment designed to subconsciously bias subjects' evaluations. After giving informed consent, half of the subjects are shown an image that

has a random number inserted in the upper left corner and asked to type that number into a field. MTurk studies frequently contain similar tasks to determine if subjects are carefully reading instructions (Hauser and Schwarz 2016). Instead of serving as an "attention check," this image actually serves as a key experimental treatment: the image, which features a black and white landscape and smoke rising from an oil refinery, was selected because it was ranked as being very negative in a pretest. Multiple studies suggest that people are more attuned to negative information and sensitive to negative primes (Dijksterhuis and Aarts 2003; Rozin and Royzman 2001).[16] The image thus serves as negative prime (*Prime Treatment*) meant to bias subjects' evaluations. The expectation is that the negative affect associated with the image should subconsciously color the subjects' subsequent evaluations (Lodge and Taber 2013; Jones, Fazio, and Olsen 2009).

As in the original experiment, I next ask half the subjects to pretend that they are judges (*Legal Treatment*). The other half are asked to pretend to be a politician, which serves as the unconstrained control group.[17] All of the subjects then read about the same

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[16] I also utilized a positive image but it failed to produce any effect, indicating that it did not operate as an effective prime. I hence limit my analysis to the behavior of subjects who received the negative image prime relative to those who were not shown any image.

[17] The framing text that I use is presented below and the full text of the experiment can be found in Appendix B.

> **Legal Frame:** In this scenario, pretend you are a Federal District Court Judge. You are tasked with determining whether a federal law is consistent with the constitution. In making your decisions, try to consider only the facts presented in the following excerpts from a brief on the topic. Your decisions should be based on your understanding of constitutional law and the relevant legal principles presented in the brief. A judge should be faithful to the law and should not be swayed by partisan interests, public opinion, or fear of criticism

politically salient scenario used in the original experiment that features a dispute about the President's nominees to a federal agency. I end the experiment by asking the participants in the legal treatment to rule on the constitutionality of the President's nominations and subjects in the control group to vote on whether to confirm the nominees. Subjects who receive the negative prime should be predisposed to dislike the President's nominees which should, all things being equal, make them more likely to rule that the nomination is unconstitutional (for the legal treatment) or to vote against confirming them (for the political treatment). Whether "all things are equal" will serve as the key test of my hypotheses.

Study Design[18]

Subjects in both the legal and control group groups read about the same fictional law called the Innovation Law. This law creates a federal agency that funds research for wind and solar power projects or for oil and gas power projects. Subjects are told that officers have been nominated for the agency but not yet confirmed. Subjects are told that the officers nominated to the agency have publicly declared their intent to direct all of the agency's funds for oil and gas projects.

Political Frame: In this scenario, pretend you are a Congressperson. You are tasked with determining whether to alter a federal law. In making your decisions, try to consider only the facts presented in the following excerpts from a brief on the topic. Your decision should be based on whatever issues and principles you feel are most important to consider within your role as a Congressperson.

[18] Large portions of the description of the study design is taken directly from the first chapter.

Subjects in the control group are told that a Senator has urged his colleagues to reject the confirmation of the President's nominees with the expectation that doing so would result in the President nominating officers to the agency who will fund wind and solar projects. Subjects in the legal treatment are told that a Senator has filed a lawsuit claiming that the method of nominating officers to the agency violates the Appointments Clause of the Constitution (Article II, Section 2, Clause 2), again with the expectation that properly nominated officers would favor wind and solar. The lawsuit specifically alleges that the President must seek the Senate's advice prior to nominating offers to an agency.[19]

All subjects were given several evenly balanced policy arguments about whether the agency should fund wind and solar energy versus oil and gas energy. All subjects also read an even number of legal arguments as to whether the nominating process was constitutional. That is to say, subjects read legal arguments about the nominating process regardless of whether they were in the legal or control group groups. The legal arguments were designed to strongly suggest that the manner in which federal officers were nominated was consistent with the Appointments Clause's requirements.

To summarize, all subjects read about the same law, the same controversy, and the same legal and policy arguments about that controversy. Subjects in the control and legal treatment are given a nearly identical opportunity to alter the nominees to the agency so as to favor an outcome that advances wind and solar power. The legal arguments strongly

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[19] Legal analysis for this scenario is derived from "The Heritage Guide to The Constitution," available at http://www.heritage.org/constitution/#!/articles/2/essays/91/appointments-clause (last accessed on 6/13/2016).

suggest that the correct legal outcome is one that has the practical effect of favoring oil and gas power. Per my first hypothesis and my original findings, the legal framing text should motivate subjects to prioritize accuracy goals and hence subjects in the legal treatment should be more likely to decide in favor of oil and gas than subjects in the control group regardless of their personal feelings about energy policy.

The incidental affect associated with the negative image prime should induce subjects to dislike the Innovation Law and the President's nominees, making it more likely that subjects will act to block those nominations. If thinking "like a judge" dampens the effects of affect transfer, the negative image prime will have less influence over subjects' legal evaluations than it does over the political evaluations of similarly situated subjects in the control group. Per my second hypothesis, then, subjects in the legal treatment should make the same decision as to whether the nomination was constitutional regardless of whether they saw a negative image or not whereas subjects in the control group should be more likely to reject the nominees if they first saw the negative prime.

Per the original experiment, I assess subjects' opinions about energy policy through a post-experiment questionnaire using questions adapted from the Pew Research Center (Pew 2014). The questions asked subjects about whether the nation should prioritize policies that expand oil and gas energy or to reduce energy consumption and prioritize sustainable energy. I use subjects' answers to create an ordinal variable, *Energy Opinion*, that runs from 1 to 14 where 1 indicates the subject favors only sustainable energy policies and 14 indicates the subject prefers only oil and gas policies. The questions I utilize can be found in Appendix C.

Finally, I measure and control for subjects' sophistication. Past research has suggested that affect transfer is mediated by political sophistication. Some scholars argue that affective cues have greater impact on low-knowledge people than high-knowledge people. An affective cue may not influence an evaluation as much when the subject is knowledgeable because the cue has to compete with more and stronger considerations (Cacioppo et al. 1992). Similarly, low-knowledge individuals may lack the motivation or ability to think effortfully about a question, leaving more room for peripheral routes to persuasion (Petty and Cacioppo 1986). Lodge and Taber (2013), in contrast, argue that affective cues should affect sophisticated subjects more because an affectively charged stimulus can contaminate a denser and better connected network of considerations than in unsophisticated subjects, triggering a more substantial snowball of affectively congruent considerations.[20] While the literature is ambivalent as to how sophistication will impact subjects' behavior, it is consistent in suggesting that models should control for sophistication. I assess subjects' sophistication through 6 fact-based questions about politics and 5 fact-based questions about the law.[21] I create a dichotomous variable,

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[20] In my original experiment, I also hypothesized that sophisticated people would be able to better rationalize legal decisions that aligned with their personal preferences, satisfying their desire both to defend their personal beliefs and to hold accurate beliefs (Groenendyk 2013; Lodge and Taber 2013; Kahan et al. 2013; Lavine, Johnston, and Steenbergen 2012; Petty and Cacioppo 1986, 78). Experimental tests provided tentative but mixed support for the hypothesis that sophistication mediates the extent to which the law induces accuracy goals. I include sophistication as a covariate in my experiment and interact it with the key variables of interest to test for any mediated effects, but my main hypotheses and theoretical questions are not driven by any particular sophistication effect.

[21] Per Motta, Callaghan, and Smith (2016), I explicitly ask subjects to not look up the answers and I also embed a question designed to detect "cheaters," i.e. subjects who look up answers online, by asking an open-ended question for the date to an obscure Supreme Court case (*Von Moltke v. Gillies*). Subjects who correctly identify the date of the case are

Sophistication, where subjects who get 9 or more questions correct (about one standard deviation above the mean number of correct answers) are deemed to be sophisticated (1) and those who get 8 or fewer correct are deemed to be not sophisticated (0). These questions are located in Appendix C.

I thus conduct a 2x2x2x2 experiment (*Image Prime* x *Legal Treatment* x *Energy Opinion* x *Sophistication*), which allows me to test whether subjects who are asked to think "like a judge" are less impacted by negative primes while controlling for subjects' personal beliefs and political sophistication.[22] Per my hypothesis, I expect that the legal framing text will increase subjects' accuracy motivations and that the negative prime will have less of an impact on subjects' decisions in the *Legal Treatment* than they do in the control group.

Analysis and Results

I recruited 494 subjects via MTurk in experiments run in the November of 2015 and February of 2016.[23] My dependent variable is whether the subject decides to preserve the composition of the agency (0) or not (1). I thus estimate a logit model. The four independent variables of interest are whether the subjects' received the negative *Image Prime* (1) or not (0), whether the subjects' were in the *Legal Treatment* (1) or are in the

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presumed to be using the internet to find the answers. Their responses are omitted from my analysis.

[22] I varied whether subjects were asked demographic questions, knowledge questions, and questions about their opinions on energy policy either at the beginning or end of the experiment. Analysis suggests that the ordering of the questions does not impact subjects' responses to the experimental prompt nor did the ordering impact subjects' answers to those questions.

[23] 432 subjects completed the full experiment and an additional 6 subjects were omitted from my final analysis because they looked up the answers to the knowledge-based questions.

control group (0), the subjects' *Energy Opinion*, and whether the subjects are *Sophisticated* (1) or not (0). I interact these four variables with each other to determine if the effect of the *Image Prime* is the same for subjects who are engaging in legal decision making versus unconstrained decision making; the same across different opinions about energy policy; and the same for sophisticated and unsophisticated subjects.

There is no statistically significant interaction between subjects' sophistication and the other variables and there is very strong support for estimating a model that omits that interaction. I hence estimate a model that controls for sophistication but does not interact it with the other variables of interest. Additionally, there was no statistically significant interaction between the *Image Prime* and the other variables. I discuss the theoretical significance of that finding below and estimate and report the results of a separate model to demonstrate the independent and direct effect that the prime had on subjects' evaluations in Table 1, below.

Table 2.1: Probability of Pro-Oil and Gas Outcome

	Full Model	Image Prime Separate
Legal Treatment	3.524***	3.355***
	(1.023)	(0.689)
Energy Opinion	0.533***	0.369***
	(0.122)	(0.084)
Legal Treatment × Energy Opinion	-0.348*	-0.336**
	(0.164)	(0.109)
Image Prime	1.614	-0.490*
	(1.116)	(0.220)
Legal Treatment × Image Prime	-0.529	
	(1.409)	
Image Prime × Energy Opinion	-0.354*	
	(0.174)	
Legal Treatment × Image Prime × Energy Opinion	0.076	
	(0.228)	
Sophistication	1.090***	1.023***
	(0.241)	(0.237)
Constant	-4.479***	-3.447***
	(0.827)	(0.572)
Observations	426	426

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Both models demonstrate that subjects' opinions about energy policy were significantly related to their decisions. Higher scores for *Energy Opinion* (i.e. being more

in favor of oil and gas energy) are associated with an increase in the probability of deciding to preserve the composition of the agency (i.e. deciding in favor of oil and gas energy). Recall that the correct legal outcome – ruling that the nomination process was constitutional – would preserve the composition of the agency and would have the effect of advancing oil and gas energy. The negative coefficient for the interaction between the *Legal Treatment* and *Energy Opinion* variables means that subjects' opinions about energy policy mattered less in the legal treatment than in the control group. The results thus indicate that subjects who are asked to think like a judge are in fact more likely to decide to preserve the composition of the agency and were able to make the correct legal decision even if that decision ran counter to their policy preferences. This confirms my original results and my first hypothesis.

Figure 1 clearly illustrates the extent to which subjects' behavior differed between the legal treatment and the control group. In the control group, subjects' decisions to alter or preserve the composition of the agency are driven almost entirely by their preferences over energy policy – subjects who favor wind and solar energy were more likely to reject the nominees (which would have the effect of advancing wind and solar energy) and subjects who favor oil and gas energy were more likely to vote to confirm the nominees (which would have the effect of advancing oil and gas energy). Subjects in the legal treatment, however, were about 52% likely to rule that the method of nomination was constitutional (which preserves the composition of the agency and has the effect of advancing oil and gas energy) regardless of their personal convictions about energy policy. Subjects in the legal treatment were not unanimously correct in their assessment of what

62

the Constitution requires but, per my original results, their behavior is markedly different than similarly situated subjects in the control group.

Figure 2.1 - Legal vs. Political Frame and Subjects' Decisions: The graph presents the predicted probability that a subject's ruling or vote will favor a pro-oil & gas outcome given the treatment (legal or political frame) and the subject's personal opinions about energy policy. The predicted probability of a pro-oi; & gas outcome (as compared to a pro-Wind & Solar outcome) is shown along the y-axis. The subject's opinion about energy policy is shown along the x-axis, with lower values indicating that the subject favors wind & solar energy and higher values indicating that the subject favors oil & gas energy. The solid line shows the predicted probabilities of the subjects who received the political treatment and the dashed line shows the predicted probabilities of subjects who received the legal treatment. The whiskers depict the 95 percent confidence intervals. Sophistication and the Image Prime were set to zero.

The basic theory of affect transfer suggests that the negative image should predispose subjects to dislike the Innovation Law and the President's nominees. In model 2, the image prime does indeed have a statistically and substantively significant negative effect. The difference in probability of a pro-oil and gas outcome between subjects who did and did not see the negative image was about 7% (13% compared to 20%) while setting *Energy Opinion* to its mean and the *Legal Treatment* and *Sophistication* variables to 0. Seeing a negative image of a polluting oil refinery decreases the odds of reaching a pro-oil

and gas outcome by about the same amount as a one-unit decrease in the *Energy Opinion* variable.

While being asked to think like a judge limits the extent to which policy opinions influence the decision-making process, thinking like a judge seemingly does not limit the biasing effect of incidental and irrelevant affective cues. In model 1, there is no statistically significant interaction between the *Image Prime* and the *Legal Treatment*, suggesting that the prime is just as influential for subjects in the legal treatment as in the control group. I thus reject my second hypothesis. Using estimates from the first model, Figure 2 illustrates the interactive effect of the *Image Prime* on subjects' evaluations in both the legal treatment and control group.

Subjects' Decisions
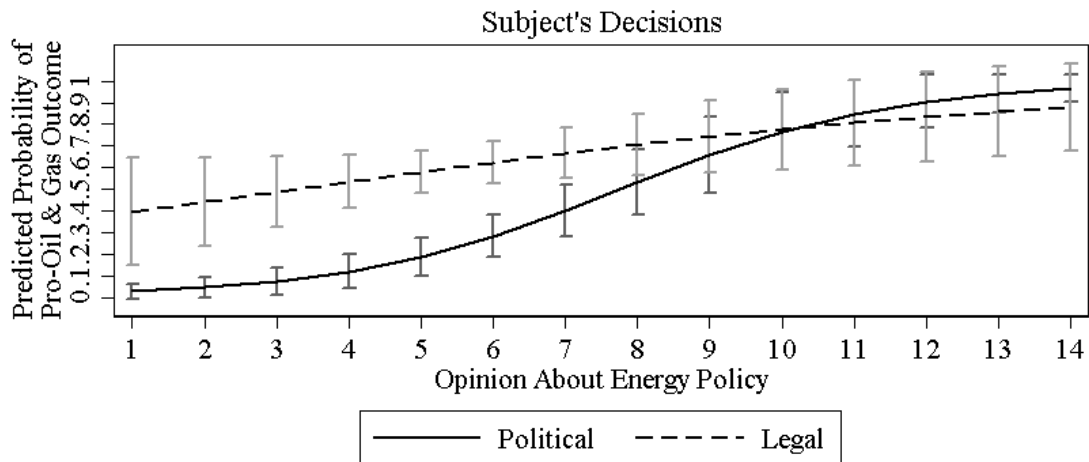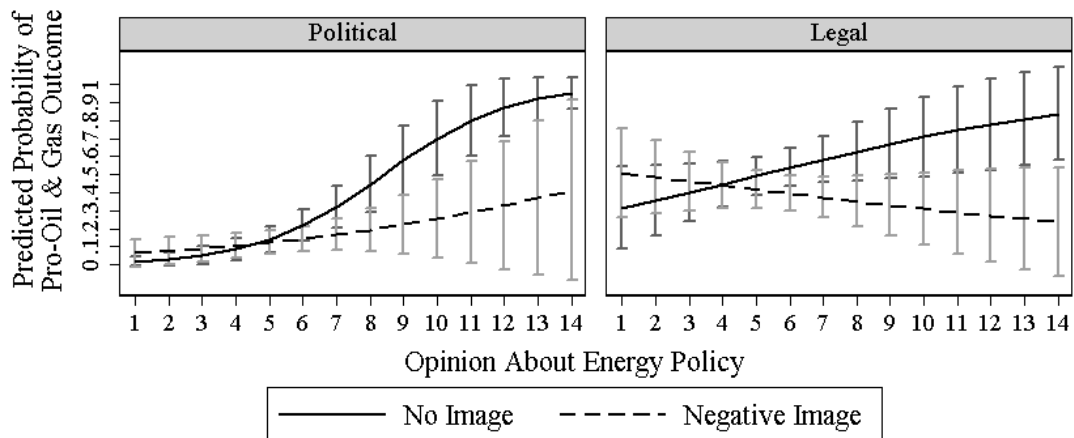

Figure 2.2 - **Image Priming and Subjects' Decisions**: The graph presents the predicted probability that a subject's ruling or vote will favor a pro-oil & gas outcome based on whether the subject received the negative image prime, the subject's personal opinions about energy policy, and the legal treatment (legal or political frame). The predicted probability of a pro-oi & gas outcome (as compared to a pro-wind & solar outcome) is shown along the y-axis. The subject's opinion about energy policy is shown along the x-axis, with lower values indicating that the subject favors wind & solar energy and higher values indicating that the subject favors oil & gas energy. The solid line shows the predicted probabilities of the subjects who were not shown any image and the dashed line shows the predicted probabilities of subjects who were shown a negative image. The whiskers depict the 95 percent confidence intervals. Sophistication was set to zero

As the figure 2 demonstrates, subjects who received the negative prime were more likely to rule that the nomination process was unconstitutional or to reject the President's nominees while controlling for their opinions about energy policy. The biggest impact, unsurprisingly, appears to be for those subjects who prefer oil and gas energy. Subjects in the control group who favor wind and solar energy were much more likely to reject the President's nominees and hence were little influenced by the addition of the negative prime. Subjects in the control group who prefer oil and gas energy, however, were much more likely to reject the nominees if they received the negative prime even though doing so advances wind and solar energy. Notably, subjects in the legal treatment and who personally prefer oil and gas energy were more likely to rule that the nomination process was unconstitutional if they received the negative image prime. Seeing a negative image

65

predisposed them to dislike the nominees enough that they made a decision that advances a policy which they are against *and* which is legally incorrect.

Discussion

These results mirror other studies on affect transfer (Lodge and Taber 2013; Jones, Fazio, and Olsen 2009; Schwarz and Clore 1983). In theory, when subjects read about the President nominating officers pursuant to a new federal law, the negative affect associated with the bleak image should predispose them to dislike the nominees and the law. This may occur directly or indirectly. The image may evoke negative emotions and the subjects may make a direct and automatic association between those feelings and the Innovation Law and the President's nominees. The negative feelings elicited by the image may also contaminate the subjects' thought retrieval process so that, as they canvassed their memory for considerations relevant to the experimental prompt, subjects were more likely to draw upon negative considerations (Lodge and Taber 2013; Petty et al. 1993). The results were consistent with those theoretical expectations. Subjects who received the negative image prime were more likely to reject the President's nominees or rule that the nomination process was unconstitutional than similarly situated subjects who did not receive the prime.

Of note, the effect of the negative prime influences subjects regardless of whether they were in the control group or received the legal treatment. This suggests that legal decision making does not dampen the effects of affect transfer, disconfirming my second hypothesis. A black and white photograph of a polluting oil refinery is not relevant to whether the Appointments Clause of the Constitution requires the President to seek the Senate's advice prior to nominating offers to federal agencies but the image nonetheless

66

altered subjects legal conclusions. Subjects in the legal treatment who personally favor oil and gas energy (i.e. had *Energy Opinion* scores between 8 and 14) were between 65 and 75% likely to rule that the nomination process was unconstitutional if they received the negative prime, an outcome that both deviates from the law and the subjects' personal preferences. The fact that a legally irrelevant but affectively charged image can influence subjects' legal evaluations suggests that automatic and subconscious thought processes played a role in their decisions.

This poses a riddle because the results also indicate that subjects in the legal treatment were generally pursuing accuracy goals. Compared to similarly situated subjects in the control group, subjects who were asked to think like judges were much more likely to decide in favor of oil and gas energy – i.e. to make the legally correct decision – even if doing so deviated from their personal opinion about energy policy. The strong legal arguments compelled them to rule that the nomination process was constitutional. The ability to recognize strong arguments relative to weak arguments suggests, per Petty and Caccioppo (1986), that thinking like a judge motivates subjects to operate in a "high elaboration" state. But despite supposedly engaging in central routes of information processing these subjects were still influenced by peripheral cues.

A post-hoc analysis indicates that subjects in the legal treatment did not take longer to read through the scenario than subjects in the control group nor did they supply longer justifications for their decisions. This suggests that being asked to think like a judge may encourage subjects to pursue accuracy goals without motivating them to scrutinize information more or to engage in more thorough deliberation. Instead, these subjects may

have been engaging in a search for heuristic cues as to which outcome is legally correct (Chaiken and Eagly 1989). Like the proverbial cognitive miser (Petty and Cacioppo 1986), these subjects may have wanted to reach an accurate conclusion as efficiently as possible, which left them open to influence from irrelevant peripheral cues.

It is important to consider if any weaknesses of this study may explain or attenuate my findings. First, the manipulation may not have been sufficiently strong to overcome the biasing effects of the image. Results indicate that subjects were attempting to get the correct legal answer or to think "like a judge," but it is possible that a stronger manipulation would have induced a more realistic legal reasoning process. For example, past studies have induced accuracy motivations by telling participants that they would have to justify their decisions to a third party (Bolson and Druckman 2015; Bolson, Druckman, and Cook 2014; Tetlock 1983). I did not forewarn subjects they would be asked to justify their decisions and only asked subjects to provide an explanation after they made a decision. It is possible that informing subjects that they would have to explain their legal rationale for their decisions as part of the original framing text, similar to how a judge justifies her decision in a written opinion, would induce stronger accuracy goals. Similarly, explicitly asking subjects to individually list their pro and con considerations, similar to Franklin's moral algebra, may also have induced stronger accuracy motives. Future studies should explore alternative or additional manipulations to determine if subjects can be induced to engage in more realistic or stronger forms of legal reasoning and whether this alters the effect of an image prime.

Second, the subjects in this experiment were not nationally representative. In

particular, subjects were less likely to identify as Republicans and more likely to identify as Democrats than people in the general population. It is possible that a more representative sample would have yielded different results. I do, however, directly control for subjects' attitudes about the relevant policy area. Further, including party identification in the model does not alter the results nor does it improve the model.

The experiment may lack internal validity as well. Subjects may not cognitively process a stylized, online prompt the same way they would a description of a legal or political controversy in real life. For subjects in the legal treatment in particular, the experiment may not have seemed personally relevant enough to warrant effortful deliberation and hence they may have operated in a low elaboration state that was amenable to peripheral routes to persuasion. However, subjects in the legal treatment were still more likely to get the correct legal answer while controlling for whether they received the image prime and for their attitudes about energy policy. Even if they were in a low elaboration state due to the contrived nature of the experiment, many of them were capable and interested enough in reaching an accurate conclusion that they were able to get the correct legal answer.

Finally, the image of a polluting oil refinery may not create affect transfer so much as it may prime subjects to think about the environment and pollution. An identical experiment that featured a positive image of a construction worker did not produce any effect, suggesting that the results may be particular to the specific images used and are not driven by more universal methods of affect transfer. Even if the results are specific to the image, and even if the mechanism was not affect transfer, it is clear that the image is not

legally relevant to the constitutionality of the nomination process discussed in the scenario. The strong effect that the image has on subjects in the legal treatment suggests, at the very least, that extra-legal considerations are driving their decision in a way that is most likely not consciously appreciated by the subjects themselves. The fact that the image predisposed pro-oil and gas subjects to choose an incorrect legal outcome that runs counter to their personal policy preferences suggests as much.

Despite the study's weaknesses, the experimental results strongly indicate that legal decision making does not necessarily imply cool consideration (Redlawsk 2002). People can try to get the correct legal answers without engaging in purely conscious and rational deliberation. This has several implications for future research in the fields of political psychology and judicial politics.

First, studies should explore further whether and when people are immune to the biasing effects of peripheral cues and affect transfer. We know that affectively charged primes can influence people's decisions but more could be done to study what mental states or decision contexts best immunize people against the effects of peripheral cues. For example, this study suggests that accuracy motivations are an insufficient condition for avoiding affect transfer but it does not provide any evidence as to whether more effortful deliberation would be a necessary or sufficient condition for counteracting the biasing effect of affectively charged primes. Guthrie, Rachlinski, and Wistrich (2007) also suggest that effortfully deliberating over legal questions would make subjects less prone to engaging in forms of cognitive bias but none of their experimental manipulations induce deliberation nor do they explicitly test for any differences between deliberation and natural

processing. Future studies similar to the experiment employed here should isolate specific cognitive mechanisms that are necessary or sufficient to avoid affect transfer, including treatments that more explicitly inducing effortful deliberation.

This study also suggests the need for further research into legal expertise and the role of affect transfer. My results suggest that, for lay people, thinking like a judge is insufficient for counteracting the role of affect transfer but the results may be different with legally trained subjects. Studies on expertise demonstrate that trained experts are able to automatically and, to some extent, subconsciously identify pertinent information and ignore immaterial information as they solve a professionally relevant problem (Kahan et al. 2015; Kiesel and Kunde 2009; Chi 2006). Per Petty and Cacioppo (1986), legal training may dampen the effect of affect transfer by either improving subjects' ability or motivation to engage in deliberative, effortful thought processes. Lodge and Taber (2013), in contrast, suggest that legal sophisticates may be more effected by affect transfer because they have a denser network of affectively charged legal considerations. Of my 426 subjects, only three had a law degree. Despite my attempts to control for sophistication, my study does not provide an adequate test for how legal experts would behave. Similar studies should be conducted using law students (Braman 2006; Braman and Nelson 2007) or legal professionals to determine if legal training combined with or independent of induced legal decision making is sufficient to overcome the biasing effect of affectively charged cues.

Future experimental studies should also specifically test for role of affect transfer in judicial decision making. In my next chapter, for example, I conduct an observational study and find that, while controlling for legal, strategic, and ideological factors, the

Supreme Court justices were more likely to vote for a litigant when there was more laughter during that litigant's portion of oral argument than in her opponent's. Laughter is not legally relevant to the merits of a party's position nor does it influence the policy stakes of a case, but I show that incidents of laughter can operate as a form of positive, incidental affect which subtly influence the justices' evaluations. Conducting similar experiments as the one described here but utilizing judges as subjects could provide further evidence of subconscious processing in legal decision making and help advance our general understanding of judicial decision making considerably.

This study tests for the role of affect transfer in legal decision making but future experimental research can advance our understanding of when other forms of subconscious biases influence judges' decisions. Rachlinski et al. (2009), for example, conducted a study on judges' implicit racial biases. Their experiments indicated there was no correlation between judges' implicit racial preferences, as measured by the Implicit Association Test (IAT), and their decisions in hypothetical criminal cases when the race of the defendant was made explicit. In contrast, judges who exhibited white preference via the IAT gave harsher punishments in hypothetical criminal cases when they were first subliminally primed with words associated with black Americans than when they were primed with neutral words. Judges, as people, undeniably possess the same sorts of implicit biases as members of the mass public and may act upon them in subtle ways throughout a trial or hearing. Further research into the role of implicit bias in legal decision making can help advance our understanding of judicial decision making and potentially even suggest evidence-based recommendations for improving the judiciary.

Conclusion

In this study, I primed subjects with a bleak, negative image of a polluting oil refinery before asking them to read about a political controversy. The evidence suggests that subjects who were shown the negative image were predisposed to dislike the people and behaviors they read about and that the biasing effect of the image was the same for subjects in the control group and in the legal treatment group. Thinking like a judge can encourage people to try to get the right answer but legal decision making is seemingly limited in its ability to dampen the biasing effects of subconscious, automatic thought processes. This suggests that legal decision making does not invoke a relatively rare state of "cold cognition." Thinking like a judge is not the same thing as behaving like a computer tallying up the legal arguments per Franklin's moral algebra. Rather, legal decision making is as complicated, messy, and undeniably human as social or political cognition.

Chapter 3:   Laughter and Persuasion during Supreme Court Oral Arguments

The Supreme Court granted certiorari in *Rousey v. Jacoway* (2005) to tackle the question of whether Individual Retirement Accounts were shielded from creditors in bankruptcy proceedings under Federal law. When the advocate for petitioners, Pamela S. Karlan, stood up to deliver her final rebuttal, Justice Stevens informed her that she had "about 7 minutes. You're not required to use it all." Karlan responded, "I'm going to retire early," which elicited several appreciative chuckles in the courtroom. She went on to win the case in a 9-0 decision.

The petitioners likely did not win because Karlan was able to get the justices to laugh during her oral argument. Indeed, the policy stakes in *Rousey* were high and the justices are professionals. More generally, everything we know about the Court suggests the justices vote in a way that maximizes their policy preferences (Segal and Spaeth 2002) while operating within certain institutional and collegial constraints (Epstein and Knight 1998; Maltzman, Spriggs and Wahlbeck 2000) and within the broad confines of the law (Richards and Kritzer 2002). Thus, the justices might enjoy a good joke as much as anyone else, but the bulk of research into judicial decision making suggests that a fleeting moment of levity is a drop in the bucket compared to the weighty concerns that drive their decisions.

More specifically, the bulk of research into judicial decision making tends to treat judges as hyper-rational, utility-maximizing automatons. In contrast, a growing body of research treats judges as human beings and accordingly allows for the possibility that their emotions may factor into their decisions (Black et al. 2011); that their personal backgrounds may influence their votes (Wedeking 2012; Glynn and Sen 2015); that they

may make mistakes (Guthrie, Rachlinski and Wistrich 2007); or that they might engage in motivated reasoning (Braman 2006; Braman and Nelson 2007). The point of these analyses is that Supreme Court justices are some of the smartest people on the planet but they are not robots—and therefore they are susceptible to the same psychological forces that drive the behavior of the mass public. While telling a good joke during oral argument may be a drop in the bucket compared to every other factor that influences the justices' decisions, there is no telling which drop will cause the bucket to overflow.

Ultimately, this chapter is not concerned with the role of humor in judicial decision making per se. Rather, I seek to use humor as a vehicle for testing how well theories of cognition explain elite decision making. There is a well-developed literature on judicial decision making that outlines the political, legal, and strategic factors that drive the behavior of that class of political elites. By combining that courts literature with theories driven from social psychology and cognition, I explore whether cognitive processes common among the mass public can explain features of elite decision making as well. Literature on social cognition and political psychology have established that much of human reasoning occurs through largely automatic, subconscious processes (Bargh and Chartrand 1999) and that incidental and irrelevant stimuli can influence our decisions (Lodge and Taber 2013). Laughter is not relevant to the legal merits of an argument and a good joke does not change the policy implications of a case. Indeed, if the justices are perfectly constrained legal actors or if they are hyper-rational policy maximizers, humor should not influence their votes on any level. However, if laughter during oral arguments affects the justices' votes, even marginally, it would give powerful evidence to the argument that the justices engage in a degree of automatic, subconscious thought processes

and are influenced by incidental stimuli.

The chapter proceeds as follows. First, it lays out the theoretical background for why laughter might influence Supreme Court justices during an important stage of their decision-making process and presents several main hypotheses. From there, I describe the data I will use to test these hypotheses. Next, I present the results of these tests and then place the results within the broader literature on the courts, decision making, and psychology.

Theory and Hypotheses

Social Psychology as a Means to Explain Elite Judicial Behavior

Psychologists have demonstrated that a great deal of human cognition occurs below the surface of conscious awareness (Bargh et al. 2012; Bargh and Chartrand 1999) and that such subconscious thought processes automatically influence everything from our emotions (Williams and Bargh 2008; Mauss, Cook, and Gross 2007) to our moral judgments (Mikhail 2007; Haidt 2001). Dual-process models of cognition, for example, posit that there are two "tracks" for how people process information: a peripheral track that is quick, automatic, subconscious, and relatively effortless (i.e., System 1 processing) and a direct, central route that is argument-based, slow, effortful, deliberative and conscious (i.e., System 2 processing) (Eagly and Chaiken 1993; Evans 2008). Many psychologists argue that System 1 thought dominates our reasoning processes and that System 2 thought evolved largely to rationalize conclusions and attitudes, not inform them (Lodge and Taber 2013; Haidt 2012).

Dual processing theories of cognition can also explain why people are often

influenced by incidental stimuli. System 1 or automatic processing can form rapid impressions based on information that we would consciously and rationally deem to be irrelevant. These impressions then subtly and subconsciously influence our final evaluations. Experimental studies have demonstrated that subliminal stimuli information presented at a speed too quick for the mind to consciously process can influence people's evaluations of almost anything, ranging from simple images (Murphy and Zajonc 1993) to more complex and important matters like evaluations of political candidates (Lodge and Taber 2013).

Other studies have demonstrated that post-conscious primes—information one is consciously aware of even though unaware of how it influences one's thinking—can also influence people's evaluations. For example, Todorov et al. (2005) exposed study subjects to black and white photos of faces of real political candidates and asked the subjects to rate the candidates based on their perceived competence. Even though the subjects were shown the images for just one second each, and even though they were not given any pertinent information about the candidates or their backgrounds, the subjects' inferences of the candidates' competence predicted the winner of the candidates' races and were linearly related to the vote margin. This suggests that candidates' appearances may exert a powerful if subconscious pull on voters' real-life political evaluations. Other studies have confirmed that such incidental and irrelevant stimuli can influence people's real-life voting behavior. Berger, Meredith and Wheeler (2008), for example, found that when voters' polling stations are located in schools, voters are more likely to support school funding initiatives compared to their similarly situated peers whose polling stations are located in other public buildings. A candidate's appearance or the location of one's polling station is irrelevant to

77

the important task of deciding who or what to vote for, but such incidental cues exert subtle influence over our decisions outside of our conscious awareness.

The effect of incidental stimuli on evaluations can be direct or indirect. For example, if a person sees an advertisement for a product on a sunny day (Schwarze and Clore 1983), her mind might make an automatic and direct association between the positive emotions she feels from the pleasant weather and how she feels about the product. Incidental affect from extraneous stimuli like the weather can also "contaminate" memory retrieval processes by increasing the odds of retrieving attitudes or considerations that are affectively similar to the incidental stimulus (Lodge and Taber 2013). To again use the example a person seeing an advertisement for a product on a sunny day, the viewer might be more likely to conjure up positive thoughts related to the product that subsequently influence her conscious, System 2 deliberation over whether she likes or dislikes that product. If, on a fundamental cognitive level, judges think like members of the mass public, they too may be directly and indirectly influenced by incidental and irrelevant stimuli. The justices may form immediate reactions to legal questions, reactions that are influenced by irrelevant information outside of the justices' conscious awareness. And while the justices undoubtedly use conscious and logical deliberation to sift through legal arguments, the considerations that factor into their deliberation may also be "contaminated" or biased by subconscious forces.

Much of the research on cognition is empirically based on members of the mass public, not political elites. It is of course possible that, as trained legal professionals, the justices are capable of engaging in purely conscious rational deliberation or what Lodge

and Taber (2013) call "cold cognition." Some evidence does indeed support the argument that legal training enables judges to home in on relevant information and ignore irrelevant information in order to get the right legal answer (Kahan et al. 2015). However, several experimental studies have also demonstrated that judges fall prey to certain forms of cognitive bias. For example, Guthrie, Rachlinski and Wistrich (2007) describe an experiment in which actual judges are given a detailed story about an accident that led to a lawsuit. The judges are told that the defendant was liable and the judges' only task would be to award damages to the plaintiff. The judges are also told about a failed settlement conference and reminded that the discussions during the settlement conference should not influence the judges' decision. Guthrie, Rachlinski and Wistrich find that the amount of money the judges award in damages is "anchored" by the legally irrelevant sum of money proposed during the failed settlement conference. Specifically, being told that the plaintiff asked for $10 million in the settlement conference significantly increases the amount of money the judges award the plaintiff compared to a control group of judges who are not told about any specific dollar figure requested by the plaintiff. Other experiments indicate that judges engage in "hindsight bias" by being more likely to rule that a police officer had probable cause to conduct a search if the search produced contraband (Guthrie, Rachlinski and Wistrich 2007). Further studies have demonstrated the judges possess forms of implicit racial bias (Rachlinski et al. 2009) and that their emotions may influence their decisions by making them more likely to rule in favor of sympathetic litigants (Wistrich, Rachlinski and Guthrie 2015).

We may not be able to definitively pin down the exact mental processes that judges engage in when thinking through a case but we can at least find evidence that automatic,

subconscious processes sometimes play a role. If justices engage in wholly deliberate and conscious thought, stimuli they are not consciously aware of should not influence their evaluations. The contrapositive would also be true: if incidental and irrelevant stimuli influence the justices' decisions, that would give powerful evidence that the justices process information at least in part through automatic, subconscious avenues and would suggest that trained political elites may engage in some of the same cognitive processes as the mass public.

Oral Arguments and the Supreme Court's Decision-Making Process

To test whether the justices are influenced by irrelevant, incidental stimuli I look to oral arguments at the Supreme Court. I do so for two reasons: oral arguments produce a great deal of publicly-accessible data and because they represent an important step in the Court's decision-making process. The extent to which oral arguments let scholars observe and study unscripted and spontaneous portions of political elites' decision-making process is perhaps unique among the three branches of government, making it the ideal testing ground for how general theories of cognition can explain elite decision making.

First, oral arguments are the only public portion of the Court's decision-making process and they thus give scholars a unique opportunity to observe the justices engage in authentic, unscripted behavior. At the same time, the U.S. Supreme Court's oral arguments produce a great deal of data in the form of public transcripts for each and every argument. In contrast, the Court's conference discussions and the opinion writing process occur behind closed doors. Information about those parts of the decision-making process is thus incomplete because the only data available come from the personal papers of the justices

or from interviews.

Oral argument data are not just convenient. They tap into an integral step of the Court's decision-making process. Some Court scholars have implied that oral arguments are merely a "dog and pony show" and that oral arguments do not actually influence the justices' behavior. Segal and Spaeth (2002, 280), for example, suggest that there is no evidence that oral arguments "regularly, or even frequently, determine[] who wins and who loses." Rohde and Spaeth (1976, 153) suggest that oral arguments can give clues as to how the justices will vote, but not reliable ones. If, as the attitudinal model suggests, the justices are single-minded policy-maximizing actors, there would be good reason to believe that oral arguments do not influence the justices' behavior: there is little that can be said or done in a one-hour discussion that will change the justices' clear and strong preferences for what policy they set with the case. This is an important critique to consider because, if oral arguments do not matter, then we could not use them to make valid inferences about the justices' decision-making process or how they think about a case.

The justices, at least, believe that oral arguments are an important stage in their decision-making process. Justice Harlan has stated that "oral argument on appeal is perhaps the most effective weapon" litigants have (Harlan 1955, 11). Chief Justice Roberts has claimed that oral arguments are "terribly, terribly important." (Roberts 2005, 70). The justices do not just state that they care about oral arguments but they behave as though they care about them, too. The justices are, for example, more likely to take an engaged and active role in oral arguments when the case deals with a politically salient issue (Black, Sorenson and Johnson 2013) or when the justice has personal expertise and interest in the

legal issues being discussed (Black, Johnson and Wedeking 2012).

Empirical research into oral argument has identified several reasons for why oral arguments matter and for how the justices use them. Scholars have demonstrated, for example, that oral arguments provide unique and relevant information above and beyond what was included in the litigants' briefs (Johnson 2001). Further, oral arguments give the justices an important opportunity to communicate with each other about the direction that the case will take and to begin the process of forming voting coalitions (Black, Johnson and Wedeking 2012).

What is more, there is evidence to suggest that the justices can be persuaded to change their position on a case due to arguments made and information presented within oral arguments. McGuire (1995) and McGuire (1998), for example, have established that experienced attorneys have a higher probability of winning cases at the Supreme Court compared to their similarly situated, less experienced peers. Johnson, Wahlbeck and Spriggs (2006) produce evidence to suggest that this effect occurs at least in part through their performance during oral argument. They show that, controlling for other politically and strategically relevant factors, the grades that Justice Blackmun gave for the advocates' performance during oral argument were predictive of how the Court would rule on the case. In confirmation of these findings, Ringsmuth, Bryan and Johnson (2013) look at the pre- and post-oral argument notes of Powell and Blackmun and find that the justices' altered their disposition about a case due in part to the arguments raised in oral argument.

Attorneys have an opportunity to influence the justices during oral argument by better clarifying the potential policy outcomes of the case (Johnson 2004), by providing

information about the preferences of external actors (Ringsmuth and Johnson 2013), and by reframing the issues of the case in a way that creates a realignment of the justices' preferences across new issue dimensions (Black, Schutte and Johnson 2013). Finally, to confirm that oral arguments matter, research has suggested that the justices' behavior during oral argument is highly predictive of how they will vote in a case (Greenhouse 2004; Shullman 2004; Roberts 2005; Wrightsman 2008; Johnson et al. 2009). If oral arguments did not matter, the justices would have no incentive to sincerely engage in the material and to "tip their hands" (Johnson et al. 2009) as to how they will vote on the case.

Research has also suggested that theories grounded in psychology and linguistics can explain and predict the justices' behavior during oral argument (e.g. Schubert et al. (1992)). Black et al. (2011) demonstrate that when the justices direct more unpleasant words towards one side, that side is more likely to lose. Black et al. (2011) explain that language carries emotional content and that the feelings an actor expresses through their language illuminate their preferences and can be used to predict their decisions. In line with work in social cognition, Black et al. (2011, 573) suggest that the justices engage in a kind of intuitive decision-making process that can be tracked through their emotional language. There is a distinct possibility, then, that the emotional content of the justices' behavior during oral arguments is not just predictive of their decisions but is causal as well.

Laughter and Oral Argument

Court scholars have established that, during oral argument, the justices deliberate over issues of great personal importance (Black et al. 2011). During such deliberations, social cognition scholars suggest that they will consciously and subconsciously filter

information through the lens of their experiences, attitudes, and beliefs. The justices use legal arguments to justify their beliefs and they undeniably engage in deliberate, logical thought, but that does not mean that their System 1 processing is irrelevant. It informs and guides them throughout the decision-making process.

I argue that it is possible that the justices' evaluations are influenced by irrelevant information. In the Danziger, Levav and Avnaim-Pesso (2011) study of Israeli judges in parole revocation hearings, for example, judges were more likely to deny parole requests to prisoners when the hearing occurred well after a meal. Danziger, Levav and Avnaim-Pesso (2011) argue that when the judges were psychologically and physically depleted, they defaulted to the easiest decision they could make: denying parole. Hunger is not relevant to paroling decisions but, when dealing with human actors, sometimes the law is "what the judge had for breakfast" (Frank 1949, 241-242). To establish that the U.S. Supreme Court justices' decisions occur, on some level, via subconscious processing all we need to do is find similar evidence of irrelevant stimuli influencing their evaluations. Such an effect would operate as a litmus test for the presence of System 1 processing.

To do so, I turn to the role of humor during oral arguments. When a litigant elicits laughter during oral argument, that laughter should act as a form of positive affect that should influence the justices' evaluations of the litigant. Psychological studies have found that, in general, positive affective cues and positive moods can make people more open to information, less defensive, more receptive to an argument, and can broaden their attention and cognition (Fredrickson 2001; Isen 2001; Petty et al. 1993). Psychological studies have established that laughing, specifically, can improve mood even if the laughter is forced and

insincere (Foley, Matheis, and Schaefer 2002; Neuhoff and Schaffer 2002). The presence of laughter during a litigant's presentation to the Court should make the justices more open to the litigant's arguments and generally be more disposed towards that litigant. Literature on humor in communication and persuasion is consistent with this hypothesis. Experimental studies on humor have suggested that the funnier respondents found a message, the greater they liked the source and found her credible, the deeper they processed the message, the less they counterargued against the message (Nabi, Moyer-Guse and Byrne 2007, 38), and the more likely they were to be persuaded by weak arguments (Griskevicius, Shiota and Neufeld 2010). Anecdotal analysis of the persuasive use of humor in Supreme Court oral arguments suggests that humor may work similarly on the justices (Hobbs 2007).

The effect of positive affective cues like laughter can have a direct and indirect impact on persuasion. Positive affective cues (Lodge and Taber 2013) and positive moods (Petty et al. 1993) can directly influence people's evaluations through what Lodge and Taber call "affect transfer." The positive feelings generated by an affectively charged cue like a sunny day or a smiling face become directly (and subconsciously) associated with other attitude objects. As Petty et al. (1993) argue, the direct affect transfer is especially likely when the likelihood of elaboration is low, or when a person is less motivated to engage in effortful, deliberate thought about a question (i.e. is instead engaging in System 1 processing). Laughter should also indirectly increase the justices' esteem for the litigant through what Lodge and Taber (2013) call "affect contagion." A positive stimulus should increase the probability that the justice will call upon positive considerations in their long-term memory that are associated with the litigant and her position. Petty et al. (1993)

similarly show that when the likelihood of elaboration is high (i.e. System 2 processing), positive mood increases the number of positive thoughts that subjects draw upon when considering a question and hence has a positive relationship with their evaluations.

The main hypothesis of this article, then, is that the presence of laughter during a litigant's oral argument should increase the probability that the justices will vote for that party. Laughter is not logically related to the legal merits of an argument. Humorous messages do not change the policy stakes of the case. If the presence of laughter alters the probability of how the justices vote, it would provide strong evidence that the justices engage in some level of subconscious, automatic processing that is prone to peripheral routes of persuasion.

Data and Measures

To test this hypothesis, I look at orally-argued cases between 1986 and 1993.[24] The dependent variable is whether an individual justice casts a vote for the petitioner (1) or the respondent (0). Because this is a justice-centered model, each case presents up to 9 observations. The Supreme Court has released transcripts for each of its orally-argued cases during that time period. These transcripts report every comment made by the justices and attorneys during oral argument and the Oyez project[25] has subsequently voice-identified the speakers in almost all of those transcripts. Importantly, the transcripts include references to audible laughter in the courtroom by inserting "[laughter]" in the transcript.

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[24] I use this range because it coincides with the availability of data for a key variable – attorney quality – which I measure using Justice Blackmun's grades of attorneys' performance during oral argument.

[25] Chicago-Kent College of Law at Illinois Tech at https://www.oyez.org.

There are three important details to keep in mind about this data. First, there are instances of laughter that occur and go unnoted (Malphurs 2011). Second, the notation of "[laughter]" occurring after a speaker's comment means that laughter occurred temporally during or after that speaker's comment—it does not mean the speaker *caused* the laughter. Finally, the notation of "[laughter]" does not indicate who specifically is laughing, only that there was audible laughter in the courtroom.

An informal review of incidents of laughter—both from the transcripts and the audio recordings of the argument—indicate that laughter tends to occur spontaneously and is less commonly the result of a scripted joke. Malphurs (2011) provides a more detailed study into the nature of laughter during oral argument. Malphurs (2011, 63) watched and listened to transcripts of the 2006 term's oral arguments and found that, "[o]ut of the 131 moments in which justices used laughter, surprisingly only three instances occurred in which justices used laughter in an act of aggression." Malphurs notes that the justices most commonly direct their humorous and good-natured jabs at the attorneys or the attorney's arguments but the justices will not infrequently poke fun at themselves and their colleagues. The attorneys, similarly, poke fun at themselves, the Court, and individual justices.

Malphur's (2011) findings support the argument that laughter during oral argument exists as a kind of positive, affective stimuli. As Malphurs states (2011, 71), "when a justice or lawyer makes a statement that draws laughter …[t]he tension or boredom that has surrounded the case disappears for a while, the audience shakes the sand off their heavy eye lids, and the presenting lawyer becomes more relaxed and composed." Even without

knowing who produced the laughter, the motive behind it, or who is engaging in it, the mere presence of laughter should exert a subtle influence on the justices. Just as "canned" laughter tracks during sitcoms can increase viewers' evaluations of the program (Leventhal and Mace 1970), laughter in the courtroom should positively impact a justice's evaluation even if the justice is not herself joining in.

My hypothesis is that the more laughter that occurs during an advocate's portion of the oral argument relative to her opponent's, the higher the probability she has of winning the justices' votes. The primary explanatory variable is the *Difference in Laughter* that occurred during the petitioner's portion of the oral argument compared to the respondent's. This is a continuous variable wherein negative values indicate that there were more instances of laughter during respondent's portion of the oral argument than during the petitioner's and vice versa for positive values. I expect a positive relationship here: the more incidents of laughter during the petitioner's speaking time relative to the respondent, the more likely a justice should be to vote for the petitioner.

It is of course possible that laughing during an advocate's argument is endogenous: there may be more laughter during the presentations of attorneys who are otherwise more likely to win. To prove that laughter has a causal effect on outcomes, I need to both show that it is correlated with the justices' votes and that it is itself not caused by factors that otherwise drive the justices' voting behavior. In effect, I need to show that laughter is akin to a random treatment that affects the justices' behavior. To do so, I estimate a model of the justices' votes while attempting to control for every legally, politically, and strategically relevant factor that might influence those votes. If laughter exerts a

statistically significant effect on the outcome above and beyond all other relevant variables, there would be strong evidence to suggest that it contributes to, rather than just results from, an advocate's success.

First, the justices have strong policy preferences and they vote for outcomes that advance their policy goals (Segal and Spaeth 2002). To control for ideology's role in the decision-making process, I include the 2015 Martin-Quinn scores (MQ scores) for the *Justices' Ideologies* (Martin and Quinn 2002). MQ scores measure the justices' ideologies on a left-right ideological space where negative values indicate the justice is liberal and positive values indicate the justice is conservative. I also include a dichotomous variable, *Lower Court Liberal*, for whether the lower-court decision being reviewed was decided in a liberal (1) or a conservative (0) direction. Finally, I include an interaction between those two variables. The interaction should produce a positive coefficient: a conservative justice (with positive MQ scores) should be more likely to vote for the petitioner (i.e. reverse the lower court decision) when the lower court decision was liberal.

Research has also demonstrated that attorney quality can impact case outcomes (McGuire 1998; McGuire 1993; McGuire 1995). I control for attorney quality and performance directly and indirectly. I directly control for attorney quality and performance by including the Blackmun grades of attorney performance in the model (Johnson, Wahlbeck and Spriggs 2006). During oral arguments, Justice Blackmun assessed and took notes of the quality of each advocate's performance. Research into Blackmun's notes have demonstrated that Blackmun's grades strongly correlate with factors and characteristics commonly associated with attorney quality (Johnson, Wahlbeck and Spriggs 2006). For

example, attorneys with more experience, who attended elite law schools, or who clerked with a Supreme Court justice in the past all tended to receive higher grades for their performance. Blackmun's grades were also predictive of the Court's eventual vote even when controlling for background characteristics like litigation experience, legal training, or former clerking experience. I create a variable, *Difference in Grades*, that contrasts the grades that Blackmun assigned to the petitioner versus the respondent (Johnson, Wahlbeck and Spriggs 2006).[26]

I indirectly control for attorney quality and performance by including a variable that measures the litigants' resources. Evidence has shown that the litigants' resources correlate with their success at the Supreme Court. Litigants with more resources like large corporations, the states, and the ultimate repeat player—the U.S. government—tend to perform better than litigants with fewer resources like small companies or individuals (Galanter 1974). This may be due in part to their ability to afford high-priced counsel (Lazarus 2008) who possess a great deal of expertise and experience which, as studies have shown, often translates into higher rates of success (McGuire 1995). I use the Collins (2004) coding scheme for litigant resources. This is an ordinal scale that runs from 1 to 10 where a score of 1 indicates that the litigant is a minority individual and a score of 10 indicates that the litigant is the U.S. government. I include measures for both the *Petitioner's Status* and *Respondent's Status* and expect a positive coefficient for these

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[26] Justice Blackmun used different grading schemes throughout his tenure on the bench, sometimes assigning grades on an A through F scale and sometimes on a 100 through 1 scale. I follow the coding scheme used by Johnson, Wahlbeck and Spriggs (2006) which transforms Blackmun's grades into standardized scores.

variables.

Further, previous research indicates that the support of the Solicitor General (SG) is predictive of which party will win at the Supreme Court (Black and Owens 2012). Several compatible theories may explain this. The Solicitor General and amici parties can provide the Court with useful and persuasive information as to the policy stakes of the case (McGuire 1998); they can provide useful cues as to how other branches of government would react to the Court's likely decision (Bailey, Kamoie, and Maltzman 2005); or their support may be indicative of the legal strength of one side relative to the other (Collins 2004). I thus include two dichotomous variables for whether the *SG Supports Petitioner* (1) or not (0) and whether the *SG Supports Respondent* (1) or not (0). I expect a positive coefficient for both of those controls.

Research also demonstrates that amici parties have a limited ability to persuade the justices through their amicus filings. Collins (2004) and Collins (2007) argue that amicus briefs provide the justices with information about the expected social, legal, and political implications of the case with an aim of leading "the justices toward endorsing the 'correct' policy outcome, within the constraints they face as ultimately legal decision makers." (Collins 2007, 59). Collins (2004) and Collins (2007) empirically demonstrate the persuasive impact of amicus briefs and show that, while controlling for other legally and politically relevant variables, the number of briefs filed on behalf of a party is a statistically significant predictor of that party's success before the Supreme Court. I include a variable, *Difference in Amicus Briefs*, which tracks the difference in the number of amicus briefs filed on behalf of the petitioner relative to the respondent. I expect this to have a positive

coefficient: if more amici parties file briefs on behalf of the petitioner relative to the respondent, the more likely petitioner will be to win the justices' votes.

Multiple studies have indicated that the justices' behavior may vary dependent upon whether the case in question is politically salient (Epstein and Segal 2000; McAtee and McGuire 2007). In cases that deal with salient and important policy issues, the justices' prior opinions may be strong enough that incidental affective cues will have little ability to sway the justices' evaluations. I thus control for *Salience* using the Clark, Lax and Rice (2015) measure of case salience based on newspaper coverage of a case prior to the Court's decision. Clark, Lax and Rice conduct a text analysis of newspaper articles about Supreme Court cases in the New York Times, the Washington Post, and the Los Angeles Times and break down the coverage by its timing relative to the case's status. To oversimplify their data, the more news stories about a case, the more salient it is.[27] I interact this measure of salience with my laughter variable to determine if the effects of laughter differ in salient versus non-salient cases.

Research also indicates that the justices' behavior may differ during complex cases (Maltzman, Spriggs and Wahlbeck 2000). Literature on social cognition and psychology supports arguments for why legal complexity would decrease *or* increase the effect that

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[27] Other measures of salience (Collins and Cooper 2012; Epstein and Segal 2000) do not distinguish between news coverage of a case pre- and post-decision and thus may introduce "posttreatment bias" (Clark, Lax and Rice 2015, 41). Using a measure based on both pre- and post-decision news stories would make it impossible to tell if the justices voted differently than expected because a case was salient or if the case was salient because the justices voted differently than expected. I do not use the Black, Johnson, and Sorenson (2013) measure of salience based on the justices' behavior during oral argument because it would be perfectly collinear with other control variables in my model (i.e. the number of utterances for each justice).

cues like laughter have on the justices' evaluations. Complex cases may decrease the effect that incidental cues have on the justices' evaluations by encouraging them to think more deliberately. Research in psychology suggests that, when people are motivated to engage in effortful thought about a subject, they will be swayed less by peripheral cues like affectively charged stimuli or heuristics (Petty and Cacioppo 1986). Guthrie, Rachlinski, and Wistrich (2007), for example, conduct experiments which suggest judges are, like most people, prone to engaging in forms of cognitive bias when thinking quickly about relatively simple legal questions. For the purposes of this research, the justices may be swayed less by the biasing effects of affective cues like laughter in complicated cases because they are motivated to engage in "central" routes of deliberation, or to think in an effortful and deliberate fashion over the questions presented at oral argument.

Complex cases may instead increase the effect incidental cues have on the justices' evaluations for two reasons. First, and in stark contrast to Guthrie, Rachlinski, and Wistrich's (2007) hypothesis, deliberation may increase the biasing effect that affective cues have. According to Lodge and Taber (2013), thinking deliberately gives the initial biasing effect of an affective cue like laughter an opportunity to trigger a "cascade" of affectively congruent considerations, increasing its influence over one's final evaluations (see also Petty et al. 1993). Second, complex cases may push the boundaries of the justices' expertise and training and consequently decrease their ability to identify relevant information and ignore irrelevant cues like laughter. Research suggests that experts and trained professionals are able to quickly, automatically, and, to some degree, subconsciously identify relevant information and ignore irrelevant information when resolving a professionally related problem (Kahan et al. 2015; Kiesel et al. 2009). Kahan

et al., (2015) for example, conduct experimental studies on judges and lay people and find that judges, in stark contrast to similarly situated lay people, were able to ignore socially and politically controversial (but legally irrelevant) details in a hypothetical dispute and to instead rule on the legal merits of the question. Wistrich, Rachlinski and Guthrie (2015), in contrast, conduct a series of experiments on judges and find that their answers were swayed by emotions in what the authors describe as "challenging" legal questions. Expertise may give professionals a degree of immunity to irrelevant, biasing information in straightforward situations. In complicated or novel situations, however, the information the justices tackle may exceed their expertise and irrelevant and biasing information—like laughter—may influence their evaluations more.

I thus include a measure for *Complex Cases* generated from the Supreme Court Database's (Spaeth et al. 2015) listing of the number of issues and legal provisions in a case. I code this as a dichotomous measure where cases that have only one issue or legal provision are coded as 0 and cases that cover two or more issues or legal provisions are coded as 1. I interact this dichotomous variable with the relative count of laughter to determine if the affective cue of laughter has different effects on the justices' votes in simple versus complex cases.

I also control for the *Difference in Attorney Utterances* and *Difference in Justices' Utterances* during the petitioner's versus the respondent's argument. The more times attorneys and justices speak during an argument, the more opportunities there are for producing laughter. Further, previous research indicates that a litigant is more likely to lose if she or the justices speak more during her presentation compared to her opponent's (Black

et al. 2011; Johnson et al. 2009). I also control for case issue area using the Supreme Court Database's (Spaeth et al. 2015) issue area classifications in order to control for whether the justices' behavior changes dependent upon the issue area. I create a variable, *Civil Liberties*, for whether the case deals with a civil liberties issue (1) or not (0) and a variable, *Economic*, for whether the case deals with an economics issue (1) or not (0).[28] Finally, I attempt to control for unmeasured effects through my model specification. In particular, each justice may respond to the affective cue of laughter differently, so I estimate a random effects model clustered on the individual justices.[29]

Table 1 below provides the descriptive statistics for each variable in my dataset.[30]

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[28] The Civil Liberties variable includes issue areas 1 through 5 of the Supreme Court Database and the Economic variable includes issue areas 7 and 8.

[29] Fixed effects models estimate a separate slope for each unit to control for unit effects on the dependent variable whereas random effects models assume that unit effects are normally distributed with finite variance. Although the number of groups and observations per group may counsel towards using fixed effects, the key independent variables (i.e. total laughter, attorneys' grades, etc.) are not highly correlated with the unit effects (i.e. the justices) and hence the results of both fixed and random effects model should be consistent (indeed, the results of each are substantively identical) (Clark and Linzer 2012). I opt for a random effects model because of their ability to make predictions about unobserved units.

[30] Table 1 only includes data from observations included in my model, i.e. observations that are not missing any data.

Table 3.1: Within-Sample Summary Statistics

	Mean	St.Dev.	Min	Max
Vote for Petitioner	0.554	0.497	0.00	1.00
Difference in Laughter	-0.008	1.504	-7.00	7.00
Justice's MQ Score	0.055	2.147	-4.49	3.27
Lower Court Liberal	0.530	0.499	0.00	1.00
Difference in Attorney Grades	-0.107	0.929	-2.45	2.45
Petitioner's Status	6.140	2.765	1.00	10.00
Respondent's Status	5.908	2.856	2.00	10.00
SG Supports Petitioner	0.150	0.357	0.00	1.00
SG Supports Respondent	0.098	0.297	0.00	1.00
Difference in Amicus Briefs	0.055	2.264	-9.00	11.00
Salience	-0.014	0.646	-0.66	2.08
Complex Case	0.179	0.383	0.00	1.00
Difference in Attorney Utterances	4.488	26.263	-80.00	81.00
Difference in Justices' Utterances	0.755	7.928	-39.00	39.00
Term	1989.172	2.179	1986.00	1993.00
Civil Liberties	0.486	0.500	0.00	1.00
Economic	0.248	0.432	0.00	1.00
Term	1989	2.179	1986	1993
Observations	2726			

Table 2 below demonstrates that the bulk of cases in this time period do not feature much laughter and the difference in the count of laughter. In about 78% of the cases in this time period, the difference in the count of laughter between petitioner and respondent fell between -1 and 1. This is consistent with my expectations. Laughter should not play a large role in Supreme Court proceedings. Advocates are cautioned against intentional attempts at levity (Frederick 2003). On the margins, however, and in those exceptional cases where one side produces a great deal more laughter than the other, that laughter should influence the justices' evaluations.

Table 3.2: Relative Count of Laughter Between Petitioner and Respondent: 1986-1993

Count of Laughter During Petitioner's Argument	Count of Laughter During Respondent's Argument							
	0	1	2	3	4	5	6	7
0	366	88	38	14	11	4	3	2
1	69	31	12	8	6	4	3	0
2	24	22	12	8	3	1	3	0
3	5	6	3	5	0	4	1	0
4	9	6	4	1	2	0	1	0
5	1	0	1	1	0	0	0	0
6	2	0	0	1	0	0	0	0
7	1	0	1	0	0	0	0	0
8	0	0	0	1	0	0	0	0
9	0	0	0	0	0	0	1	0
Total	477	153	71	39	22	13	12	2

Results

Because the dependent variable is dichotomous, I estimate a logit model. As Table 3 below indicates, the key independent variables are statistically significant and signed in the predicted direction.[31] The significant interaction between the *Justice's MQ Score* and the *Lower Court Liberal* variable indicates that the justices are more likely to vote for the petitioner if the petitioner is supporting a position that aligns with the justice's policy preferences. Attorney quality and argument strength influenced the justices' votes above and beyond the ideological content of the case. The justices were more likely to vote for

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[31] There may also be unmeasured, day-to-day contextual effects that increase the incidents of laughter during oral argument, the effect that laughter will have on the justices, or both. In recognition of this, I run a separate fixed effects model with the panel set to the justices and the errors clustered on the date of oral argument. The results can be found in the Appendix D. The results are substantively similar.

attorneys if Justice Blackmun gave them higher grades than their opponent, for the side who received more amicus briefs, and for the respondent when the SG supported her and for higher status petitioners. But even controlling for ideology, Blackmun's grades, the petitioner's and respondent's status, amicus fillings, and whom the SG supports, laughter still exerted a statistically and substantively significant effect on the justices' votes.[32]

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[32] The use of Blackmun's grades limits the dataset considerably. I thus estimate an additional model that omits Blackmun's grades to verify that there was no selection effect in the original model. The expanded dataset increases the number of observations from 2,726 to 14,667 and covers orally argued cases between 1986 and 2007. It is otherwise identical to the model estimated above. The results can be found in the Appendix D. Briefly, the main effect of laughter is no longer significant in this expanded model. The interaction effect between complexity and laughter is positive but it just misses traditional levels of statistical significance ($p=.07$). However, the interaction effect between laughter and case salience is significant and positive, indicating that the effect of laughter is more pronounced in salient cases. The absence of the Blackmun grades may result in a misspecified model as higher quality attorneys may, controlling for all other variables, produce more laughter.

Table 3.3: Probability of Petitioner Winning a Justice's Vote

	Vote for Petitioner
Difference in Laughter	0.197***
	(0.038)
Justice's MQ Score	-0.197***
	(0.031)
Lower Court Liberal	-0.248*
	(0.103)
Lower Court Liberal × Justice's MQ Score	0.579***
	(0.044)
Difference in Attorney Grades	0.255***
	(0.051)
Petitioner's Status	0.055**
	(0.020)
Respondent's Status	-0.008
	(0.019)
SG Supports Petitioner	0.203
	(0.141)
SG Supports Respondent	-0.430**
	(0.166)
Difference in Amicus Briefs	0.066**
	(0.021)
Salience	-0.029
	(0.073)
Difference in Laughter × Salience	-0.059
	(0.039)
Complex Case	0.062
	(0.122)
Complex Case × Difference in Laughter	-0.307***
	(0.069)
Difference in Attorney Utterances	-0.020***
	(0.002)
Difference in Justices' Utterances	-0.058***
	(0.006)
Term	0.092***
	(0.021)
Civil Liberties	0.170
	(0.111)
Economic	-0.310*
	(0.125)
Constant	-183.112***
	(42.215)
Observations	2726

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Note Random effects logit model clustered on the justices predicting whether an individual justice will vote for the petitioner.

Figure 1 plots the probability that a justice will vote for the petitioner given the count of laughter elicited during the petitioner's argument relative to the respondent's while holding all other variables at their means and modes. The reference line, fixed at about .55, indicates the average probability that a justice will vote for the petitioner for cases covered in this dataset. Note that petitioners tend to do well at the Supreme Court— the justices typically grant petitions for certiorari because they want to overturn, not just validate, a lower court ruling (McGuire et al., 2009; Segal and Spaeth 2002).
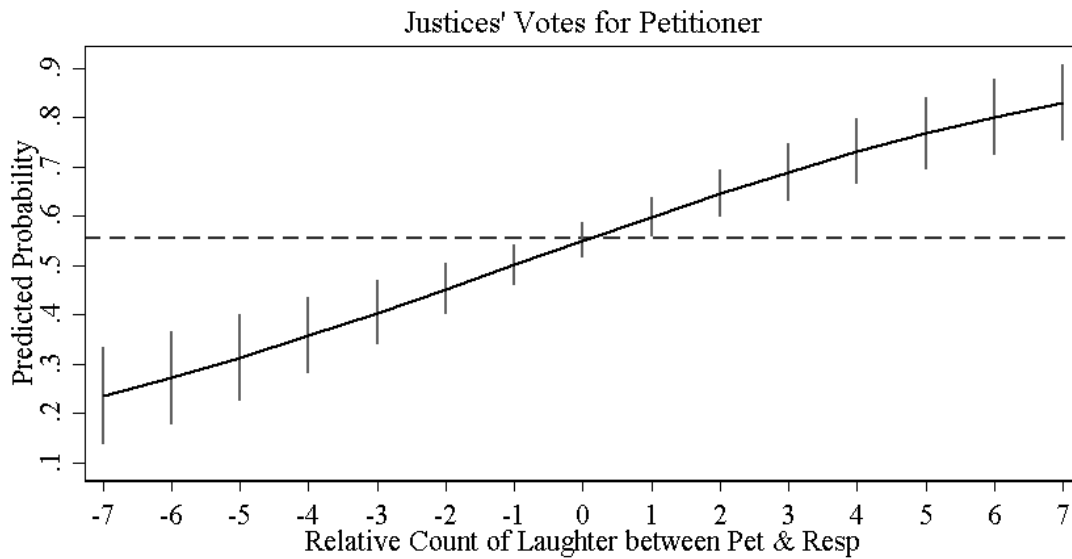
Figure 3.1 - Laughter's Effects on Judicial Behavior: The graph presents the predicted probability that a justice will vote for the petitioner given the difference in the amount of laughter during the petitioner's argument relative to the respondent's, represented on the x-axis. All other variables are held at their means and modes and the random effects set to zero. The dashed reference line indicates the mean probability that a justice votes for the petitioner within this sample of cases, and the whiskers depict the 95 percent confidence interval.

As Figure 1 demonstrates, the probability of earning a justice's vote more than triples as the laughter variable moves from an in-sample minimum of -7 to a maximum of 7 (from about a 23% chance of earning a vote to about an 83% chance). Within the time

100

period covered by the model, there were 486 votes cast in cases in which there were two more incidents of laughter during the respondent's arguments compared to the petitioner's (which is slightly more than one standard deviation below the mean count of laughter). This model estimates that the petitioner had about a coin's flip chance (45%) of earning votes in those cases. In contrast, there were 315 votes cast in cases in which there were two more incidents of laughter during the petitioner's arguments compared to the respondent's (which is slightly more than one standard deviation above the mean). This model estimates that the petitioner's chance of winning votes in those cases rose to about 65%. The difference is even starker when you when compare the estimated effect when the relative count of laughter between petitioner and respondent is two standard deviations below the mean (-3) to two standard deviations above the mean (3): the probability of a justice voting for petitioner moves from 40% to 69%.

There was no significant relationship between the salience of the case and the effect of laughter. This could be because the justices engage in similar thought processes regardless of how salient the case is. The effect of laughter, however, is conditioned on the complexity of the case. As Figure 2 demonstrates, the positive effect of having more laughter during petitioners' arguments on justices' votes for petitioners is strong and positively signed in cases that are not complex whereas laughter has a weak but negative impact on the justices' votes in complex cases. Without further research, it is difficult to identify exactly why complexity mediates laughter's effect on the justices' votes the way it does. On the one hand, it seems to challenge Kahan et al.'s (2015) contention that judges, as experts, are able to effectively ignore irrelevant and biasing information because biasing information affected the justices' impressions only in the simpler, more straightforward

101

cases which they were presumably best equipped to tackle. It could also provide

preliminary support to Guthrie, Rachlinski, and Wistrich's (2007) conception of how jurists

process information over Lodge and Taber's (2012): in complex cases, the justices are

engaging in deliberative, effortful thought processes and hence are less influenced by

irrelevant, affective cues. In non-complex cases, in contrast, the justices may be more likely

to engage in System 1 processing and hence be more swayed by affective stimuli like

laughter.
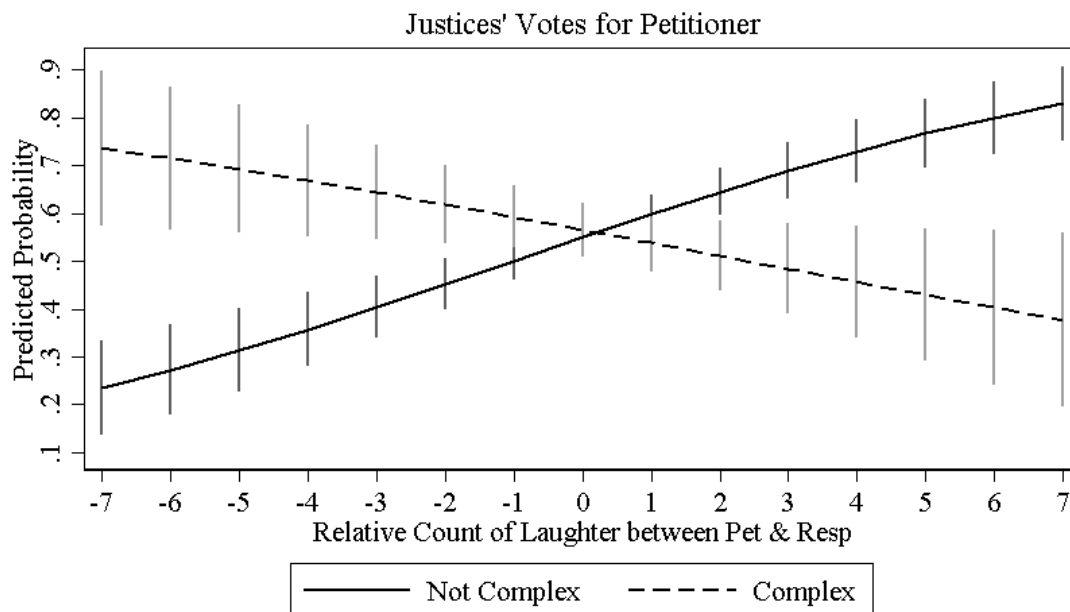
Figure 3.2 - Laughter's Effects on Judicial Behavior: The graph presents the predicted probability that a justice will vote for the petitioner given the difference in the amount of laughter during the petitioner's argument relative to the respondent's, represented on the x-axis. All other variables are held at their means and modes and the random effects set to zero. The dashed line indicates the justices' behavior in cases that deal with more than one legal issue or legal provision (complex cases) and those that deal with only one issue or legal provision (not complex cases). The whiskers depict the 95 percent confidence interval.

A Further Check for Endogeneity

Finally, it is possible that there is simply more laughter during the arguments made

by whichever side is likely to win. To help confirm that laughter is not endogenous to

whichever side is favored to win, I estimated a version of my model without the laughter variable in it. Per Collins (2004), I then saved the predictions from that model and determined if the average count of laughter for the petitioner was statistically higher in those cases where the model predicted the petitioner had a greater than 50% chance of winning a justice's vote compared to those cases in which the model predicted the petitioner had a less than 50% chance. If there is more observed laughter during the argument of the side that the model (sans laughter variable) predicts will win, it would indicate that the justices, attorneys, and the audience selectively laugh during the presentation of whichever advocate is favored to win. The mean count of difference of laughter in cases where the model predicts the petitioner would win a justice's vote is .002 and is -.029 for those cases that the model predicts the petitioner would lose. A t-test confirms that the difference between those means was statistically insignificant.[33]

To put this result in context, I conduct an identical test with the difference in the number of utterances the justices make during the petitioner's versus the respondent's argument. Recall that the justices tend to speak more during the arguments of the side that eventually loses (Black et al. 2011; Johnson et al. 2009). As is the case with laughter, speaking more during the petitioner's argument may *cause* the justices to vote against the petitioner or the justices may opt to speak more during the petitioner's argument because they were *already planning* to vote against the petitioner. As above, I estimate my main model without the *Difference in Laughter* variable and without the *Difference in Justices'*

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[33] The results are the same if I compare the mean count of laughter in cases where the model gives the petitioner a greater or less than 55% chance of winning (the mean probability for winning a justice's vote in this sample).

Utterances variable and save the predictions. When the model predicts that the petitioner has a greater than 50% chance of winning a justice's vote, the justices make an average of .468 fewer utterances during the petitioner's argument than the respondent's. When the model predicts that the petitioner has a lower than 50% chance of winning a justice's vote, the justices make an average of 2.74 more utterances during the petitioner's argument than the respondents. A t-test confirms that the difference in means is statistically significant at the *p*=.001 level.[34] This implies that the justices selectively speak more during the presentation of whichever side is unlikely to win anyway. In contrast, the justices, attorneys, and audience members do not selectively laugh during the arguments of whichever side is likely to win anyway. Laughter appears to be random and the presence of it impacts the outcomes above and beyond other legally, politically, and strategically relevant forces.

Discussion

As Malphurs (2011) describes it, the types of humorous situations that arise during oral argument are largely positive. The justices or attorney may make a good natured joke or accidentally phrase something in a humorous fashion. This data suggests that those humorous situations and the resulting laughter can act as a form of positive affect that produces a measurable and significant impact on the justices' decision making.

It is highly unlikely that Justice Ginsburg, for example, is consciously deciding to

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[34] The results are the same if I compare the mean count of utterances in cases where the model gives the petitioner a greater or less than 55% chance of winning (the mean probability for winning a justice's vote in this sample). They are also substantively similar if I estimate a model without the *Difference in Laughter* variable, the *Difference in Attorneys' Utterances* variable, or all three variables.

cast a vote based on which attorney was funniest. So how do we explain the effect of laughter on the justices' votes? Laughter is unlikely to be endogenous to better advocacy because the model controls for attorney quality via Blackmun's grades and the litigants' resource status. The justices could be laughing more for litigants who are perceived to be within their political "in-group," (Platow et al. 2005), but the model already controls for the justices' ideological predispositions. The justices could just take a more light-hearted approach during presentations of attorneys who they know will win because of the persuasiveness of the arguments presented in favor of that attorney's position. But the model controls for amici support which, as Collins (2004) and Collins (2007) indicates, should loosely control for the number and quality of persuasive arguments presented. Similarly, the justices may be more at ease during the presentation of litigants for whom they plan to vote for strategic reasons. But again, the model controls for SG support which should, per Bailey, Kamoie, and Maltzman (2005), capture some of the strategically relevant forces at work. Laughter exerts a statistically significant effect above and beyond the other politically, strategically, and legally relevant factors.

It could be that, despite the controls in my model, there are unmeasured confounding effects. The justices may be more likely to make jokes or to laugh during the arguments of litigants for whom they intend to vote and my controls are not adequately capturing their intentions and preferences. Keep in mind, however, that the measure of laughter is not specific to any individual justice. As noted above, the transcript only denotes that there was audible laughter during the argument. It does not identify which justice laughed and it does not identify the cause of the laughter. As such, the model does not estimate whether Justice Ginsburg is more likely to vote for the petitioner if Ginsburg

makes a joke during the petitioner's argument or even if she laughs during the petitioner's argument. Rather, it estimates her likelihood of voting for the petitioner based on whether there was laughter in the courtroom during the petitioner's argument and regardless of whether Justice Ginsburg joined in the merriment. The mere presence of this laughter — without knowing anything about its cause or who joined in—seems to influence her and her colleagues' behavior.

Laughter is an irrelevant, incidental stimuli. It occurs somewhat at random during oral arguments. It does not appear to be associated with any other relevant forces. If laughter exerts an influence over the justices' votes, the simplest explanation is that it acts as a subtle, affectively charged positive cue that subconsciously predisposes the justices to prefer one side to the other. Like a sunny day or a smiling face, laughter makes us feel better and inclines us towards the people, places, and ideas that we are thinking about while laughing. When a litigant elicits laughter during oral argument, she is increasing the odds that the justices will view her arguments less skeptically (Nabi, Moyer-Guse and Byrne 2007) but also increasing the odds that the justices will draw upon positive considerations associated with her argument from their long term memories (Lodge and Taber 2013; Petty et al. 1993).

Humor is probably not the most efficient and reliable route for winning at the Supreme Court. Attorneys should not interpret these results as a suggestion to hone their stand-up routines before arguing before the Supreme Court. The much more modest goal of this paper is to show that an irrelevant source of information can, on the margins, influence the justices and that it likely does so through subconscious processes. In the

Danziger, Levav and Avnaim-Pesso (2011) study of Israeli judges in parole revocation hearings, the judges were consciously aware of their hunger but they were likely (hopefully) unaware of how their hunger influenced their parole decisions. Similarly, the Supreme Court justices are consciously aware of laughter in the courtroom but are unlikely aware of how it might influence their votes because it does so through automatic, subconscious, System 1 processing.

There are a million other forces operating throughout oral argument and the entire decision-making process that might similarly nudge the justices towards one conclusion or another. This is not to say that the law as defined and interpreted by the Supreme Court is the product of random chance. Logic, legal principles, and the justices' personal beliefs are the prime movers of their behavior. They have been trained and socialized to recognize relevant information and ignore irrelevant, biasing information (Kahan et al. 2015). They reach a sometimes surprising number of unanimous decisions (Corley, Steigerwalk and Ward 2013) and their decisions are fairly predictable (Ruger et al. 2004). But just because the Supreme Court justices operate according to a coherent set of principles and in a fairly well-ordered fashion does not mean that they approach their task like a calculator approaches a math problem. The justices are human beings. Their thought processes occur organically and likely through similar cognitive processes as everyone else. They may engage in effortful and conscious deliberation more than the average person does, but System 1 processing likely plays a role in their thought processes as well. The fact that an incidental and irrelevant stimuli like laughter can influence their decisions on the margins confirms as much.

Conclusion

This article has a simple goal: to prove that the Supreme Court justices, a well-studied class of political elites, engage in some form and degree of automatic, subconscious processes. It goes about accomplishing that goal by using a somewhat humorous premise: that laughter during oral arguments will influence the justices' votes. The results indicate that incidents of laughter elicited by attorneys has a distinct influence on the justices' votes even while controlling for other politically, strategically, and legally relevant variables. Laughter is not legally relevant nor does it change the policy stakes in the case and so presumably the justices are not consciously basing their decisions on which side is funniest. This provides some preliminary evidence that the justices engage in subconscious, automatic System 1 processing and suggests that general theories of cognition can be used to explain elite decision making as well.

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Appendices

Appendix A – Demographics of Study Participants

Chapter 1: Demographic Characteristics of Study Subjects

	Exp. 1	Exp. 2	Exp. 3
Mean Age Band	30-49	30-49	30-49
Mean Education	Associate's Degree	Associate's Degree	Associate's Degree
% White	79%	78%	81%
% Black	10%	10%	07%
% Male	48%	66%	52%
% GOP (Strong or Lean)	18%	22%	19%
% Dem (Strong or Lean)	52%	36%	49%
Total	184	156	292

Chapter 2: Demographic Characteristics of Study Subjects

	Exp. 1
Mean Age Band	30-49
Mean Education	Associate's Degree
% White	82%
% Black	07%
% Male	51%
% GOP (Strong or Lean)	23%
% Dem (Strong or Lean)	45%
Total	426

Appendix B – Text of Experiments

Chapter 1

Experiment 1 Text:

Legal Treatment:

In the following scenario, pretend you are a Federal District Court Judge. You are tasked with determining whether an action is consistent with the law. In making your decisions, try to consider only the facts presented in the following excerpts from a brief on the topic. Your decisions should be based on your understanding of law and the relevant legal principles presented in the brief. A judge should be faithful to the law and should not be swayed by partisan interests, public opinion, or fear of criticism.

You are a trial court judge presiding over a "civil penalty" action filed by the U.S. government under a law known as the Wildlife Environment Protection Act ("the Act" or "WEPA"). WEPA prohibits "littering, disposing, or depositing any form of garbage, refuse, junk, or other debris" on land designated as a national wildlife preserve. The Government has charged the defendants, [**a group of construction workers**] [*members of an immigrants' aid group*], with 400 separate WEPA violations (each subject to a $500 fine) for dispersing, and thereafter leaving unattended, 400 ten-gallon reusable plastic dispensers of drinking water in a wildlife refuge located in the desert along the U.S-Mexico border. [**The defendants placed the dispensers along a 50-mile stretch in which they had been hired to do work on the construction of a "border fence" to keep out illegal aliens. The defendants anticipated drinking the water as they completed their work over a three-month period.**] [*The defendants placed the dispensers along a 50-mile stretch known to be traversed by undocumented migrant farm workers. The defendants' expected the water to be found and consumed by the migrant workers, who face a high risk of death from dehydration during attempts to cross the border.*]

The issue raised by the defendants' motion is how to interpret WEPA. The defendants argue that they had not permanently discarded the plastic water dispensers but instead temporarily placed them in the desert with an expectation that they would be used and reused. Such behavior, they argue, does not count as "littering, disposing, or depositing any form of garbage, refuse, junk, or other debris" under WEPA.

The Government focuses on the terms "depositing," "junk," and "other debris." On its reading, the defendants "deposited" the water dispensers in the desert by placing them there and then leaving them unattended. The terms "junk" and "debris," the government argues, are by design very broad and cover all manmade materials, including reusable plastic water dispensers, foreign to the habitat of wildlife in the preserve.

Your Ruling:

We are interested in knowing how you might decide the defendant's motion to dismiss. That motion should be granted if the defendant's interpretation of WEPA is correct but denied if the Government's competing interpretation is correct. Of course, if you were really a judge in the case, you'd do more legal research, and hear arguments from the parties. But at this point, based on the materials you've read, which of these two rulings do you think you would make?

Select one:

> Based on my analysis of the statute, I would conclude that the defendants did NOT violate WEPA.

> Based on my analysis of the statute, I would conclude that the defendants DID violate WEPA.

On a scale of 1 to 7, with 1 being "Not at all confident" and 7 being "Very confident", how confident are you in your answer?

What considerations informed your answers? List all that apply.

Control Group:

In the following scenario you will read a news article about a dispute. You will be tasked with determining whether an action ought to be allowed or prohibited. In making your decisions, try to consider only the facts presented in the news article. Your decision should be based on whatever issues and principles you feel are most important.]

A law prohibits "littering, disposing, or depositing any form of garbage, refuse, junk, or other debris" on land designated as a national wildlife preserve. [**A group of construction workers**][*Members of an immigrants' aid group*] left 400 ten-gallon reusable plastic dispensers of drinking water in a wildlife refuge located in the desert along the U.S-Mexico border. [**The construction workers placed the dispensers along a 50-mile stretch in which they had been hired to do work on the construction of a "border fence" to keep out illegal aliens. The construction workers anticipated drinking the water as they completed their work over a three-month period.**] [*The aid workers placed the dispensers along a 50-mile stretch known to be traversed by undocumented migrant farm workers. The aid workers expected the water to be found and consumed by the migrant workers, who face a high risk of death from dehydration during attempts to cross the border.*]

One argument for why the [**construction**][*aid*] workers' action should be allowed focuses on how to interpret the law. They had not permanently discarded the plastic water dispensers but instead temporarily placed them in the desert with an expectation that they would be used and reused. Such behavior does not count as "littering, disposing, or depositing any form of garbage, refuse, junk, or other debris" under the law.

The argument for why the [**construction**][*aid*] workers' action should be prohibited focuses on the terms "depositing," "junk," and "other debris." They "deposited" the water dispensers in the desert by placing them there and then leaving them unattended. The terms "junk" and "debris," are by design very broad and cover all manmade materials, including reusable plastic water dispensers, foreign to the habitat of wildlife in the preserve.

Your Opinion:

After reading this news story, we are interested in what you think about whether the [**construction**][*aid*] workers' action should be allowed or prohibited. Of course, you might want to do more research and hear more arguments for both sides. But at this point, based on the news story you've read, should the construction workers' action be allowed or prohibited?

Select One:

> Based on my analysis, I would conclude that the [**construction**][*aid*] workers' actions should be ALLOWED.

> Based on my analysis, I would conclude that the [**construction**][*aid*] workers' actions should be PROHIBITED.

On a scale of 1 to 7, with 1 being "Not at all confident" and 7 being "Very confident", how confident are you in your answer?

What considerations informed your answers? List all that apply.

Experiment 2 Text

Legal Treatment: [In this scenario, pretend you are a Federal District Court Judge. You are tasked with determining whether a federal law is consistent with the constitution. In making your decisions, try to consider only the facts presented in the following excerpts from a brief on the topic. Your decisions should be based on your understanding of constitutional law and the relevant legal principles presented in the brief. A judge should be faithful to the law and should not be swayed by partisan interests, public opinion, or fear of criticism.]

Control Group: [In this scenario, pretend you are a Congressperson. You are tasked with determining whether to alter a federal law. In making your decisions, try to consider only the facts presented in the following excerpts from a brief on the topic. Your decision should be based on whatever issues and principles you feel are most important to consider within your role as a Congressperson.]

Senator Williams Contests Energy Policy

Senator Williams recently announced that he opposes the funding proposal laid out by the

a Federal Agency. First, some background on the controversy. Williams explains that the federal government collects rents and fees from companies that use natural resources on federal land. The government also regulates these companies to ensure that they are engaging in safe and environmentally sound practices. In 2013, the government collected more than $14 billion worth of rents and fees from companies that use public natural resources. Half of that money goes directly into the federal government's General Fund.

Congress recently passed and the President signed a law called the "Innovation in Energy Production Technology" Law ("Innovation Law"). The purpose of the Innovation Law was to ensure that energy production projects that take place on federal land use state-of-the-art technologies. The Innovation Law was passed with bipartisan support.

One part of the Innovation Law created a special account that would be used to fund research into new energy production technologies. The Law stipulated that the account would be financed with $500 million from the rents and fees that the government collects from companies that use public natural resources. This money would be diverted from funds that would otherwise go to the federal government's General Fund.

The Innovation Law created an agency that would administer those funds. This Agency would also draft regulations for energy production and mining technologies used on federal lands and would have the authority to enforce compliance with its rules. These regulations were to be informed by the findings from the funded research projects.

The Agency is headed up by 3 appointed officers. Each officer serves for a term of 5 years. The officers who serve on the agency can only be removed by the President. The Innovation Law stipulated that one officer of the Agency was to be appointed by the President, one by the Speaker of House, and one by the President pro-tempore of the Senate.

The Innovation Law laid out several guidelines for the types of energy production technology the agency should finance. According to the law, the Agency should fund research into energy production technologies that (a) show great potential for generating energy safely and efficiently; (b) will produce jobs and economic growth; and (c) will decrease American reliance on foreign energy sources.

A Controversy Brews: Agency Funds Wind and Solar Energy, No Money for Oil and Gas

One year after the passage of the Innovation Law, the Agency responsible for administering the funds announced that it would provide $500 million to finance research projects related to renewable and sustainable energy technologies. This decision was made by the officers appointed by the Speaker of the House and the President pro tem of the Senate over the vote of the officer appointed by the President, who wanted to allocate all of the funds towards research into oil and gas energy technologies.

Legal Treatment: [Senator Williams was so upset with the Agency's funding decision that he filed a lawsuit. The lawsuit claims that, in order for the Innovation Law to be consistent

with the Constitution, the President should appoint all three of the officers to the Agency. Williams anticipates that the agency would then reverse their funding policy.]

Control Group: [Senator Williams was so upset with the Agency's funding decision that he proposed a bill to Congress to alter the Innovation Law. Williams's bill would alter the Agency's composition so that all three officers were appointed by the President. Williams anticipates that the agency would then reverse their funding policy.]

Legal Arguments

Williams contends that the Law currently violates the Appointments Clause (Article II, Section 2, Clause 2) of the Constitution, which specifies that all officers of the United States shall be appointed by the President with the advice and consent of the Senate. Williams points out that two of the three officers of the Agency are not appointed by the President (they are instead appointed by the Speaker of the House and the President pro-tem of the Senate). Williams argues that, in order for the Law to be consistent with the constitution, all three officers should be appointed by the President.

Supporters of the Law argue that the Necessary and Proper Clause (Article I, Section 8, Clause 18) of the Constitution gives Congress the power to do what is "necessary and proper" to achieve legitimate government goals. Because the Agency's purpose is legitimate, Congress can appoint officers to it if Congressional appointments are "necessary and proper."

Williams counters that the Necessary and Proper Clause does not give Congress the power to do something that is otherwise explicitly prohibited by the Constitution. Williams further argues that the Innovation Law doesn't just violate the plain text of the Appointments Clause, it violates the purpose of the Clause: By giving Congress the power to appoint officers, the Innovation Law upsets the constitutionally prescribed balance of power between the Executive and Legislate branches.

Supporters of the Law, however, argue that the power wielded by Agency officers who were appointed by the Speaker of the House and the President pro-tem is counter-balanced by the power of the officer appointed by the President. The President signed the Innovation Law which created the Agency, these supporters argue, so the Agency does not unduly upset the balance of powers between the Executive and Legislate branch.

Policy Arguments

Political supporters of the Agency argue that we should be moving towards cleaner energies that produce less pollution. They point to studies that indicate that renewable and sustainable energy production produces just a fraction of the pollution that oil and gas energy production does. They also argue that investing more in research into renewable and sustainable technology will increase the efficiency of that form of energy production, making renewable and sustainable energy production more reliable and less expensive. We should invest in research into renewable and sustainable technology, they argue, because

it will increase the efficiency of an environmentally sound form of energy production.

Senator Williams counters that America should invest more heavily in research into oil and gas energy technologies. Such technologies, he argues, will enable the United States to gain energy independence and grow the economy. He points to economic research which indicates that investments in oil and gas technology can reduce dependence on foreign oil and will help create jobs. Williams also argues that renewable energy is not capable of powering the nation efficiently or reliably. He points to studies that indicate that oil and gas energy can produce more electricity at a fraction of the cost of renewable energy production.

Legal Treatment: [Focus only on the facts and issues presented in this brief and act as a Federal Judge. Senator Williams has filed a lawsuit claiming that the Innovation Law is inconsistent with the Constitution because the method of appointing officers to the Agency violates the Appointments Clause. Ruling in favor of Williams would, in effect, result in the Agency funding gas and oil projects over wind and solar projects.

Would you rule in favor of Senator Williams's declaring that all three officers should be appointed by the President?

> Yes, I would rule that all three officers should be appointed by the President

> No, I would not rule that all three officers should be appointed by the President]

Control Group: [Focus only on the facts and issues presented in this brief and act as a Congressperson. Senator Williams has introduced a bill that would alter the Agency's composition so that all three officers will be appointed by the President. This would, in effect, result in the Agency funding gas and oil projects over wind and solar projects.

Would you vote for Senator Williams's bill declaring that all three officers should be appointed by the President?

> Yes, I would vote for the bill declaring that all three officers should be appointed by the President

> No, I would not vote for the bill declaring that all three officers should be appointed by the President]

On a scale of 1 to 7, with 1 being "Not at all confident" and 7 being "Very confident", how confident are you in your answer?

What considerations informed your answers? List all that apply.

Experiment 3 Text:

Legal Treatment: [In this scenario, pretend you are a Federal District Court Judge. You are tasked with determining whether a federal action is consistent with the Constitution. In making your decisions, try to consider only the facts presented in the following excerpts from a brief on the topic. Your decisions should be based on your understanding of constitutional law and the relevant legal principles presented in the brief. A judge should be faithful to the law and should not be swayed by partisan interests, public opinion, or fear of criticism.]

Control Group: [In this scenario, pretend you are a U.S. Senator. You are tasked with determining whether to confirm or reject nominees to a federal agency. In making your decisions, try to consider only the facts presented in the following excerpts from a brief on the topic. Your decision should be based on whatever issues and principles you feel are most important to consider within your role as a Senator.]

Senator Williams Contests Nominations

Senator Williams recently announced that he opposes the nomination of several officers to a Federal Agency. First, some background on the controversy. Williams explains that the federal government collects rents and fees from companies that use natural resources on federal land. The government also regulates these companies to ensure that they are engaging in safe and environmentally sound practices. In 2013, the government collected more than $14 billion worth of rents and fees from companies that use public natural resources. Half of that money goes directly into the federal government's General Fund.

Congress recently passed and the President signed a law called the "Innovation in Energy Production Technology" Law ("Innovation Law"). The purpose of the Innovation Law was to ensure that energy production projects that take place on federal land use state-of-the-art technologies. The Innovation Law was passed with bipartisan support.

One part of the Innovation Law created a special account that would be used to fund research into new energy production technologies. The Law stipulated that the account would be financed with $500 million from the rents and fees that the government collects from companies that use public natural resources. This money would be diverted from funds that would otherwise go to the federal government's General Fund.

The Innovation Law created an agency that would administer those funds. This Agency would also draft regulations for energy production and mining technologies used on federal lands and would have the authority to enforce compliance with its rules. These regulations were to be informed by the findings from the funded research projects.

The Agency is headed up by 3 appointed officers. Each officer serves for a term of 5 years. The officers who serve on the agency are nominated for appointment by the President and confirmed by the Senate. Once appointed, the officers can only be removed by the

President.

The Innovation Law laid out several guidelines for the types of energy production technology the agency should finance. According to the law, the Agency should fund research into energy production technologies that (a) show great potential for generating energy safely and efficiently; (b) will produce jobs and economic growth; and (c) will decrease American reliance on foreign energy sources.

A Controversy Brews: President to Nominate Officers Who Favor Oil and Gas Energy

After the bill went into effect, the President announced that he would nominate three individuals to the agency who had all made public statements declaring their support for oil and gas energy projects. All three nominees signaled that they would direct all or almost all of the Innovation funds to oil and gas research projects and not wind and solar projects.

Legal Treatment: [Senator Williams was so upset with the President's decision that he filed a lawsuit. The lawsuit claims that, in order for the Innovation Law to be consistent with the Constitution, the law should have required that the President consult with the Senate prior to selecting his nominees. Williams anticipates that, if he wins his lawsuit, the President would select nominees who would favor wind and solar projects.]

Control Group: [Senator Williams was so upset with the President's decision that he launched a campaign to encourage his fellow senators to reject the President's nominations. Williams anticipates that, if the current nominees are rejected, the President would then select nominees who would favor wind and solar projects.]

Legal Arguments

The legal dispute is centered around whether the manner in which the nominees were selected violated the Appointments Clause of the U.S. Constitution (Article II, Section 2, Clause 2). The Appointments Clause says that "[the President] shall nominate, and by and with the Advice and Consent of the Senate, shall appoint… Officers of the United States."

Williams argues that the text of the Appointments Clause implies that the President should seek the Senate's "advice" before nominating an Officer. The Senate should have some say, Williams argues, in selecting the nominees in addition to having the power to confirm or reject their appointment. Because the President selected his nominees without first seeking the Senate's advice, Williams argues that the process was unconstitutional.

The President's supporters counter that Williams's argument misinterprets the text of the Appointments Clause. The phrase "advice and consent" modifies the act of appointing officers, not nominating them. These supporters argue that the text of the Constitution was carefully selected and that we should not abuse the rules of grammar in order to read into the document what we want to see.

Williams counters that, given the importance of the issue, the President's authority to select

nominees should be balanced against Congress's competing interests. Williams says that if the President had solicited the Senate's advice, the Senators could have persuaded him to nominate officers who better represent the nation's beliefs about energy policy.

The President's supporters counter that the purpose and spirit of the Appointments Clause is to create a balance of power between the Executive and Legislative branches. The President has the sole authority to select the nominees, and if the Senate wants officers who better represent the nation's beliefs, it has the power to reject their appointment.

Policy Arguments

Political supporters of the nominees argue that America should invest more heavily in research into oil and gas energy technologies. Such technologies, they argue, will enable the United States to gain energy independence and grow the economy. They point to economic research which indicates that investments in oil and gas technology can reduce dependence on foreign oil and will help create jobs. They also argue that renewable energy is not capable of powering the nation efficiently or reliably. They point to studies that indicate that oil and gas energy can produce more electricity at a fraction of the cost of renewable energy production.

Senator Williams counters that we should be moving towards cleaner energies that produce less pollution. He points to studies that indicate that renewable and sustainable energy production produces just a fraction of the pollution that oil and gas energy production does. He also argues that investing more in research into renewable and sustainable technology will increase the efficiency of that form of energy production, making renewable and sustainable energy production more reliable and less expensive. We should invest in research into renewable and sustainable technology, he argues, because it will increase the efficiency of an environmentally sound form of energy production.

Your Decision:

Legal Treatment: [Focus only on the facts and issues presented in this brief and act as a Federal Judge. Senator Williams has filed a lawsuit claiming that the President's action and the Innovation Law are inconsistent with the Constitution because it violates the Appointments Clause. Ruling in favor of Williams would, in effect, result in the Agency funding wind and solar projects over oil and gas projects.

Would you rule in favor of Senator Williams declaring that the President's action and the Innovation Law violate the Appointments Clause of the Constitution?

> Yes, I would rule that the President and the Innovation Law violated the Appointments Clause
>
> No, I would not rule that the President and the Innovation Law violated the Appointments Clause]

Control Group: [Focus only on the facts and issues presented in this brief and act as a

Senator. Senator Williams has urged his fellow senators to reject the President's nominations. This would, in effect, result in the Agency funding wind and solar projects over oil and gas projects.

Would you vote to reject the President's nominees?

Yes, I would reject the President's nominees

No, I would not reject the President's nominees]

On a scale of 1 to 7, with 1 being "Not at all confident" and 7 being "Very confident", how confident are you in your answer?

What considerations informed your answers? List all that apply.

Chapter 2 Experiment

Negative Image Treatment (Control = no image):

Before proceeding, please enter the number in the upper left hand corner of the image above.

Legal Treatment: [In this scenario, pretend you are a Federal District Court Judge. You are tasked with determining whether a federal action is consistent with the Constitution. In making your decisions, try to consider only the facts presented in the following excerpts from a brief on the topic. Your decisions should be based on your understanding of constitutional law and the relevant legal principles presented in the brief. A judge should be faithful to the law and should not be swayed by partisan interests, public opinion, or fear of criticism.]

Control Group: [In this scenario, pretend you are a U.S. Senator. You are tasked with determining whether to confirm or reject nominees to a federal agency. In making your decisions, try to consider only the facts presented in the following excerpts from a brief on the topic. Your decision should be based on whatever issues and principles you feel are most important to consider within your role as a Senator.]

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Congress recently passed and the President signed a law called the "Innovation in Energy Production Technology" Law ("Innovation Law"). The purpose of the Innovation Law was to ensure that energy production projects that take place on federal land use state-of-the-art technologies. The Innovation Law was passed with bipartisan support.

One part of the Innovation Law created a special account that would be used to fund research into new energy production technologies. The Law stipulated that the account would be financed with $500 million from the rents and fees that the government collects from companies that use public natural resources. This money would be diverted from funds that would otherwise go to the federal government's General Fund.

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A Controversy Brews: President to Nominate Officers Who Favor Oil and Gas Energy

After the bill went into effect, the President announced that he would nominate three individuals to the agency who had all made public statements declaring their support for oil and gas energy projects. All three nominees signaled that they would direct all or almost all of the Innovation funds to oil and gas research projects and not wind and solar projects.

Legal Treatment: [Senator Williams was so upset with the President's decision that he filed a lawsuit. The lawsuit claims that, in order for the Innovation Law to be consistent with the Constitution, the law should have required that the President consult with the Senate prior to selecting his nominees. Williams anticipates that, if he wins his lawsuit, the President would select nominees who would favor wind and solar projects.]

Control Group: [Senator Williams was so upset with the President's decision that he launched a campaign to encourage his fellow senators to reject the President's nominations. Williams anticipates that, if the current nominees are rejected, the President would then select nominees who would favor wind and solar projects.]

Legal Arguments

The legal dispute is centered around whether the manner in which the nominees were selected violated the Appointments Clause of the U.S. Constitution (Article II, Section 2, Clause 2). The Appointments Clause says that "[the President] shall nominate, and by and with the Advice and Consent of the Senate, shall appoint… Officers of the United States."

Williams argues that the text of the Appointments Clause implies that the President should seek the Senate's "advice" before nominating an Officer. The Senate should have some say, Williams argues, in selecting the nominees in addition to having the power to confirm or reject their appointment. Because the President selected his nominees without first seeking the Senate's advice, Williams argues that the process was unconstitutional.

The President's supporters counter that Williams's argument misinterprets the text of the Appointments Clause. The phrase "advice and consent" modifies the act of appointing officers, not nominating them. These supporters argue that the text of the Constitution was carefully selected and that we should not abuse the rules of grammar in order to read into the document what we want to see.

Williams counters that, given the importance of the issue, the President's authority to select nominees should be balanced against Congress's competing interests. Williams says that if the President had solicited the Senate's advice, the Senators could have persuaded him to nominate officers who better represent the nation's beliefs about energy policy.

The President's supporters counter that the purpose and spirit of the Appointments Clause is to create a balance of power between the Executive and Legislative branches. The President has the sole authority to select the nominees, and if the Senate wants officers who better represent the nation's beliefs, it has the power to reject their appointment.

Policy Arguments

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Senator Williams counters that we should be moving towards cleaner energies that produce less pollution. He points to studies that indicate that renewable and sustainable energy production produces just a fraction of the pollution that oil and gas energy production does. He also argues that investing more in research into renewable and sustainable technology will increase the efficiency of that form of energy production, making renewable and sustainable energy production more reliable and less expensive. We should invest in research into renewable and sustainable technology, he argues, because it will increase the efficiency of an environmentally sound form of energy production.

Your Decision:

Legal Treatment: [Focus only on the facts and issues presented in this brief and act as a Federal Judge. Senator Williams has filed a lawsuit claiming that the President's action and the Innovation Law are inconsistent with the Constitution because it violates the

Appointments Clause. Ruling in favor of Williams would, in effect, result in the Agency funding wind and solar projects over oil and gas projects.

Would you rule in favor of Senator Williams declaring that the President's action and the

Innovation Law violate the Appointments Clause of the Constitution?

Yes, I would rule that the President and the Innovation Law violated the Appointments Clause

No, I would not rule that the President and the Innovation Law violated the Appointments Clause]

Control Group: [Focus only on the facts and issues presented in this brief and act as a Senator. Senator Williams has urged his fellow senators to reject the President's nominations. This would, in effect, result in the Agency funding wind and solar projects over oil and gas projects.

Would you vote to reject the President's nominees?

Yes, I would reject the President's nominees

No, I would not reject the President's nominees]

On a scale of 1 to 7, with 1 being "Not at all confident" and 7 being "Very confident", how confident are you in your answer?

What considerations informed your answers? List all that apply.

Appendix C – Background Questions

Immigration Opinion Questions (Chapter. 1, Experiment 1)

1) Which comes closest to your view about what government policy should be toward unauthorized immigrants now living in the United States?
   a) Make all unauthorized immigrants felons and send them back to their home country
   b) Have a guest worker program that allows unauthorized immigrants to remain
   c) Allow unauthorized immigrants to remain in the United States with certain requirements
   d) Allow unauthorized immigrants to remain in the United States without penalties
   e) Don't know/No opinion

2) Some states have passed a law that will require state and local police to determine the immigration status of a person if they find that there is a reasonable suspicion he or she is an undocumented immigrant. Those found to be in the U.S. without permission will have broken state law. From what you have heard, do you favor, oppose, or neither favor nor oppose these immigration laws?
   a) Favor
   b) Oppose
   c) Neither favor nor oppose
   d) Don't know/No opinion

3) Do you think the number of immigrants from foreign countries who are permitted to come to the United States to live should be:
   a) Increased a lot
   b) Increased a little
   c) Left the same as it is now
   d) Decreased a little
   e) Decreased a lot
   f) Don't know/No opinion

4) How likely is it that recent immigration levels will take jobs away from people already here?
   a) Extremely likely
   b) Very likely
   c) Somewhat likely
   d) Not at all likely
   e) Don't know/No opinion

5) For this question, please rate how you feel towards [unauthorized immigrants][illegal immigrants] using something called a "feeling thermometer." Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward that group. Ratings between 0 degrees and 50 degrees mean that you don't feel favorable toward that group and that you don't care too much for them. You would rate that group at the 50 degree mark if you don't feel particularly warm or cold toward them. If you don't know or have no opinion, please select "NA".

   Using this scale, how would you rate towards [unauthorized immigrants][illegal immigrants]?

Energy Opinion Questions (Chapters 1 & 2)

1) Right now, which ONE of the following do you think should be the more important priority for addressing America's energy supply?

a) Developing alternative sources of energy such as wind, solar, and hydrogen technology
b) Expanding exploration and production of oil, coal, and natural gas
c) Both should be given equal priority

2) Which of the following government policies would you favor or oppose? (Subjects given the option of selecting "Favor Policy," "Oppose Policy," or "Don't Know/No Opinion" for each policy)
a) Allowing more offshore oil and gas drilling in U.S. waters
b) Allowing more mining and drilling on federally owned land
c) Giving tax cuts for oil and gas exploration
d) Requiring better fuel efficiency for cars, trucks and SUVs
e) Spending more on subway, rail, and bus systems.
f) More public funding for wind, solar, and hydrogen energy technology

Political Knowledge Questions

Instructions: Next are some questions to determine how much information about politics gets out to the public. Many people don't know the answers to these questions, but we'd be grateful if you would please answer every question, even if you're not sure what the right answer is. We ask that you please do not look up answers online.

1) How long is the term of office for a United States Senator?
a) 2 years
b) 3 years
c) 4 years
d) 5 years
e) 6 years
f) Don't Know

2) Which party currently has the most members in the House of Representatives in Washington?
a) Republican Party
b) Democratic Party
c) Don't Know

3) How much of a majority is required for the U.S. Senate and House to override a Presidential veto?
a) 1/2 (50%)
b) 3/5 (60%)
c) 2/3 (66%)
d) 3/4 (75%)
e) Don't Know

4) How many members are there in the U.S. House of Representatives?
   a) 100
   b) 435
   c) 538
   d) 1,000
   e) Don't Know

5) On which of the following activities does the U.S. government currently spend the most money?
   a) Social Security
   b) Transportation
   c) Foreign Aid
   d) Interest and the National Debt
   e) I don't know

6) What country is America's largest trading partner, that is, with what country does the United States conducts the greatest amount of foreign trade?
   a) Italy
   b) Brazil
   c) Canada
   d) France
   e) India
   f) Don't Know

7) What job or political office is now held by John Roberts?
   a) President of the United States
   b) Speaker of the House
   c) Chief Justice of the Supreme Court
   d) Chair of the Federal Reserve
   e) Don't Know

8) Whose responsibility is it to determine if a law is constitutional or not?
   a) The Supreme Court
   b) The President of the United States
   c) Congress
   d) Don't Know

9) If a person is arrested for drug possession, what body of law would be most relevant during the ensuing trial?

    a) Civil Law

    b) Criminal Law

    c) Administrative Law

    d) Don't know

10) What is the mandatory retirement age of Supreme Court justices?

    a) 60

    b) 70

    c) 80

    d) There is no mandatory retirement age for Supreme Court justices

    e) Don't know

11) Who appoints justices of the Supreme Court?

    a) President

    b) Congress

    c) They are elected by the people

    d) Other

    e) Don't Know

Cheater Detection: In what year did the Supreme Court of the United States (SCOTUS) decide *Von Moltke v. Gillies*? If you don't know, simply type "Don't know."

Appendix D – Supplemental Tables

Table 3: Probability of Petitioner Winning a Justice's Vote

	(1) OA Date	(2) No Grades
Difference in Laughter	0.199**	-0.004
	(0.070)	(0.013)
Justice's MQ Score	-0.124	-0.247***
	(0.124)	(0.017)
Lower Court Liberal	-0.251	-0.371***
	(0.241)	(0.046)
Lower Court Liberal × Justice's MQ Score	0.580***	0.579***
	(0.057)	(0.019)
Difference in Attorney Grades	0.254**	
	(0.098)	
Petitioner's Status	0.055	0.063***
	(0.042)	(0.009)
Respondent's Status	-0.009	-0.033***
	(0.040)	(0.008)
SG Supports Petitioner	0.202	0.279***
	(0.259)	(0.057)
SG Supports Respondent	-0.432	-0.279***
	(0.317)	(0.066)
Difference in Amicus Briefs	0.067	0.040***
	(0.048)	(0.006)
Salience	-0.026	0.020
	(0.152)	(0.028)
Difference in Laughter × Salience	-0.059	0.044***
	(0.068)	(0.013)
Complex Case	0.058	-0.147**
	(0.233)	(0.049)
Complex Case × Difference in Laughter	-0.303**	0.044
	(0.113)	(0.024)
Difference in Attorney Utterances	-0.020***	-0.014***
	(0.004)	(0.001)
Difference in Justices' Utterances	-0.058***	-0.059***
	(0.006)	(0.003)
Term	0.115*	0.024***
	(0.046)	(0.003)
Civil Liberties	0.161	0.127**
	(0.252)	(0.047)
Economic	-0.309	0.037
	(0.283)	(0.056)
Constant	-229.149*	-48.376***
	(92.399)	(6.838)
Observations	2726	14667

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note Model 1 is a Fixed Effects model with the panel set to the justices and errors clustered on the date of the oral arguments. Model 2 is a Random Effects model with panel set to the justices. Both predict whether an individual justice will vote for the petitioner.