

University of Colorado Law School

Colorado Law Scholarly Commons

Articles

Colorado Law Faculty Scholarship

2017

Cognitive Competence in Executive-Branch Decision Making

Anna Spain Bradley

University of Colorado Law School

Follow this and additional works at: <https://scholar.law.colorado.edu/articles>



Part of the [Administrative Law Commons](#), [Constitutional Law Commons](#), [Law and Psychology Commons](#), and the [President/Executive Department Commons](#)

Citation Information

Anna Spain Bradley, *Cognitive Competence in Executive-Branch Decision Making*, 49 CONN. L. REV. 713 (2017), available at <https://scholar.law.colorado.edu/articles/402>.

Copyright Statement

Copyright protected. Use of materials from this collection beyond the exceptions provided for in the Fair Use and Educational Use clauses of the U.S. Copyright Law may violate federal law. Permission to publish or reproduce is required.

This Article is brought to you for free and open access by the Colorado Law Faculty Scholarship at Colorado Law Scholarly Commons. It has been accepted for inclusion in Articles by an authorized administrator of Colorado Law Scholarly Commons. For more information, please contact lauren.seney@colorado.edu.

HEINONLINE

Citation: 49 Conn. L. Rev. 713 2016-2017

Provided by:

William A. Wise Law Library



Content downloaded/printed from [HeinOnline](#)

Mon Apr 24 11:54:54 2017

-- Your use of this HeinOnline PDF indicates your acceptance of HeinOnline's Terms and Conditions of the license agreement available at <http://heinonline.org/HOL/License>

-- The search text of this PDF is generated from uncorrected OCR text.

-- To obtain permission to use this article beyond the scope of your HeinOnline license, please use:

[Copyright Information](#)

CONNECTICUT LAW REVIEW

VOLUME 49

FEBRUARY 2017

NUMBER 3

Article

Cognitive Competence in Executive-Branch Decision Making

ANNA SPAIN BRADLEY

The decisions Presidents and those operating under their authority take determine the course of our nation and the trajectory of our lives. Consequently, understanding who has the power and authority to decide has captured both the attention of legal scholars across a variety of fields for many years and the immediate worry of the public since the 2016 Presidential election. Prevailing interventions look for ways that law can offer procedural and institutional reforms that aim to maintain separation of powers and avoid an authoritarian regime. Yet, these views commonly overlook a fundamental factor and a more human one: the individuals empowered to make choices on behalf of the nation. In governance, sometimes the problem is legal or institutional. But sometimes a person is the problem.

Taking up this view, this Article investigates how legal scholarship can expand its understanding of executive-branch decision making by adapting insights from neuroscience about how human cognition works. Individuals matter because every instance of executive-branch overreach can be located in a particular decision taken by a specific person. Attending to cognitive functions associated with individual judgment and choice offers a new way of understanding governmental decision making by broadening understanding of the government's decision makers. The key to promoting effective governance, this Article argues, requires renovating how the law understands individual choice and determines who should have the legal authority to make decisions that affect the nation. Adopting a neuroscientifically informed perspective on decision making both produces a more accurate, descriptive understanding of how executive-branch decisions are made and destabilizes existing presumptions that a person is qualified to make decisions of national importance solely because she or he is legally authorized (appointed or otherwise selected) to do so. Who decides matters because, in the end, the difference between good and bad governance often comes down to the choices made by the people who are in charge.

ARTICLE CONTENTS

INTRODUCTION	715
I. EXECUTIVE-BRANCH DECISION MAKERS	722
A. THE LAW OF WHO DECIDES	724
B. REAL DECISION MOMENTS	730
C. DETERMINING WHO SHOULD DECIDE	736
II. HOW BRAINS DECIDE	739
A. PRELIMINARIES AND CONDITIONS	740
B. THE NEUROSCIENCE OF DECISION MAKING	742
III. BARRIERS TO CHANGE	751
A. THE SEDUCTION OF RATIONALITY IN THE AMERICAN LEGAL TRADITION	752
B. THE ILLUSION OF MERITOCRACY	756
C. THE CULTURE OF EXCEPTIONALISM	758
IV. TOWARD A COGNITIVE VIEW OF DECISION-MAKING COMPETENCE	761
A. DEEPEN UNDERSTANDINGS ABOUT EXECUTIVE-BRANCH DECISION MAKING	761
B. SEEK REFORM AT THE INDIVIDUAL LEVEL	763
CONCLUSION	770



Cognitive Competence in Executive-Branch Decision Making

ANNA SPAIN BRADLEY*

INTRODUCTION

The Constitution sets out just three requirements—concerning age, citizenship, and residency—that an individual must meet to be eligible to serve as President of the United States.¹ The law does not concern itself with whether the President is of sound mind or has a record of competent decision making.² Of course, making good decisions is central to the role that the leader of our nation and the commander-in-chief of our military serves. This lack of legal oversight concerning presidential eligibility is even more striking given the expansive—and expanding—powers that Presidents exercise.³ In 1917, President Woodrow Wilson described the Office of the President by saying, “[h]is office is anything he has the sagacity and force to make it.”⁴ When asked in 1977 if the President can decide to do something

* Associate Professor, University of Colorado Law School. My gratitude and thanks to Daniel Abebe, Fred Bloom, Adam Bradley, Harold Bruff, McKell Carston, Jean Galbraith, Peter Huang, Rebecca Ingber, Sarah Krakoff, Jeremy Lack, Doug Noll, Helen Norton, Samuel Rascoff, Pierre Schlag, Ganesh Sitaraman, and participants at the University of Wisconsin School of Law’s Global Legal Studies Speaker Series, the SMU Dedman Law School Faculty Forum, the University of Colorado Law School’s Works-in-Progress Series, and the University of Colorado Law School’s Conference on Mindfulness for helpful comments and suggestions on various drafts. I am grateful to Associate Professor and Director of the Sciences Department Jack Maness of the University of Colorado, and Associate Director of Faculty Research Jane Thompson and Matt Zafiratos of the University of Colorado Law School Library for outstanding research support. Finally, I thank Denis O’Malley and the editors of the *Connecticut Law Review* for their outstanding editing services.

¹ U.S. CONST. art. II, § 1, cl. 5.

² The President does undertake an oath to “take Care that the Laws be faithfully executed.” U.S. CONST. art. II, § 1, cl. 7 & § 3; see Harold H. Bruff, *The President’s Faithful Execution Duty*, 87 UNIV. COLO. L. REV. 1107, 1109 (2016) (providing historical and legal analysis about what the oath has meant over time). There are informal principles and norms about presidential eligibility. See, e.g., Charles Gordon, *Who Can Be President of the United States: The Unresolved Enigma*, 28 MD. L. REV. 1, 1 (1968) (discussing the question of presidential eligibility); Randall Kennedy, *A Natural Aristocracy?*, 12 CONST. COMMENT. 175, 176 (1995) (“All citizens of the United States should have an equal legal right to vie for the Nation’s highest office[.]”); Jordan Steiker et al., *Taking Text and Structure Really Seriously: Constitutional Interpretation and the Crisis of Presidential Eligibility*, 74 TEX. L. REV. 237, 241 (1995) (envisioning a broader category of citizens of the United States who are eligible for the presidency).

³ See HAROLD H. BRUFF, *UNTRODDEN GROUND* 333 (2015) (providing rich analysis of how Presidents have interpreted the Constitution in ways that expand their authority); see also David Brain Robertson, *Historical Institutionalism, Political Development, and the Study of American Bureaucracy*, in *THE OXFORD HANDBOOK OF AMERICAN BUREAUCRACY* 29 (Robert F. Durant ed. 2010) (“On all sides, scholars and political actors began to speculate that the state and its administrators acted more independently of society than had been thought.”).

⁴ WOODROW WILSON, *CONSTITUTIONAL GOVERNMENT IN THE UNITED STATES* 69 (1961).

illegal, President Richard Nixon responded by saying “[w]ell, when the president does it that means it is not illegal.”⁵ Speaking to congressional leadership in 2000, then President-elect George W. Bush quipped “[i]f this were a dictatorship, it’d be a heck of a lot easier, just so long as I’m the dictator.”⁶ Newly elected President Donald Trump has asserted grandiose claims to the power he can wield as President.⁷ Presidential power is made manifest in the choices they make.⁸

One of the ways that Presidents exercise choice is in their appointment and selection of the hundreds of advisers, White House officials, and political appointees that accompany any administration. Presidents are presumed to select people who are competent and highly qualified to do the job, whether in a Cabinet position or as a policy czar. Here, there is little oversight by Congress, outside of the Appointments Clause, governing whom the President hires into his or her administration.⁹ And within that constitutional framework, there is no requirement that measures whether such people are also competent, in the cognitive sense, to serve. In reality, many posts, especially the coveted Secretary of State position, are given to those who have been politically loyal to the President.¹⁰

Scholars evaluate presidential powers and are concerned with the excessive exercise of those powers because it threatens the Madisonian principle of separation of powers so essential to our democracy.¹¹

⁵ In an interview televised on May 19, 1977, David Frost said,

If the President, if, for example, the President approves something, approves an action because of the national security or, in this case, because of a threat to internal peace and order of significant magnitude, then the President’s decision in that instance is one that enables those who carry it out, to carry it out without violating a law.

DAVID FROST, “I GAVE THEM A SWORD”: BEHIND THE SCENES OF THE NIXON INTERVIEWS 164 (1978).

⁶ *Transition of Power: President-Elect Bush Meets with Congressional Leaders on Capitol Hill*, CNN, <http://www.cnn.com/TRANSCRIPTS/0012/18/nd.01.html> [<https://perma.cc/ZVL8-X54Z>] (last visited Nov. 26, 2016).

⁷ *Protecting the Nation From Foreign Terrorist Entry Into the United States*, Exec. Order No. 13,769, 82 Fed. Reg. 8,977 (Jan. 27, 2017), <https://www.federalregister.gov/executive-orders/donald-trump/2017> [<https://www.federalregister.gov/d/2017-02281>] See, e.g., Marc Fisher, *Donald Trump and the Expanding Power of the Presidency*, WASH. POST (July 30, 2016), https://www.washingtonpost.com/politics/donald-trump-and-the-dangers-of-a-strong-presidency/2016/07/30/69cfc686-55be-11e6-b7de-dfc509430c39_story.html [<https://perma.cc/9GAE-MUWV>] (“Trump’s idea that ‘I alone can fix this’ does go beyond the template that President Obama and President Bush before him came in with, the idea that you try to fix things together . . .”).

⁸ MICHAEL J. GLENNON, *CONSTITUTIONAL DIPLOMACY* 164 (1990) (arguing that the core presidential power is negotiation).

⁹ U.S. CONST. art. II, § 2, cl. 3.

¹⁰ George C. Edwards III, *Why Not the Best? The Loyalty-Competence Trade-Off in Presidential Appointments*, BROOKINGS (Mar. 1, 2001), <https://www.brookings.edu/articles/why-not-the-best-the-loyalty-competence-trade-off-in-presidential-appointments/> [<https://perma.cc/9P5U-8JXW>].

¹¹ See generally THE FEDERALIST NO. 51, 323 (James Madison) (Clinton Rossiter ed., 1961) (discussing the need for government to be structured in a manner that provides proper checks and balances); THE FEDERALIST NO. 47, at 298 (James Madison) (Clinton Rossiter ed., 1961) (“The accumulation of all powers, legislative, executive and judiciary, in the same hands, whether of one, a few, or many, and whether hereditary, self-appointed, or elective, may justly be pronounced the very definition of tyranny.”); see also *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 637–38 (1952)

Understanding what our laws permit a President to do under various circumstances has captured scholarly attention for decades.¹² There are proposals about how law can constrain such power through legal reform and institutional design.¹³ We find examinations of if and how international law can alter the course of presidential powers.¹⁴ Debates ensue over when direct presidential control is optimal and when delegation of responsibility to other actors in the executive branch is warranted.¹⁵ Much of the concern is over who gets to decide and the role of law in evaluating such delegation.¹⁶ As

(Jackson, J., concurring) (“When the President takes measures incompatible with the expressed or implied will of Congress, his power is at its lowest ebb, for then he can rely only upon his own constitutional powers minus any constitutional powers of Congress over the matter. . . . Presidential claim to a power at once so conclusive and preclusive must be scrutinized with caution, for what is at stake is the equilibrium established by our constitutional system.”). For views critical of the validity and tenacity of Madisonian-based understandings of separation of powers, see Jacob E. Gersen & Adrian Vermeule, *Essay, Delegating to Enemies*, 112 COLUM. L. REV. 2193, 2204–05 (2012) (arguing that separation of powers problems arise because of inter-branch agreement); Daryl J. Levinson & Richard H. Pildes, *Separation of Parties, Not Powers*, 119 HARV. L. REV. 2311, 2316 (2006) (analyzing separation of powers through the frame of party-competition).

¹² For authors tracing the expansion of presidential power over time and analyzing the consequences, see BRUCE ACKERMAN, *CONSTITUTIONAL ALARMISM: THE RISE AND FALL OF THE AMERICAN REPUBLIC 6* (“emphasizing the danger of a runaway presidency”) (2010); HAROLD H. BRUFF, *BAD ADVICE: BUSH’S LAWYERS IN THE WAR ON TERROR* 289–90 (2009) (arguing that Congress should be more vigilant in its oversight of the executive branch); JACK GOLDSMITH, *POWER AND CONSTRAINT: THE ACCOUNTABLE PRESIDENCY AFTER 9/11*, at 25–27 (2012) (identifying structural constraints to the President’s capacity to alter national security positions); JACK GOLDSMITH, *THE TERROR PRESIDENCY: LAW AND JUDGMENT INSIDE THE BUSH ADMINISTRATION* 215–16 (2007) (arguing that the threat of terrorist groups will result in the presidency assuming more power and needing more democratic accountability); RICHARD NATHAN, *THE ADMINISTRATIVE PRESIDENCY* (1983); ARTHUR SCHLESINGER JR., *THE IMPERIAL PRESIDENCY* (1973); see also Elena Kagan, *Presidential Administration*, 114 HARV. L. REV. 2245, 2249 (2001) (“Where once presidential supervision had worked to dilute or delay regulatory initiatives, it served in the Clinton years as part of a distinctly activist and pro-regulatory governing agenda.”); Lawrence Lessig & Cass R. Sunstein, *The President and the Administration*, 94 COLUM. L. REV. 1, 4 (1994) (“Any faithful reader of history must conclude that the unitary executive, conceived in the foregoing way, is just myth.”); Trevor W. Morrison, *Constitutional Avoidance in the Executive Branch*, 106 COLUM. L. REV. 1189, 1195 (2006) (“provid[ing] the analytical tools for evaluating executive uses of the avoidance canon.”).

¹³ See Dawn E. Johnsen, *Faithfully Executing the Laws: Internal Legal Constraints on Executive Power*, 54 UCLA L. REV. 1559, 1565 (2007) (examining executive-branch legal interpretation); Neal Kuman Katyal, *Internal Separation of Powers: Checking Today’s Most Dangerous Branch from Within*, 115 YALE L.J. 2314, 2318 (2006) (proposing reforms to the unitary executive that allow for internal checks and balances); Elizabeth Magill & Adrian Vermeule, *Allocating Power Within Agencies*, 120 YALE L.J. 1032, 1059 (2011) (“[E]mphasiz[ing] that ‘agencies’ are not unitary actors and can be internally fractured in a de facto sense.”).

¹⁴ Rebecca Ingber, *International Law Constraints as Executive Power*, 57 HARV. INT’L L.J. 49, 109 (2016) (“[T]here are a number of critical areas where the Executive acts unilaterally, even secretly, and due to some mix of judicial and congressional abdication or ignorance there is little to no room for intervention.”).

¹⁵ See Samuel J. Rascoff, *Presidential Intelligence*, 129 HARV. L. REV. 633, 637 (2016) (arguing that the President should execute direct control over the realm of intelligence gathering); Matthew C. Waxman, *Police and National Security: American Local Law Enforcement and Counter-Terrorism After 9/11*, 3 J. NAT’L SECURITY L. & POL’Y 377, 378 (2009) (arguing that the overwhelming scholarly attention focused on federal national security law overlooks the legal debates playing out at a local level).

¹⁶ Aziz Rana, *Who Decides on Security?*, 44 CONN. L. REV. 1417, 1425 (2012) (“[T]oday’s security concept . . . shapes current discussions of threat and foreign policy in ways that often inhibit rather than promote actual security.”).

Justice Jackson expressed in his concurring opinion in *Youngstown Sheet & Tube Co. v. Sawyer*,¹⁷ the central concern stems from executive action that “originates in the individual will of the President and represents an exercise of authority without law.”¹⁸

But these legal interventions into presidential power often overlook a fundamental factor and a human one: the people empowered to make decisions within the executive branch on the President’s behalf. In governance, sometimes the problem is legal or institutional. But sometimes a person is the problem.¹⁹ Every instance of executive-branch overreach is rooted in a particular decision taken by a particular person (or group of people). When a President or his administration blunders, it occurs at the hands of an individual or set of individuals who made the wrong choice. But the law rarely intervenes into the cognitive competencies that influence an individual’s capacity for effective decision making.

This Article argues that it should. To do so, the Article develops the connection between executive-branch decision making and the individuals responsible for deciding.²⁰ I use insights from neuroscience to describe cognitive competence²¹ in decision making. I then explore several monumental and well-known executive-branch decision moments (e.g., torture, targeted killing, and the use of atomic bombs) to expose how considerations beyond facts and law, such as emotion or empathy, can influence executive-branch decision makers. I introduce neuroscientific studies that explore and explain why these considerations matter in human cognition associated with decision making in ways that law has yet to appreciate.

The central claim is that understanding cognitive competence is essential to understanding general decision-making competence. The Article supports this view by deepening descriptive understandings about how individual choice shapes executive-branch governance far more than previously acknowledged. This humanization of governmental decision

¹⁷ *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 634 (1952) (Jackson, J., concurring).

¹⁸ *Id.* at 655 (“No one, perhaps not even the President, knows the limits of the power he may seek to exert in this instance and the parties affected cannot learn the limit of their rights.”).

¹⁹ See, e.g., Conor Friedersdorf, *Remembering Why Americans Loathe Dick Cheney*, ATLANTIC (Aug. 30, 2011), <http://www.theatlantic.com/politics/archive/2011/08/remembering-why-americans-loathe-dick-cheney/244306/> [<https://perma.cc/ZXS2-9THX>] (discussing how Vice President Dick Cheney’s performance in office was widely criticized).

²⁰ This Article investigates how neuroscience can inform law and decision making. The focus on process necessarily requires contextualization, and the context here is executive-branch decision making. In doing so, this Article ranges widely over several substantive legal areas, including constitutional law, administrative law, national security law, and international law.

²¹ The term “cognitive competence,” as used here, refers to the capacity for appropriate brain-based processes invoked in decision making functions. These include memory, perception, choice, judgment, executive function, capacity to plan, foresight, problem solving, empathy, emotion, self-understanding through reflection, and switching between directional and abstract thought. Cognitive competencies are a part of a broader set of decision making competencies that may include criteria like expertise, education, knowledge, etc.

making aims to prompt scholars to engage the implications of human cognition in their investigations into presidential powers and executive branch reform.

The Article offers two signal contributions. First, it introduces how neuroscientific insights can enrich traditional understandings about government decision making.²² In doing so, this Article advances a novel neurolaw addition to legal scholarship on presidential power and executive-branch decision making.²³ The neuroscience helps explain what the behavioral sciences observe: that human decision making is complex and people often make poor choices.²⁴ Such findings further advance earlier

²² Scholarship on government decision making is heavily influenced by rational choice theory. See PAUL BREST & LINDA HAMILTON KRIEGER, *PROBLEM SOLVING, DECISION MAKING, AND PROFESSIONAL JUDGMENT: A GUIDE FOR LAWYERS AND POLICYMAKERS* 366 (2010) (“People are in principle capable of pursuing their ends—whatever they may be—in a rational manner.”); ALEX MINTZ & CARLY WAYNE, *THE POLYTHINK SYNDROME* 3 (2016) (describing ways in which “rational decision makers engage in flawed decision making process that deeply affect the security and welfare of a country”). But see Gregory M. Herek et al., *Decision Making During International Crises*, 31 J. CONF. RES. 203, 203–04 (1987) (explaining why rational choice theory is descriptively and normatively inadequate for improving the quality of decisions). For rationalist approaches of executive-branch decision making in the context of War Powers see, e.g., Jide Nzelibe & John Yoo, *Rational War and Constitutional Design*, 115 YALE L. J. 2512 (2006). But see Paul F. Diehl & Tom Ginsburg, *Essay, Irrational War and Constitutional Design: A Reply to Professors Nzelibe and Yoo*, 27 MICH. J. INT’L L. 1239 (2006).

²³ This is one of, if not the first article to apply insights from neuroscience to decision making in the executive-branch context. For a comprehensive list of the nascent legal scholarship engaging cognitive neuroscience in tort, criminal law, and other areas, see *infra* Section II.

²⁴ See *infra* note 136 and accompanying text (providing a literature review of individual neuroscientific studies that support this general insight); For behavioral approaches to decision making see RICHARD H. THALER & CASS R. SUNSTEIN, *NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS* 66 (2008) (claiming that desirable behavior can be increased by drawing public attention to what others are doing); Cass R. Sunstein, *Introduction* to *BEHAVIORAL LAW AND ECONOMICS* I, 5–6 (Cass R. Sunstein ed., 2000) (presenting various rational choice models and explaining that people are displeased with losses); Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1471, 1473–75 (1998) (explaining that the field of economics may be undermined because humans do not always make rational economic choices); Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CALIF. L. REV. 1051, 1074–75 (2000) (asserting that scholars of law and behavioral science seek to understand why individuals sometimes behave irrationally in their decision making). For the limited body of legal scholarship beginning to engage behavioral psychology and behavioral economics in the realm of government decision making, see Ganesh Sitaraman & David Zions, *Behavioral War Powers*, 90 N.Y.U. L. REV. 516, 521–23 (2015) (applying insights from behavioral psychology to the legal debate on presidential war powers). For international legal scholarship in this area, see Jean Galbraith, *Treaty Options: Towards a Behavioral Understanding of Treaty Design*, 53 VA. J. INT’L L. 309, 310, 312, 356 (2013) (discussing the link between individual cognitive errors and state-decision errors in consenting to treaties and arguing that international legal actors should incorporate insights from choice architecture into their decision making); Ryan Goodman et al., *Introduction: Social Science and Human Rights*, in *UNDERSTANDING SOCIAL ACTION, PROMOTING HUMAN RIGHTS* 6–7, 16–17 (Ryan Goodman et al. eds., 2012) (describing the new research in empirical economics and social psychology); Andrew K. Woods, *A Behavioral Approach to Human Rights*, 51 HARV. INT’L L.J. 51, 52–56 (2010) (investigating the implications of recent behavioral insights, including behavioral economics, on the international human rights regime today); Anne van Aaken, *Comment, Towards Behavioral International Law and Economics*, 2008 U. ILL. L. REV. 47, 47–49, 57–59 (2008) (describing the influence of the Law and Economics movements on international law).

investigations into decision making that go beyond rational choice theory.²⁵

The Article's second contribution is its most destabilizing. By opening up the descriptive understanding of decision making at the individual level, this Article calls for sustained investigation into what decision-making competencies, cognitive and otherwise, are desirable and optimal for particular positions. It argues that cognitive competence should become a component of the broader set of competencies considered in authorizing a person to hold a powerful executive-branch post. This, in turn, challenges traditional practices about who is deemed eligible and how people are selected. Assuming that executive officials are competent to hold a given position based solely on the President's appointment, the Senate's approval, or an unspecified sense of exceptionalism derived from one's education, pedigree, or special access to knowledge, is not good enough.

Take the position of National Security Advisor, for example. Since 1947, forty-seven individuals have served in this important post. What qualifies them to do so? Prior practice suggests that an Ivy League education and military experience is key.²⁶ But prior practice also suggests that being a white male matters, given that all but three NSAs share this identity.²⁷ However, there is no sustained inquiry into how these criteria predict optimal performance for those who have served. Instead, their competence to do the job of NSA is assumed. Making such assumptions is inadequate given the power that such an individual can wield. This Article invokes neuroscience to prompt legal scholars and political leaders to think more critically about what set of competencies are necessary to thrive as a top executive-branch decision maker. It also calls for further scholarly consideration about how law can better inform who is selected to decide.

The application of neuroscientific studies to legal scholarship requires care and restraint. Accordingly, the following contextualization applies.²⁸

²⁵ See IRVING L. JANIS, *GROUPTHINK: PSYCHOLOGICAL STUDIES OF FOREIGN POLICY DECISIONS AND FIASCOS* (1982) (setting forth the argument that the quality of the decision making process influences the quality of the decisions made in the foreign-policy context); *BEYOND GROUPTHINK: POLITICAL DYNAMICS AND FOREIGN POLICY-MAKING* (Paul't Hart, Eric K. Stern, & Bengt Sundelius eds., 1997); DOMINIC JOHNSON, *OVERCONFIDENCE AND WAR: THE HAVOC AND GLORY OF POSITIVE ILLUSIONS* 5 (2004) (arguing that overconfidence is an adaptive trait of human evolutionary biology and a contributing factor of war).

²⁶ See *infra* Section I.C.

²⁷ See *infra* Section I.C for chart.

²⁸ See *infra* Section II.A for additional information. Neuroscientists are cautionary about their findings on two fronts relevant to this Article. First, they aim to make claims consistent with what the state of the current science supports. Second, they aim for a predictive quality, that is, to make claims that will continue to be consistent with future data. This Article aims to achieve the first standard but humbly leaves the second aim to the neuroscientists. The Article acknowledges limitations in using brain data to make claims about mental and cognitive capacities. See, e.g., Russell A. Poldrack, *Can Cognitive Processes Be Inferred from Neuroimaging Data?*, 10 *TRENDS IN COGNITIVE SCI.* 59, 59, 62 (2006) (describing the limitations on the "reverse inference" practice, which is a functional neuroimaging technique used to understand better the nature of cognition). For an overview of scholarship at the intersection of law and neuroscience, see MICHAEL S. PARDO & DENNIS PATTERSON, *MINDS, BRAINS,*

The claims I extend are based on studies in cognitive neuroscience that analyze the relationship between the brain's physical structure and its mental processes that influence decision making—such as memory, emotion, and empathy.²⁹ I utilize findings that have received wide support in their sub-fields and have been verified by multiple studies using a variety of imaging approaches.³⁰ I then posit what such insights might mean for decision makers in the government context. Neuroscientific studies have revealed important knowledge about what can occur in the brain during decision making. These studies shed light on how *a* brain works but not on how *all* brains work, or on how groups work together. Throughout the Article, I assume that increased understanding about how the brain functions in making decisions is normatively positive. I further assume that this increased understanding will optimize the capacity to make better choices.³¹ In keeping within these constraints, the Article's aim is not to propose specific prescriptions but to demonstrate the value of further study at the intersection of law, neuroscience, and decision making.

The Article is organized as follows. Section I frames the central concern to which the Article responds—that the legal authorization for selecting executive-branch decision makers does not account for decision-making competency. Instead, the Senate or the President may presume a person is competent based on factors that are not, on their own, good indicators of decision-making competence, such as education or a prior personal relationship. Section II contrasts these views with modern evidence from neuroscience that explains why people, and therefore why executive-branch decision makers, are prone to be influenced by emotion, empathy, and bias in ways that influence cognition and may lead to poor choices. It also describes cognitive complexities of decision making not presently accounted for by legal understandings. Section III considers the barriers that neuroscience is up against by tracing the historical reliance in American legal thought on concepts of rationality, meritocracy, and exceptionalism as markers of decision-making competence. Section IV considers the broader

AND LAW: THE CONCEPTUAL FOUNDATIONS OF LAW AND NEUROSCIENCE 47–78 (2013) (discussing neuroscience and legal theory).

²⁹ See generally MICHAEL S. GAZZANIGA ET AL., COGNITIVE NEUROSCIENCE: THE BIOLOGY OF THE MIND (3d ed. 2009) (providing a general overview of the field).

³⁰ See, e.g., NEUROSYNTH, <http://neurosynth.org/analyses/terms/executive%20control//https://perma.cc/X3SK-VQ32> (last visited Dec. 30, 2016). Neurosynth is a platform for accessing data from functional magnetic resonance imaging (fMRI) studies. For example, a search on Executive Control provides data on automated meta-analysis of 157 studies of executive functions of the brain that present as images with reverse or forward inferences. See Interview with R. McKell Carston, Assistant Professor of Psychology and Neuroscience, Univ. of Colo. (Jan. 19, 2016) (describing Neurosynth: “Reverse inference says approximately: if I was handed a map with activation here what would kind of experiment did it likely come from? Forward inference says approximately: if I did an experiment on executive function where would I be likely to find activation? The difference is between inferring mental processes from activation (reverse) and having a reliable idea of what activations a given experiment will produce.”).

³¹ See, e.g., CASS R. SUNSTEIN & REID HASTIE, WISER: GETTING BEYOND GROUPTHINK TO MAKE GROUPS SMARTER (2014) (making the same assumption).

implications of these findings. It calls for developing a richer descriptive account of how decision making works to understand how individuals motivate decisions adopted within the executive branch. It offers two hypotheticals that map neuroscientific insights about what happens inside our brains onto real examples of executive-branch decision making. This supports the Article's qualified normative argument that neuroscience ought to inform the selection of critical government decision makers and the legitimization of those individuals chosen under the law. This query into law's conceptualization of competence upsets accepted presumptions in order to advance the cultivation of better decision makers and of better government.

I. EXECUTIVE-BRANCH DECISION MAKERS

The study of American governance is also a study of decision making. Law derived from our Constitution provides the decision-making labyrinth—it structures who gets to decide according to a Madisonian principle designed to sustain a government capable of checks and balances and resistant to despotic rule. The Constitution vests certain exclusive and, at times, unparalleled powers in the President and the executive branch that are often invoked during times of war or other crises.³² The prevailing rationale for this has been a presumption that the President and those under his or her authority are best suited to make certain decisions due to special knowledge and expertise.

Due to this framework, America has been greatly shaped since the beginning by the individuals that have served as President. George Washington's presidency framed what the Office of the President and the executive branch would become. He established precedents that remain to this day: for example, that the President can select persons to negotiate foreign policy on behalf of the nation without Senate consent.³³ And Washington's choices were naturally guided by his own values; a commitment to the principle of rule of law, civic virtue, and the unitary public interest; and the particularities of his personality.³⁴ Other Presidents' personal values have been less constructive. Andrew Johnson's presidency, for example, was shaped by his known racism, which greatly influenced how the nation approached Reconstruction after the Civil War.³⁵ In either case,

³² See U.S. CONST. art. II, § 2 (“The President shall be commander in chief of the Army and Navy of the United States . . .”); *Ex parte Quirin*, 317 U.S. 1, 6, 8–9 (1942), *modified sub nom.* U.S. *ex rel. Quirin v. Cox*, 63 S. Ct. 22 (1942) (holding that special military commissions created by the President to try suspected Nazi saboteurs during World War II are not to be set aside by the courts without clear conviction). *But see* Hamdi v. Rumsfeld, 542 U.S. 507, 536 (2004) (“[The Court has] made clear that a state of war is not a blank check for the President when it comes to the rights of the Nation's citizens.”).

³³ BRUFF, *supra* note 3, at 42.

³⁴ *Id.* at 25–27.

³⁵ *Id.* at 157–58, 160.

the electorate understands that the person it elects on Election Day will determine the course of our nation, and of history.

What is less understood and more recondite is the source and amount of authority and power that the lesser officials working on behalf of the President within the executive branch have to make decisions that affect the nation. Questions about just how far the delegation of the presidential decision-making authority should extend through the ranks of the executive branch abound, as officials therein hold more power than ever before.³⁶ As threats to our nation's security have increased, particularly in the aftermath of the attacks on September 11, 2001, so too have the government's legal authority and institutional capacity for meeting such threats.³⁷ Within the executive branch there are at least forty-six federal agencies and departments that play a role in national security decision making.³⁸ In recent years, individuals other than the President made choices that have afforded the use of torture techniques banned by the Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment,³⁹ and permitted the

³⁶ For two cases where the Supreme Court struck down the delegation of congressional powers to the executive branch, see *Panama Ref. Co. v. Ryan*, 293 U.S. 388 (1935), and *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935). *Panama* was struck down because it gave the President unlimited authority to create policy and unlimited authority to determine the consequences of violating such policy. *Panama*, 293 U.S. at 415. In *Schechter*, the Supreme Court noted that “[t]his is delegation running riot.” *Schechter*, 295 U.S. at 553. The Court has also struck down cases of delegation to private parties. See, e.g., *Carter v. Carter Coal Co.*, 298 U.S. 238, 311 (1936) (“The power conferred upon the majority is, in effect, the power to regulate the affairs of an unwilling minority.”).

³⁷ See Dana Priest & William M. Arkin, *A Hidden World, Growing Beyond Control*, WASH. POST, <http://projects.washingtonpost.com/top-secret-america/articles/a-hidden-world-growing-beyond-control/> [https://perma.cc/YQ65-5L4D] (last visited Nov. 26, 2016) (“Some 1,271 government organizations and 1,931 private companies work on programs related to counterterrorism, homeland security and intelligence in about 10,000 locations across the United States.”)

³⁸ See COMM. ON OVERSIGHT & GOV'T REFORM, 112TH CONG., POLICY AND SUPPORTING POSITIONS iii (Comm. Print 2012) [hereinafter *Plum Book*] (“[C]ontain[ing] data . . . on over 8,000 Federal civil service leadership and support positions in the legislative and executive branches of the Federal Government that may be subject to noncompetitive appointment.”); Lyndsey Layton & Lois Romano, “*Plum Book*” is Obama's Big Help-Wanted Ad, WASH. POST (Nov. 13, 2008), <http://www.washingtonpost.com/wp-dyn/content/article/2008/11/12/AR2008111203303.html> [https://perma.cc/A75L-47T5] (estimating that one third of the 8,000 jobs are presidential appointments); Priest & Arkin, *supra* note 37 (“An estimated 854,000 people . . . hold top-secret security clearances.”); Camille Tuutti, *How to Become a Presidential Appointee*, FCW (Nov. 9, 2012), <https://fcw.com/articles/2012/11/09/hire-presidential-appointees.aspx> [https://perma.cc/D2WZ-T7W9] (estimating that approximately 4,200 jobs are at the discretion of the administration and 500–600 jobs have statutory exceptions or other limitations); see also MICHAEL J. GLENNON, NATIONAL SECURITY AND DOUBLE GOVERNMENT 16–18 (2015) (describing the institutions and actors engaged in classified national security work as the “Trumanite Network”).

³⁹ Memorandum from Jay S. Bybee, Assistant Attorney Gen., on Standards of Conduct for Interrogation under 18 U.S.C. §§ 2340–2340A, to Alberto R. Gonzales, Counsel to the President 1, 46 (Aug. 1, 2002), <http://nsarchive.gwu.edu/torturingdemocracy/documents/20020801-1.pdf> [https://perma.cc/BS4S-PFFU]; Memorandum from John Yoo, Deputy Assistant Attorney Gen., on Application of Treaties and Laws to al Qaeda and Taliban Detainees, to William J. Haynes II, Gen. Counsel of the Dep't of Def. 6 (Jan. 9, 2002), <http://nsarchive.gwu.edu/torturingdemocracy/documents/20020109.pdf> [https://perma.cc/9ALR-UHWL]. For the treaty language, see Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment art. 1.1., *opened for signature* Dec. 10, 1984, S. Treaty Doc. No. 100–20, 1465 U.N.T.S. 85, <https://treaties.un.org/doc/>

targeted killing by drone of a U.S. citizen in a foreign country suspected of terrorism and his son, who was not a suspect.⁴⁰ Scores of other individuals have made consequential national-security decisions that remain secret.⁴¹ Some 854,000 government employees are believed to hold top-secret clearance for classified government work.⁴² The network of decision makers now defies description, leading to increased concerns about the expansion of executive-branch decision making and the reality of a “double government.”⁴³ But how far does the President’s constitutionally derived authority reach? What does the law require of other executive-branch decision makers? Beyond norms built upon previous practice, what guidance clarifies the level and scope of decision-making authority within the executive branch? This Section explores the law pertaining to executive-branch decision making at two levels: those appointed to serve and those selected by the President to serve without Senate consent. It then examines actual individuals who have served and some of the choices they have made.

A. *The Law of Who Decides*

1. *The Appointments Clause*

The Constitution provides that the President and the Senate shall share the power to appoint principal officers within the executive branch. The particulars of such authority derive from the Appointments Clause, which provides the U.S. Senate with oversight in the form of consent over who the President may nominate as principal officers.⁴⁴ First, the President selects

Publication/UNTS/Volume%201465/volume-1465-1-24841-English.pdf

[<https://perma.cc/9P32-PGEX>].

⁴⁰ See Memorandum from David J. Barron, Acting Assistant Attorney Gen., on Applicability of Federal Criminal Laws and the Constitution to Contemplated Lethal Operations Against Shaykh Anwar al-Aulagi, to the Attorney Gen. 22–23 (July 16, 2010), http://www.justice.gov/sites/default/files/olc/pages/attachments/2015/04/02/2010-07-16_-_olc_aaga_barron_-_al_aulagi.pdf [<https://perma.cc/6LA9-SJ3F>] (considering whether U.S. citizenship precludes the AUMF from providing legal authority to engage in targeted killing through the use of Unmanned Aerial Vehicles, and finding it is not unlawful). Ryan Browne, *Daughter of Anwar Al-Awlaki Reported Killed in Yemen Raid*, CNN (Feb. 1, 2017), <http://www.cnn.com/2017/01/31/politics/yemen-raid-daughter-al-qaeda-leader/> [<https://perma.cc/XT5J-C8GJ>] (reporting the death of 8-year old Nawar Anwar al-Awlaki as a result of the U.S. and UAE raid against a suspected Al-Qaeda base).

⁴¹ See, e.g., David E. Pozen, *Deep Secrecy*, 62 STAN. L. REV. 257, 257, 260–61, 315–17 (2010) (describing the structural aspects of government secrets).

⁴² Priest & Arkin, *supra* note 37.

⁴³ See GLENNON, *supra* note 38, at 16–18 (arguing that U.S. national security policy is controlled more by a concealed “Trumanite network” and less by the president, and describing the threats this form of double government poses for American democracy and legitimacy); GOLDSMITH, *supra* note 12, at 69–72 (describing the extent of “secret” war activities taken by the executive); and Priest & Arkin, *supra* note 37 (describing that the top-secret government has been expanding since 9/11 terrorist attacks).

⁴⁴ U.S. CONST. art. II, § 2, cl. 2 (“[The President] shall nominate, and by and with the Advice and Consent of the Senate, shall appoint Ambassadors, other public Ministers and Consuls, Judges of the supreme Court, and all other Officers of the United States, whose Appointments are not herein otherwise provided for, and which shall be established by Law: but the Congress may by Law vest the Appointment of such inferior Officers, as they think proper, in the President alone, in the Courts of Law, or in the

and nominates an officer. Next, the Senate considers and confirms that nomination. Finally, the President officially appoints the confirmed nominee who is then sworn into office.⁴⁵ Additional procedures for making an appointment to an advice-and-consent position are laid out in Senate Rule XXV.⁴⁶ If the position is considered an “inferior” officer, the President may make such an appointment without the involvement of Congress under the so-called Excepting Clause.⁴⁷ Over the years, the exact scope of authority between the Senate and the President has been tested, but the authority and legitimacy of those individuals serving in the executive branch under the Appointments Clause is clearly derived from the Constitution.⁴⁸ Thus, their capacity to be entrusted with high-level decisions enjoys a legitimacy that extends from our Constitution.

The list of advice-and-consent positions in our modern executive branch is vast.⁴⁹ These include well-known Cabinet-level posts at the rank of Secretary, Deputy Secretary, Under Secretary, Assistant Secretary, and often the general counsels and inspectors general of agencies.⁵⁰ There are less well-known positions requiring Senate consent such as the Librarian at the Library of Congress or the Architect of the Capitol.⁵¹ Under the Necessary and Proper Clause, Congress puts forth qualifications for holding certain appointments, further limiting whom the President can nominate, although the qualification power is itself constrained.⁵² Other general restrictions apply. For example, an executive-branch officer may not serve in the Congress at the same time.⁵³ The basis for involving the Senate in high-level executive-branch appointments is both to restrict presidential authority and to grant additional legitimacy to whomever is ultimately chosen to serve.

Heads of Departments.”)

⁴⁵ CHRISTOPHER M. DAVIS & MICHAEL GREENE, CONG. RESEARCH SERV., RL 30959, PRESIDENTIAL APPOINTEE POSITIONS REQUIRING SENATE CONFIRMATION AND COMMITTEES HANDLING NOMINATIONS I (2016).

⁴⁶ *Id.*

⁴⁷ U.S. CONST., art. II, § 2, cl. 2.

⁴⁸ *See, e.g.,* *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803); *see also* *Edmond v. United States*, 520 U.S. 651, 666 (1997) (validating judicial appointments in conformity with the Appointments Clause); *Morrison v. Olson*, 487 U.S. 654, 670 (1988) (categorizing Constitutional appointments into two classes: principal and inferior officers); *Weiss v. United States*, 510 U.S. 163, 176 (1994) (holding that appointment of military judges satisfies the Appointments Clause); *Buckley v. Valeo*, 424 U.S. 1, 113 (1976) (deciding the process for appointing members to the Federal Election Committee); *Myers v. United States*, 272 U.S. 52, 163–64 (1926) (holding that the President has the exclusive power to remove executive-branch officials and does not need the approval of the Senate or any other legislative body).

⁴⁹ *See* CONG. RESEARCH SERV. RL 30959, *supra* note 45, at 5–47 (listing all the positions requiring Senate consent).

⁵⁰ *Plum Book*, *supra* note 38.

⁵¹ CONG. RESEARCH SERV. RL 30959, *supra* note 45, at 45.

⁵² *See* David A. Strauss & Cass R. Sunstein, *The Senate, the Constitution, and the Confirmation Process*, 101 YALE L.J. 1491, 1519 (1992) (describing the Senate’s power to reject nominees if they lack requisite qualities); John O. McGinnis, Essay, *The President, the Senate, the Constitution, and the Confirmation Process: A Reply to Professors Strauss and Sunstein*, 71 TEX. L. REV. 633, 644 (1993) (noting the limitations of the Senate’s ability to reject nominees based on requisite qualities).

⁵³ U.S. CONST., art. I, § 6, cl. 2.

Such legitimacy is thought necessary given the power of the appointment. But the law stops there. It does not delve into the particulars of what qualifications a nominee ought to have. In addition, external factors, such as timing, often influence the Senate's determinations on nominees.

Consider the appointment of the first Director of Homeland Security (DHS), Tom Ridge. Eleven days following September 11, 2001, President George W. Bush nominated Ridge, then Governor of Pennsylvania, to serve as DHS director.⁵⁴ Although Ridge began work immediately, his confirmation by the Senate did not take place until 2003.⁵⁵ During deliberations of the Senate Committee on Governmental Affairs, Chairman Susan M. Collins expressed that Ridge was "exactly the right person for the job. His background, temperament, and experience make him ideally qualified. . . . These impressive credentials speak to the character of a remarkable man."⁵⁶ Ridge served in the U.S. Army during the Vietnam War and graduated from Harvard University before earning his J.D. from Dickinson School of Law.⁵⁷

This background, along with his service as governor, became the qualities that Senators highlighted to make the case that Ridge was more than competent for his new post. In doing so, they assumed a connection between these criteria and the capacity to serve well. But were a legal education and military experience the right markers of excellence to consider? The Senators did not know and the legal process does not inform them of the ideal qualities a candidate should possess.

Perhaps it should. As the first person to serve in this newly created role, Ridge exerted a tremendous amount of influence over what DHS would become and the power it would exert in the post-9/11 world. However, some were critical of his inability to wrangle control away from the CIA and the FBI in order to prepare DHS to take the lead it was meant to exercise.⁵⁸ The concern is that individuals can be formally appointed into very powerful positions with no inquiry into what competencies are needed for the job.

⁵⁴ The Department was formally created under the Homeland Security Act on Nov. 25, 2002, which consolidated twenty-two agencies under its purview. Homeland Security Act of 2002, Pub. L. No. 107-296 §§ 1-1717, 116 Stat. 2135 (Nov. 25, 2002); *Creation of the Dep't of Homeland Security*, DEP'T OF HOMELAND SEC., <http://dhs.gov/creation-department-homeland-security> [https://perma.cc/Y599-XWGS] (last visited Nov. 28, 2016).

⁵⁵ Ridge was confirmed by the Senate on Jan. 22, 2003. *Nomination of Hon. Thomas "Tom" J. Ridge to be Secretary of Homeland Security*, Hearing before the Comm. on Governmental Affairs, 108th Cong. 108-45 (2003).

⁵⁶ *Id.* at 2.

⁵⁷ *Thomas J. Ridge, Homeland Security Secretary 2003-2005*, DEP'T OF HOMELAND SEC., <http://www.dhs.gov/thomas-j-ridge> [https://perma.cc/3ZWB-YEH5] (last visited Nov. 28, 2016).

⁵⁸ Daniel B. Prieto, *Ridge's Mixed Legacy on Homeland Security*, CHI. TRIB. (Dec. 5, 2004), http://articles.chicagotribune.com/2004-12-05/news/0412040365_1_tom-ridge-terrorist-threat-integration-center-homeland-security-act [https://perma.cc/SDZR-2VMK] (discussing Ridge's failures, e.g., to place the Terrorist Threat Integration Center and the Terrorist Screening Center under DHS command. They went to CIA and FBI, respectively, allegedly after CIA Director George Tenet and FBI Director Robert Mueller lobbied President Bush).

Moreover, once confirmed by the Senate, a person enjoys the color of legality afforded them by the appointment process, which grants them exceptional authority and legitimacy to make decisions as they see fit.

2. *Selected by the President*

Beyond formal appointed positions, there are a number of people serving in the executive branch who have been selected by the President without Senate approval or other forms of oversight. Certain presidential appointments no longer require Senate confirmation due to the Presidential Appointment Efficiency and Streamlining Act of 2011.⁵⁹ Among these appointments are the Treasurer of the United States, the Director of the Office of Counternarcotics within the Department of Homeland Security, and the Deputy Administrator of the Federal Aviation Administration.⁶⁰ In addition, the President has the authority to make some appointments within the White House without Senate confirmation.⁶¹

Presidential selection of an individual decision maker to serve as a top policy official is well illustrated by the practice of creating “decision czars” in American governance today.⁶² There have been czars for long-term issues such as climate change, urban affairs, and energy policy, and for immediate crises like Hurricane Katrina or Y2K.⁶³ Some czars are appointed formally through Senate confirmation. Others are not.

The origin of decision czars can be traced to the Jones-Miller Act of 1922, which established the Federal Narcotics Control Board, the first federal bureau tasked with drug control.⁶⁴ Harry Anslinger served as the first Commissioner of its successor, the Federal Bureau of Narcotics, for three decades.⁶⁵ Anslinger’s role mirrors the description of a decision czar because he was personally able to establish the parameters of the war on drugs—at the center of which was adopting a punitive criminal justice approach instead of a preventative public health one. Anslinger worked to moralize narcotics

⁵⁹ Presidential Appointment Efficiency and Streamlining Act of 2011, Pub. L. 112-166, 126 Stat. 1283; see CONG. RESEARCH SERV. RL 30959, *supra* note 45, at 48-49.

⁶⁰ *Id.*

⁶¹ *Id.* at 1 (describing positions that do not require Senate confirmation as the exceptions); *Plum Book*, *supra* note 38, at 10 (listing Presidential Appointment positions without Senate confirmation); see, e.g., *id.* at 2, 5 (listing Brian McKeon, Deputy Assistant to the President for National Security Affairs, Executive Secretary, and NSC Chief of Staff; John O. Brennan, Assistant to the President for Homeland Security and Counterterrorism; Denis R. McDonough, Assistant to the President and Deputy National Security Advisor; Steven Lee VanRoekel, Administrator, Office of E-Government and Information Technology).

⁶² JUSTIN S. VAUGHN & JOSE D. VILLALOBOS, CZARS IN THE WHITE HOUSE: THE RISE OF POLICY CZARS AS PRESIDENTIAL MANAGEMENT TOOLS 9-14 (2015) (noting the lack of an agreed-upon definition and identifying key dimensions that define what a policy czar does).

⁶³ *Id.* at 9-19.

⁶⁴ Narcotic Drugs Import and Export Act, ch. 202, 42 Stat. 596 (1922) (codified as 21 U.S.C. § 172 (1925)); see 5 U.S.C. § 282b (1930) (transferring the powers of the Federal Narcotics Control Board to the Commissioner of Narcotics).

⁶⁵ VAUGHN & VILLALOBOS, *supra* note 62, at 62. Anslinger served from 1930-1962.

and marijuana, in part by promoting the production of Hollywood films depicting drug use as immoral. His ability to heavily shape American drug policy is notable. It was driven by the fact that as first Commissioner he created the office and its agendas, but also by the fact that he had the latitude to do so.⁶⁶

Other czars have enjoyed less success. John A. Love, former Governor of Colorado, was the first energy czar.⁶⁷ In 1973, President Nixon created the Energy Policy Office by executive order and tapped Love to head the office. Love's performance was criticized within and outside of the administration.⁶⁸ He was ultimately usurped by William E. Simon (chair of Oil Policy Committee at the U.S. Department of the Treasury), who Nixon appointed as the first chair of the Federal Energy Office within the Executive Office of the President.⁶⁹

In recent decades, presidential appointment of czars during the aftermath of a crisis has become increasingly commonplace. After Hurricane Katrina, for example, Donald Powell, the chair of the Federal Deposit Insurance Corporation, was tapped by the Bush Administration to be its recovery czar.⁷⁰ Powell's power in this role consisted of his ability to guide federal funds in certain directions. In reality, he became the target of public and government complaints. Ron Klain received praise for his role as the Ebola czar.⁷¹ Richard Holbrooke served as President Obama's Afghanistan czar and Ed Montgomery was named auto communities' recovery czar.⁷²

Decision czars challenge the Appointments Clause paradigm. They may be appointed without Senate confirmation, but commonly exercise power and authority thought to fall outside of the "inferior" category under the Appointments Clause. Those critical of such use of power argue that czars operate outside constitutional authority. Others believe that presidential selection of advisers is within a President's constitutional powers. The central matter for legal interpretation is whether a person is a principal officer or an inferior officer. The test articulated in *Buckley v. Valeo*⁷³ turns

⁶⁶ *Id.* at 62, 64–65; see H.J. ANSLINGER & WILLIAM F. TOMPKINS, THE TRAFFIC IN NARCOTICS vii, 168, 213, 215, 293, 295–97 (1953) (explaining the need to change public perception about drugs and praising the Motion Picture Producers Association of America prohibition on showing drugs in films and reinforcing the need for harsh penalties for violators).

⁶⁷ VAUGHN & VILLALOBOS, *supra* note 62, at 44–45.

⁶⁸ *Id.* at 45–46.

⁶⁹ *Id.* at 47.

⁷⁰ *Id.* at 16–17.

⁷¹ See Press Release, White House, Statement by the President on the Departure of Ron Klain (Feb. 12, 2015), <https://www.whitehouse.gov/the-press-office/2015/02/12/statement-president-departure-ron-klain> [<https://perma.cc/49QF-3ZNE>] (praising Ron Klain for taking on an insurmountable challenge).

⁷² For an unofficial list of czar positions under President Obama, see *President Obama's 'Czars'*, POLITICO (Sept. 4, 2009, 6:19 PM), <http://www.politico.com/story/2009/09/president-obamas-czars-026779> [<https://perma.cc/4P3N-74K8>].

⁷³ *Buckley v. Valeo*, 424 U.S. 1 (1976).

on whether an officer exercises “significant authority.”⁷⁴ In *Morrison v. Olson*,⁷⁵ the Court demarcated the parameters of an inferior officer.⁷⁶ Factors include removability by a higher official in the executive branch who is not the President and limitations on duties, jurisdiction, and tenure.⁷⁷ In *Edmond v. United States*,⁷⁸ inferior officers were further defined to be persons who were supervised by a principal officer.⁷⁹ The Court’s opinion, citing previous cases, identified a district court clerk, an election supervisor, a vice consul serving temporarily as consul, a U.S. commissioner and an independent counsel under the Ethics in Government Act of 1978 as “inferior officers.”⁸⁰

The proliferation of executive-branch decision czars illustrates a central concern this Article exposes. It is not simply the expansion of executive-branch power that troubles people. It is also the reality that one individual can hold such power and can make decisions, rightly or wrongly, without much accountability or oversight. Representative Steve Scalise (La.) expressed this concern well when he called czars “unappointed, unaccountable people who are literally running a shadow government, heading up these little fiefdoms that nobody can really seem to identify where they are or what they’re doing. . . . But we do know that they’re wielding vast amounts of power.”⁸¹ The lack of clear guidance about what a czar is and what a czar may or may not do raises important concerns about the expansion of executive-branch power. Concerns about legality are intertwined with questions about decision-making competence. When decision czars make choices that achieve administration objectives, questions about their constitutional authority are not often raised. But when decision czars wield too much power or make moves deemed dangerous or illegal, questions about constitutionality and their competence as decision makers come to the fore. In either case, “decision” czars have the power to make choices that greatly impact the public. Accordingly, the cognitive competence of those individuals should be carefully considered.

⁷⁴ See *id.* at 125–26 (finding that the Appointments Clause is a matter of “etiquette or protocol” that provides a structural safeguard of separation of powers by preventing congressional encroachment on the Executive or Judicial Branches).

⁷⁵ *Morrison v. Olson*, 487 U.S. 654 (1988).

⁷⁶ *Id.* at 671–72.

⁷⁷ *Id.*

⁷⁸ *Edmond v. United States*, 520 U.S. 651 (1997).

⁷⁹ See *id.* at 658, 662 (finding that only the President, department heads, and courts of law have the power to appoint and that “[g]enerally speaking, the term ‘inferior officer’ connotes a relationship with some higher ranking officer or officers below the President: whether one is an ‘inferior’ officer depends on whether he has a superior.”).

⁸⁰ *Id.* at 661.

⁸¹ Robin Bravender, *House Votes to Overthrow ‘Czars’*, POLITICO (Feb. 17, 2011, 9:13 AM), <http://www.politico.com/story/2011/02/house-votes-to-overthrow-czars-049781> [https://perma.cc/P9KM-AKVB].

B. *Real Decision Moments*

Once appointed or otherwise selected, the law does not govern the particular choices an executive-branch decision maker makes or how she or he makes them. Yet, as the following Section illustrates, an individual's beliefs and biases can impel and even determine decision outcomes that affect the nation and the world. This Section examines three well-known executive-branch decision moments regarding torture, targeted killing, and use of atomic weapons. These examples were chosen because they represent difficult decision moments and the choices taken are widely viewed as controversial. People disagree with them on legal, political, and moral grounds. The purpose of this retelling is not to refute or to advance those views but to illustrate how influential the choices of one person can be in the executive branch. Accordingly, if one person can prompt grave government action, we need to examine how individuals decide in order to better govern. The aim is to highlight what much of the scholarship misses: that the particular individuals authorized under the law to make decisions have shaped the course of American governance in unprecedented ways. Put simply, individual choice in executive-branch decision making matters.

1. *The "Torture Memos"*

Within the executive branch, the Office of the Legal Counsel (OLC) in the Department of Justice has traditionally played an essential decision-making role. The OLC is tasked with reviewing the President's executive orders, providing legal advice on constitutional questions to the executive branch, and serving as counsel to the Attorney General.⁸² In recognition of its principal role, the office is traditionally led by an Assistant Attorney General who is appointed by the President and confirmed by the Senate. By the end of 2001, Jay Bybee was the man serving in this post. His Deputy Assistant Attorney General was John Yoo. They are now infamous for their role and joint responsibility in writing and sending to the White House a series of legal memoranda referred to as the "Torture Memos" that sought to create unprecedented expansion of executive-branch authority under Article II of the Constitution to "conduct" war inside and outside of the United States in the aftermath of 9/11 and in response to the so-called War on Terror.⁸³

⁸² *Office of Legal Counsel*, U.S. DEP'T OF JUSTICE, <https://www.justice.gov/olc> [<https://perma.cc/ZB4L-W2W7>] (last visited Nov. 28, 2016).

⁸³ Bybee, *supra* note 39, at 33–39; Yoo, *supra* note 39, at 14–16, 38–41. For an overview of the thirty-four key documents in the "War on Terror" listed in chronological order from September 11, 2001 through January 15, 2009, see *Read the Key Documents*, NAT'L SEC. ARCHIVE, <http://nsarchive.gwu.edu/torturingdemocracy/documents/> [<https://perma.cc/4XN5-JCRK>] (last visited Nov. 28, 2016).

John Yoo's choices, notwithstanding other individuals who also were involved, have cost the nation in innumerable ways. Senator John McCain, for example, argued that the United States' use of harsh interrogation techniques was "inexcusabl[y] linked" to the use of such methods by the country's enemies.⁸⁴ Certain decisions made in those memos were later repealed by the White House in recognition that the authorization of harsh interrogation practices and redefining torture were inconsistent with existing law and were ineffective in achieving intelligence-gathering objectives.⁸⁵

Why focus on John Yoo? He is but one of many executive-branch decision makers, true. But his story illustrates a central point this Article is exploring—that individual choice, which is impacted by a complex set of cognitive factors, plays a far greater role in shaping executive-branch decisions than many have acknowledged. Much of the subsequent analysis of John Yoo's decisions in the "Torture Memos" looks at how he could have reached the outcomes he did in applying the applicable law to the facts. In his January 9, 2002 memo, Yoo found that protections provided by the Convention Against Torture, and Other Cruel, Inhumane and Degrading Treatment or Punishment did not apply to Al-Qaeda or the Taliban.⁸⁶ Several months later, Yoo's boss, John Bybee, authored a memo justifying the use of certain interrogation methods on the grounds that they were not torture, as they fell short of causing serious physical injury, organ failure, or death.⁸⁷ Article I of the Convention defines the term "torture"⁸⁸ but does not define

⁸⁴ Press Release, Office of John McCain, Levin, McCain Release Executive Summary and Conclusions of Report on Treatment of Detainees in U.S. Custody (Dec. 15, 2008), <http://www.mccain.senate.gov/public/index.cfm/2008/12/post-3b82ef53-0109-44c1-82aa-5b0ca0323d59> [<https://perma.cc/P5R2-V8XE>].

⁸⁵ See Jack L. Goldsmith III, Assistant U.S. Att'y Gen., "Protected Persons" Status in Occupied Iraq under the Fourth Geneva Convention 3, 5 (Mar. 18, 2004), <http://nsarchive.gwu.edu/torturingdemocracy/documents/20040318.pdf> [<https://perma.cc/8YTB-K464>] (declaring that the Geneva Convention protections apply to citizens and permanent residents of Iraq and thus reinstating the Geneva ban on the use of torture); Memorandum for the Files, Steven G. Bradbury, Principal Deputy Assistant U.S. Att'y Gen., October 23, 2001 OLC Opinion Addressing the Domestic Use of Military Force to Combat Terrorist Activities (Oct. 6, 2008), <http://nsarchive.gwu.edu/torturingdemocracy/documents/20081006.pdf> [<https://perma.cc/27GP-AXEX>] (repudiating John Yoo's classified memo finding that the First and Fourth Amendments must give way if the President finds it necessary for defense of the nation); Findings and Conclusions, Senate Committee on Intelligence Report on CIA Detention and Interrogation Practice 2-3 (Apr. 3, 2014), http://fas.org/irp/congress/2014_rpt/ssci-rdi.pdf [<https://perma.cc/A5B7-FETV>] (finding that the CIA's interrogation techniques were ineffective and inaccurate claims about their effectiveness were used to justify the techniques).

⁸⁶ Yoo, *supra* note 39, at 1 ("We conclude that these treaties do not protect members of the Al-Qaeda organization . . . [or] the Taliban organization.").

⁸⁷ Bybee, *supra* note 39, at 1.

⁸⁸ United Nations Convention Against Torture, and Other Cruel, Inhumane and Degrading Treatment or Punishment, art. 1, Apr. 18, 1988, S. TREATY DOC. NO. 100-20, 1465 U.N.T.S. 85, <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CAT.aspx> [<https://perma.cc/LN2Z-WYFS>] ("1. For the purposes of this Convention, the term 'torture' means any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason

the term “severe pain.” Yoo and Bybee’s legal analysis and advice was based on their conclusion that severe pain amounting to torture “must be equivalent in intensity to the pain accompanying serious physical injury, such as organ failure, impairment of bodily function, or even death.”⁸⁹

But scrutinizing Yoo’s legal analysis is only part of the story. Interviewed ten years later, Yoo offers telling reflections on his role as an executive branch decision maker with extreme authority. When asked in 2011 if he believes that waterboarding constitutes torture, Yoo responded “I thought that was the hardest question that we had to face in the government. Personally, I don’t think so.”⁹⁰ These remarks illustrate at least two concerns this Article expresses. First, that monumental government choices can be determined by a few individuals (and sometimes only one). Second, that such individuals make choices, in part, based on their own personal beliefs and biases, even when they are not aware they are doing so. John Yoo admits to both. How did Yoo account for his personal views on torture? We do not know. But we do know that the decision process invoked his personal views in addition to legal reasoning. This is a conspicuous example of how the decisions of one individual can have dramatic effect on the nation and the world. It serves to illustrate this Article’s concern with the lack of legal attention to what constitutes decision-making competence in executive-branch governance.⁹¹ To presume competence based on a person’s legal authority to decide is not good enough.

2. *Drone Strikes on U.S. Citizens Abroad*

The lessons from the John Yoo era led to some structural and procedural reforms within the OLC. Today, its role in national security decision making has been diminished. The Senate has been reluctant to confirm new appointees.⁹² There has also been a resurgence of interagency consultation

based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions. 2. This article is without prejudice to any international instrument or national legislation which does or may contain provisions of wider application.”)

⁸⁹ Bybee, *supra* note 39, at 1.

⁹⁰ Rob Mank, *Ten Years After 9/11, John Yoo Defends His Legacy, Legality of Waterboarding*, CBS NEWS (Sept. 9, 2011 11:26 PM), <http://www.cbsnews.com/news/ten-years-after-9-11-john-yoo-defends-his-legacy-legality-of-waterboarding/> [<https://perma.cc/C2XU-UTA2>].

⁹¹ For an interesting account of the “institutional conditions that made these memos possible,” see ACKERMAN, *supra* note 12, at 6.

⁹² Charlie Savage, *White House Fills Top Post at Justice Department*, N.Y. TIMES (Mar. 25, 2014), http://www.nytimes.com/2014/03/26/us/politics/white-house-fills-office-of-legal-counsel-post.html?_r=0 [<https://perma.cc/M2C4-STLS>]. After John Yoo, Jack Goldsmith was confirmed by the Senate and appointed. Mank, *supra* note 90 (discussing John Yoo’s position as Deputy Assistant Attorney General at the Justice Department between 2001 and 2003); Savage, *supra*. After he left in June 2004, OLC was led by a series of acting assistant attorneys general until the Senate confirmed the appointment of Virginia Seitz on June 28, 2011. Savage, *supra*. She served until December 2013. *Id.* The OLC is currently led by Acting Assistant Attorney General, Curtis E. Gannon. *Meet the Leadership*, U.S. DEP’T OF JUSTICE (last updated Jan. 20, 2017), <https://www.justice.gov/olc/meet-leadership>

via the so-called “Lawyers Group” comprised of the legal teams that advise the Department of Defense, the Central Intelligence Agency, the Director of National Intelligence, the State Department, and several other agencies.⁹³ The general response to the mistake of the Torture Memos has been to decrease decision-making power within the OLC and to increase decision-making oversight across the executive branch.

But to some, these reforms did not do enough to curb executive dominance. The decisions taken by the Department of Justice under the leadership of then-Attorney General Eric H. Holder Jr. that allowed for the operation to target and kill Anwar al-Awlaki in Yemen in September of 2011 have renewed concerns about who can and who should decide such matters. Mr. al-Awlaki was a U.S. citizen killed by a drone attack operated by the CIA on the grounds that he was a suspected terrorist who posed a continuous, imminent threat to the U.S.⁹⁴ A month later, his teenage son and two other U.S. citizens were also killed in a drone strike in Yemen, although the son was not “specifically targeted.”⁹⁵ Because Mr. al-Awlaki was a U.S. citizen, he was entitled to receive due process. In traditional domestic settings, due-process protections include being formally charged with a crime and having a trial by jury.⁹⁶

In this case of first instance, the Justice Department decided that this constitutional protection could be met by having executive-branch officials review the available information and make a determination instead of a trial. In a May 2013 letter to the U.S. Senate Judiciary Committee, Attorney General Holder revealed previously classified information about the matter. His letter stated that targeting a U.S. citizen was permissible if the person posed “an imminent threat of violent attack against the United States” as long as capturing said person was “not feasible.”⁹⁷ The public became aware in 2014 of this secret decision, after the U.S. Court of Appeals for the Second

[<https://perma.cc/3WKL-T5VL>].

⁹³ John Bellinger, *Charlie Savage and the NSC Lawyers Group*, LAWFARE (Nov. 8, 2015, 11:25 AM), <https://www.lawfareblog.com/charlie-savage-and-ns-c-lawyers-group> [<https://perma.cc/HXN2-KMVT>] (describing the existence and practices of the Lawyers Group in 2014–2015).

⁹⁴ Greg Miller, *Legal Memo Backing Drone Strike that Killed American Anwar al-Awlaki is Released*, WASH. POST (June 23, 2014), https://www.washingtonpost.com/world/national-security/legal-memo-backing-drone-strike-is-released/2014/06/23/1f48dd16-faec-11e3-8176-f2c941cf35f1_story.html [<https://perma.cc/9K8V-8NQC>].

⁹⁵ Letter from Eric H. Holder, U.S. Att’y Gen., to the Hon. Patrick Leahy, Chairman of the Committee on the Judiciary, United States Senate (May 22, 2013) [hereinafter Holder Letter] <https://www.justice.gov/slideshow/AG-letter-5-22-13.pdf> [<https://perma.cc/N2ST-79JX>].

⁹⁶ See *Duncan v. Louisiana*, 391 U.S. 145, 149 (1968) (holding that trial by jury is an essential component of justice and a guaranteed right in criminal cases).

⁹⁷ Holder Letter, *supra* note 95 (“Such considerations allow for the use of lethal force in a foreign country against a U.S. citizen who is a senior operational leader of al-Qa’ida or its associated forces, and who is actively engaged in planning to kill Americans, in the following circumstances: (1) the U.S. government has determined, after a thorough and careful review, that the individual poses an imminent threat of violent attack against the United States; (2) capture is not feasible; and (3) the operation would be conducted in a manner consistent with applicable law of war principles.”).

Circuit ordered the Justice Department to release parts of the memo. The revelation renewed concerns about what our government can do to citizens in the name of national security and who gets to make those choices.⁹⁸

With this decision, in contrast to the John Yoo example, the ultimate choice was signed off by a Cabinet-level official selected by the President and appointed by the Senate—Attorney General Holder. Holder commented that the decision was lawful, carefully considered, and “just.”⁹⁹ He argued that “high-level government officials appropriately concluded” that Mr. al-Awlaki posed a continuing and imminent threat and that “senior officials” determined that capture was not feasible.¹⁰⁰ These same “senior officials” also concluded that the operation was consistent with law of war principles and that the “operation was also undertaken consistent with Yemeni sovereignty.”¹⁰¹ But are these the proper criteria for making a decision to take a person’s life based on unproved suspicion? Should this increased authority and purported legitimacy eliminate fears about executive-branch dominance? Is the legal authority to decide a reasonable substitute for competent decision making?

Questioning the cognitive competence of decision makers would require considering additional factors beyond legal authority. These might include whether the deciders slept well the night before or went for a run that morning. Had any of them been to Yemen? What emotional associations were invoked in thinking about a “suspected terrorist”? Did the facts surrounding Mr. al-Awlaki—that he was Muslim, a man, brown-skinned, a cleric—invoke bias in the decision makers’ minds? Considering how decisions are made at the cognitive level would also give rise to thinking critically about how to present information to decision makers. Showing them a chart of information versus photographic evidence would implicate how their brains began to process the decision.¹⁰²

3. *The Target Committee and Hiroshima*

On August 6, 1945, the U.S. dropped the atomic bomb *Little Boy* on Hiroshima and three days later dropped *Fat Man* on the city of Nagasaki.¹⁰³ The decision to do so changed the world forever. Within minutes, thousands were dead and many more would later experience the sickening effects of radiation.¹⁰⁴ Japan surrendered within weeks, bringing an end to the Second

⁹⁸ See *N.Y. Times v. United States*, 756 F.3d 93, 95–96 (2d Cir. 2014) (requiring the Government to publicly file the memos).

⁹⁹ Holder Letter, *supra* note 95.

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² See *infra* Section II for specifics.

¹⁰³ *Hiroshima and Nagasaki*, CHILDREN OF THE ATOMIC BOMB, <http://www.aasc.ucla.edu/cab/200708150001.html> [<https://perma.cc/4442-9SN8>] (last visited Nov. 28, 2016).

¹⁰⁴ *Hiroshima and Nagasaki Death Toll*, CHILDREN OF THE ATOMIC BOMB (Oct. 10, 2007, 7:55

World War.¹⁰⁵

At the time, the public was largely unaware of the existence of the atomic bomb. However, most would assume that deciding to use a weapon of such catastrophic power would be made by the U.S. President, operating as Commander-in-Chief. But, the story of this decision moment is much more complex. The series of choices that led to the bombings were made by a group of scientists and military officials known as the Target Committee, under the President's delegated authority.¹⁰⁶ Of note here is that the criteria for where the U.S. would bomb Japan were set forth by General Leslie Groves—a seemingly appropriate task for a general during wartime.¹⁰⁷ These criteria were then given to the decision-making group, the Target Committee, comprised of top scientists and military personnel.¹⁰⁸ Four cities were shortlisted as targets initially: Kyoto, Hiroshima, Yokohama, and Kokura.¹⁰⁹ Although it technically met the criteria and was an acceptable target, Kyoto was later taken off of the list by Secretary of State Henry Stimson, who had fond memories of his past visit there prompting his desire to save it from atomic devastation.¹¹⁰ Ultimately, it was the Target Committee's choices, deliberations, and silences—not those of President Harry Truman—that resulted in the use of two atomic bombs on two particular Japanese cities on two particular days in 1945.

PM), <http://www.aasc.ucla.edu/cab/200708230009.html> [<https://perma.cc/9PVY-5QLB>] (describing death estimates based on eyewitness reports for Hiroshima to be between 90,000 to 120,000 and between 60,000 to 80,000 for Nagasaki).

¹⁰⁵ See Instrument of Surrender, Japan–U.S., Sept. 2, 1945 (available at <https://catalog.archives.gov/id/1752336>) (expressing Japan's formal surrender to the Allied Powers).

¹⁰⁶ See Minutes of the Second Meeting of the Target Committee Los Alamos, May 10–11, 1945 (July 19, 2015), <http://www.dannen.com/decision/targets.html> [<https://perma.cc/NT6U-XSRH>] (detailing the meeting of the Target Committee to discuss bombing strategies); see also PAUL HAM, HIROSHIMA NAGASAKI: THE REAL STORY OF THE ATOMIC BOMBINGS AND THEIR AFTERMATH 147–53 (2014) (detailing how the Target Committee was responsible for determining which locations in Japan the U.S. should use its new atomic weapons on). The Committee consisted of thirteen people, largely scientists and military officials, who met several times during the summer of 1945 to decide the particulars of where to drop the atomic bomb and why. HAM, *supra* at 147–62. Influenced by Committee members Oppenheimer, Compton, Lawrence and Fermi, President Truman adopted the unanimous advice of the Committee to use the bomb on the two cities the Committee had identified. *Id.* at 162. On July 25, 1945, General Leslie Groves of the Committee delivered a finalized list of targets in a directive to General Carl Spaatz in charge of the U.S. Strategic Air Force in the Pacific. *Id.* at 281. On August 6, the directive was carried out. *Id.* at 294–300.

¹⁰⁷ See Paul Ham, *The Bureaucrats Who Singled Out Hiroshima for Destruction*, ATLANTIC (Aug. 6, 2015), <http://www.theatlantic.com/international/archive/2015/08/hiroshima-nagasaki-atomic-bomb-anniversary/400448/> (“The target should: possess sentimental value to the Japanese so its destruction would ‘adversely affect’ the will of the people to continue the war; have some military significance—munitions factories, troop concentrations, and so on; be mostly intact, to demonstrate the awesome destructive power of an atomic bomb; and be big enough for a weapon of the atomic bomb’s magnitude.”).

¹⁰⁸ *Id.*

¹⁰⁹ HAM, *supra* note 106, at 148.

¹¹⁰ *Id.* at 162 (“At this point, Stimson revived his personal mission to save Kyoto.”) Ham, *supra* note 107 (Stimson argued that Kyoto ‘must not be bombed. It lies in the form of a cup and thus would be exceptionally vulnerable. . . . It is exclusively a place of homes and art and shrines.’”).

The first two examples of decision moments illustrate how individual choice greatly influenced government decision moments taken in the pursuit of national security that expanded the legality of executive-branch authority. This third example calls into question the wisdom of the President to delegate certain choices to those under his command even when he has the purported authority to do so. When the choice was made to use atomic weapons during World War II, the decision-making process reveals that people other than the President made judgments that determined the ultimate outcome.¹¹¹

C. *Determining Who Should Decide*

The purpose of the examples, history, and legal analysis presented here is to raise the following questions: What should qualify an individual for a top decision-making role in the executive branch? Are there metrics for measuring who will be a good decision-maker? At present, law does not have the answers. This Article has described the constitutionally derived legal guidance for creating executive-branch officials and granting them with the power and legitimacy to make critical decisions on behalf of our nation. Once appointed, selected, or otherwise chosen, those that serve are presumed competent to do so. But there is very little inquiry into what qualifications make someone ideal or even eligible for the role.

Consider the prominent post of the National Security Advisor (NSA). This person is appointed by the President but is not subject to Senate confirmation despite the fact that, in practice, the position involves making significant decisions often attributed to a principal-officer role. The National Security Council was created under the National Security Act of 1947, which stipulated the creation of an executive secretary in charge of the staff to advise the President on domestic, foreign, and military policy concerning matters of national security.¹¹² Below is a list of the twenty-three NSAs since 1947 (noting military service and Ivy League education).¹¹³

¹¹¹ See Petition from Leo Szilard and Other Scientists to President Harry S. Truman, (July 17, 1945), <https://research.archives.gov/id/6250638> [<https://perma.cc/W8AJ-CR8B>] (requesting that the decision on whether to use the atomic bombs be decided in light of input from scientists working in the field of atomic power).

¹¹² National Security Act of 1947, 50 U.S.C. § 402(a), (c) (2012).

¹¹³ Names and dates of service in office are sourced from *List of National Security Advisors of the United States*, ENCYCLOPEDIA BRITANNICA, <http://www.britannica.com/topic/list-of-national-security-advisers-of-the-United-States-1788874> [<https://perma.cc/B3KN-E2RE>] (last updated Oct. 7, 2014), along with the biographical data for NSA's Bundy, Rostow, Kissinger, Powell, Rice, Jones, and Rice. The remaining biographical data is sourced from the *History of the National Security Council 1947-1997*, THE WHITE HOUSE: PRESIDENT GEORGE W. BUSH, <https://georgewbush-whitehouse.archives.gov/nsc/history.html> [<https://perma.cc/PV2K-BTD2>] (last visited Dec. 1, 2016); John P. Burke, *The National Security Advisor and Staff: Transition Challenges*, in THE WHITE HOUSE TRANSITION PROJECT REPORTS 2009-02 (2008); and from biographies from various online sources, e.g., *Appointment of John M. Poindexter as Assistant to the President for National Security Affairs*, REGAN

NATIONAL SECURITY ADVISERS	
1	Robert Cutler (March 23, 1953–April 2, 1955)*^
2	Dillon Anderson (April 2, 1955–September 1, 1956)*^
3	Robert Cutler (January 7, 1957–June 24, 1958)*^
4	Gordon Gray (June 24, 1958–January 13, 1961)*^
5	McGeorge Bundy (January 20, 1961–February 28, 1966)*^
6	Walt W. Rostow (April 1, 1966–January 20, 1969)*^
7	Henry A. Kissinger (January 20, 1969–November 3, 1975)*^
8	Brent Scowcroft (November 3, 1975–January 20, 1977)*^
9	Zbigniew Brzezinski (January 20, 1977–January 21, 1981)*
10	Richard V. Allen (January 21, 1981–January 4, 1982)
11	William P. Clark (January 4, 1982–October 17, 1983)*^
12	Robert C. McFarlane (October 17, 1983–December 4, 1985)^
13	John M. Poindexter (December 4, 1985–November 25, 1986)^
14	Frank C. Carlucci (December 2, 1986–November 23, 1987)*
15	Colin L. Powell (November 23, 1987–January 20, 1989)^
16	Brent Scowcroft (January 20, 1989–January 20, 1993)^
17	W. Anthony Lake (January 20, 1993–March 14, 1997)*
18	Samuel R. Berger (March 14, 1997–January 20, 2001)*
19	Condoleezza Rice (January 22, 2001–January 25, 2005)*
20	Stephen Hadley (January 26, 2005–January 20, 2009)*
21	James L. Jones (January 20, 2009–October 8, 2010)*^
22	Thomas E. Donilon (October 8, 2010–July 1, 2013)
23	Susan Rice (July 1, 2013–January 19, 2017)*
24	Michael T. Flynn (January 20, 2017–present)^

This data could suggest that people identified as competent to serve the President in the role of NSA descriptively share certain educational and experiential qualities that make them qualified for the role. All but seven NSAs apparently attended an Ivy League school such as Harvard, Yale, or Princeton.¹¹⁴ Most have military experience.¹¹⁵ All but three NSAs have been white men. Colin Powell, an African-American man, and Condoleezza Rice and Susan Rice, both African-American women, are the sole exceptions.

But a closer look at the data reveals another story. Many of the NSAs enjoyed close professional and even personal relationships with the

LIBRARY ARCHIVES, <https://reaganlibrary.archives.gov/archives/speeches/1985/120485e.htm> [<https://perma.cc/E58K-9PZU>] (last visited Jan. 16, 2017) (biography of NSA President John M. Poindexter). The symbol * indicates a bachelor's and/or graduate degree from an Ivy League school or Oxford and Cambridge. The symbol ^ indicates some form of military service including enrollment at a military college or university.

¹¹⁴ National Security Advisers table, *infra*.

¹¹⁵ *Id.*

President they served prior to his election.¹¹⁶ In other instances, NSAs knew key officials, such as the Secretary of Defense, who recommended them for the post. Networks, such as the Bilderberg Group, play a significant role in establishing such connections.¹¹⁷ This suggests that appointment to a senior executive-branch post is often based on criteria beyond education and experience.

Furthermore, there is no comprehensive data on what cognitive competencies these individuals should have to excel in their jobs. Knowledge about such is purely anecdotal. NSA Jones famously criticized his successor saying that Donilon displayed “too little feel for the people who work day and night. . . .”¹¹⁸ Are such criteria important for the job? Although many who have worked in the White House would say yes, comprehensive analysis of this question is lacking.¹¹⁹

Similar questions surround the presumption of competence afforded to various czars. Why, for example, was Angslinger hired? What made him the person selected for the job? Aptly put by Senator Joe Lieberman during a congressional hearing on czardom, “[w]ho is deserving in this instance of the title of ‘czar?’”¹²⁰ Perhaps, Ken Feinberg’s unique expertise justified the choice to appoint him as the “Pay Czar.” Maybe Cass Sunstein’s demonstrated intellect as a Harvard Law professor and noted author provided strong reason to make him the “Regulatory Czar.” But the reality is that we do not really know and the law does not ask. By studying what decision-making competence looks like in our brains, we can better determine who is best qualified to decide in our government.

¹¹⁶ NSA William Clark, for example, was a friend of Ronald Reagan’s. See EDMUND MORRIS, DUTCH: A MEMOIR OF RONALD REAGAN 455, 663 (1999).

¹¹⁷ NSA Thomas Donilon was a former Steering Committee Member of the Bilderberg Group. See *Former Steering Committee Members*, BILDERBERG MEETINGS, <http://bilderbergmeetings.org/former-steering-committee-members.html> [https://perma.cc/Y33A-GE6L] (last visited Nov. 22, 2016) (listing Tom Donilon as member of Bilderberg Group); see also *About Bilderberg Meetings*, BILDERBERG MEETINGS, <http://bilderbergmeetings.org/index> [https://perma.cc/8LPA-AZZH] (last visited Nov. 22, 2016) (stating that the Bilderberg Group aims to foster discussion among world and industry leaders in a private setting).

¹¹⁸ BOB WOODWARD, OBAMA’S WARS 200 (2010); Marcus Baram, *Tom Donilon Would Be a ‘Disaster’ as National Security Adviser, Robert Gates Reportedly Said*, HUFFINGTON POST (Oct. 8, 2010, 11:22 AM), http://www.huffingtonpost.com/2010/10/08/tom-donilon-disaster-national-security-advisor_n_755708.html [https://perma.cc/D3RV-RBG4].

¹¹⁹ In the interest of full disclosure, this author has worked in the White House at the Office of the United States Trade Representative, at the U.S. State Department, and at the U.S. Environmental Protection Agency in various civil service positions as one of those people who work day and night.

¹²⁰ *Presidential Advice and Senate Consent: The Past, Present, and Future of Policy Czars: Hearing Before the S. Comm. on Homeland Sec. & Gov’t Affairs*, 111th Cong. 1 (2009) (opening statement of Sen. Joseph Lieberman) (available at <https://www.gpo.gov/fdsys/pkg/CHRG-111shrg53850/html/CHRG-111shrg53850.htm> [https://perma.cc/2W8N-JWUC]).

II. HOW BRAINS DECIDE

Neuroscience is leading the way in evidence-based understandings about our brains and decision making.¹²¹ The prevailing view is that a person's mind and a person's brain are functionally the same.¹²² Thus, decisions are made in our brain, not by a separate mind.¹²³ Neurolaw is the title given to emerging legal scholarship that aims to apply neuroscientific insights to questions of legal importance.¹²⁴ Much of the work in this area concerns criminal law.¹²⁵ Neuroscience informs legal questions about criminal culpability and intentionality, for example, by revealing the degree of choice or free will a person executes over her or his intentional acts. Other scholars have applied neuroscience to questions regarding tort, dispute

¹²¹ Public interest and professional engagement in neuroscience is growing. See EBEN ALEXANDER, *PROOF OF HEAVEN: A NEUROSURGEON'S JOURNEY INTO THE AFTERLIFE* 8 (2012) (stating how neuroscience helps to learn more about the modern brain as well as helping heal people); NORMAN DOIDGE, *THE BRAIN THAT CHANGES ITSELF* vxi (2007) (discussing how the neuroplastic revolution has implications on different aspects of human life); MICHIO KAKU, *THE FUTURE OF THE MIND* 4 (2014) (noting the movement to understand how the human brain functions). For work at the intersection of neuroscience and business, see generally SRINIVASAN PILLAY, *YOUR BRAIN AND BUSINESS: THE NEUROSCIENCE OF GREAT LEADERS* 3 (2011) (stating that neuroscience is improving performance in the business environment); TARA SWART ET AL., *NEUROSCIENCE FOR LEADERSHIP: HARNESSING THE BRAIN GAIN ADVANTAGE* 2 (2015) (describing how the brain and decision-making processes work together); MATTHEW WILCOX, *THE BUSINESS OF CHOICE: MARKETING TO CONSUMERS' INSTINCTS* 11–12 (2015) (detailing the three trends of decision science which resulted in an “explosion of learning from behavioral and social sciences”); Joseph Folkman, *Are Different Skills Required for Senior Executives?*, *FORBES* (Aug. 22, 2014, 8:46 AM), <http://www.forbes.com/sites/joefolkman/2014/08/22/are-different-skills-required-for-senior-executives/#100ed4207690> (observing the difference in strategies and skills between lower level managers and senior executives).

¹²² PARDO & PATTERSON, *supra* note 28, at 20 (arguing against this dominant view stating that such thinking is prone to a “mereological fallacy” where one conflates empirical data with conceptual data). The authors believe that scholars should question evidence that equates neural capacities within the brain with human capacities and argue that the two are not the same. *Id.*

¹²³ Patricia Smith Churchland, *Moral Decision-Making and the Brain*, in *NEUROETHICS: DEFINING THE ISSUES IN THEORY, PRACTICE, AND POLICY* 4–5 (Judy Illes ed., 2006).

¹²⁴ See Oliver R. Goodenough, *Mapping Cortical Areas Associated with Legal Reasoning and Moral Intuition*, 41 *JURIMETRICS* 429, 431 (2001) (arguing for re-conceptualizing law in response to neuroscience and was awarded the Jurimetrics Research Award).

¹²⁵ For legal scholarship discussing the intersection of criminal law and neuroscience see THE MACARTHUR FOUNDATION RESEARCH NETWORK ON LAW AND NEUROSCIENCE, VANDERBILT UNIV., <http://www.lawneuro.org> [<https://perma.cc/9R48-XC52>] (providing a forum for scholarship investigating the intersection of neuroscience and criminal law); Amanda C. Pustitnik, *Pain as Fact and Heuristic: How Pain Neuroimaging Illuminates Moral Dimensions of Law*, 97 *CORNELL L. REV.* 801, 804 (2012) (suggesting that neuroimaging will assist in achieving reliable quantification in cases); Terry A. Maroney, *Adolescence Brain Science After Graham v. Florida*, 86 *NOTRE DAME L. REV.* 765, 766 (2011) (arguing the influence of neuroscience in a Supreme Court decision); Teneille Brown & Emily Murphy, *Through a Scanner Darkly: Functional Neuroimaging as Evidence of a Criminal Defendant's Past Mental States*, 62 *STAN. L. REV.* 1119, 1129 (2010) (addressing the use of neuroimaging to support mens rea claims); Steven K. Erickson, *Blaming the Brain*, 11 *MINN. J. L. SCI. TECH.* 27, 28–29 (2010) (describing the shift towards biological sciences in issues of criminal responsibility); Owen D. Jones et al., *Brain Imaging for Legal Thinkers: A Guide for the Perplexed*, 5 *STAN. TECH. L. REV.* 5, 5–6 (2009) (discussing the various uses of brain images in legal proceedings); and O. Carter Snead, *Neuroimaging and the “Complexity” of Capital Punishment*, 82 *N.Y.U. L. REV.* 1265, 1269 (2007) (noting that cognitive neuroscientists seek to invoke brain imaging research on the neurobiological roots of criminal violence).

resolution, and philosophy.¹²⁶ This Section provides a novel look at how neuroscientific evidence on decision making might apply to individuals making choices on our nation's behalf.

A. Preliminaries and Conditions

Neuroscience is the study of neurons, their functions and their organization in the brain.¹²⁷ Neuroanatomy maps what regions of the brain exist.¹²⁸ We know, for example, that the frontal lobe is located behind our foreheads, the occipital lobe is behind the nape of our necks, and that there are regions of the brain that remain undiscovered.¹²⁹ Advances in neuroimaging allow us to observe anatomical connectivity (e.g., how different regions of the brain connect) and functional connectivity (e.g., how different cognitive processes interact), which permits the study of how structure and function are connected.¹³⁰ Researchers use various tools to study brain activity and function, from the older electroencephalography (EEG), which measures electrical activity, to newer methods such as transcranial magnetic stimulation (TMS) for testing changes in brain activity.

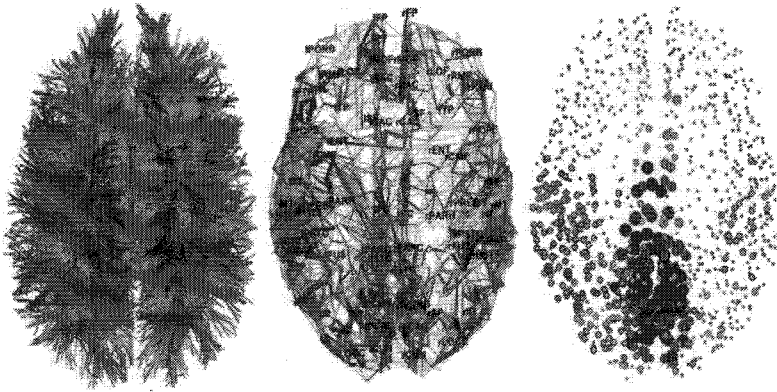
¹²⁶ For legal scholarship discussing neuroscience in philosophy, dispute resolution, tort and other areas, see Michael S. Pardo & Dennis Patterson, *Philosophical Foundations of Law and Neuroscience*, 2010 U. ILL. L. REV. 1211, 1213 (2010) (noting the issues of neurosciences' implications for the law); Elizabeth E. Bader, *The Psychology and Neurobiology of Mediation*, 17 CARDOZO J. CONFLICT RESOL. 363, 364 (2016) (exploring the connection "between psychological and neurobiological dimensions" in mediation); Robert J. Condlin, *The "Nature" of Legal Dispute Bargaining*, 17 CARDOZO J. CONFLICT RESOL. 393, 394–95 (2016) (noting the social phenomenon of legal dispute bargaining); Richard Birke, *Neuroscience and Settlement: An Examination of Scientific Innovations and Practical Applications*, 25 OHIO ST. J. DISPUTE RES. 477, 478 (2011) (discussing the effect of neuroscience in negotiations and mediations); Jay Sterling Silver, *Intent Reconceived*, 101 IOWA L. REV. 371, 379 (2015) (describing the effect of intent in tort cases); Jean Macchiaroli Eggen & Eric J. Laury, *Toward a Neuroscience Model of Tort Law: How Functional Neuroimaging Will Transform Tort Doctrine*, 13 COLUM. SCI. & TECH L. REV. 235, 237 (2012) (arguing that "tort law is likely to be the first areas of law impacted by the neuroscience revolution"); Joshua D. Greene, *Beyond Point-and-Shoot Morality: Why Cognitive (Neuro)Science Matters for Ethics*, 124 ETHICS 695, 696 (2015) (describing the implications cognitive science can have on ethics); Adam J. Kolber, *Will There Be a Neurolaw Revolution?*, 89 IND. L. J. 807, 808 (2014) (stating that there will be a neurolaw revolution due to new brain technologies); and Oliver R. Goodenough & Michaela Tucker, *Law and Cognitive Neuroscience*, 6 ANN. REV. L. & SOC. SCI. 61, 63 (2010) (discussing the usefulness of intersections between law and neuroscience).

¹²⁷ Christian Nordqvist, *What Is Neuroscience?*, MED. NEWS TODAY, <http://www.medicalnewstoday.com/articles/248680.php> [<https://perma.cc/2HXV-X7S3>] (last updated Sept. 26, 2014) (defining neuroscience).

¹²⁸ See SCALABLE BRAIN ATLAS, <https://scalablebrainatlas.incf.org/main/index.php> [<https://perma.cc/JME5-GFRA>] (displaying neuroanatomical maps through a "fully web-based display engine").

¹²⁹ *The Brain and Its Functions*, NEUROLOGYCHANNEL, <http://thebrainlabs.com/brain.shtml> [<https://perma.cc/Q3KD-VXH3>] (last visited Dec. 3, 2016).

¹³⁰ See Maria de la Iglesia-Vaya et al., *Brain Connections – Resting State fMRI Functional Connectivity*, in NOVEL FRONTIERS OF ADVANCED NEUROIMAGING 51, 52–54 (Kostas N. Fountas ed., 2013), <http://www.intechopen.com/books/novel-frontiers-of-advanced-neuroimaging/brain-connections-resting-state-fmri-functional-connectivity> [<https://perma.cc/TP7B-FWEZ>] (describing the ways in which "exploring the neuroanatomy of the brain and the underlying connectivity of different functional areas [allow us to attain] new insights on the organization of the human brain.").



131

Today, many researchers rely on functional Magnetic Resonance Imaging (fMRI) brain scans to test and study cognitive processes and behavior, such as how moving your finger to scroll through an app on your iPhone activates certain parts of your brain.¹³² Studies utilizing fMRI provide evidence showing that anatomically distinct regions of the brain do more work during different types of reasoning.¹³³ For example, neural components accompany common decision-making biases such as framing effects.¹³⁴ The field of such research highlights the complexity of our brains while also discrediting commonly held but erroneous ideas, such as the “left brain” or “right brain” idea.¹³⁵

Such complexities make applying neuroscience data to legal questions and writing about them in a compelling way risky. Lawyers like detail and precision. Legal scholarship likes to announce clear, bold claims and contributions. Research in neuroscience is different.¹³⁶ It is cautious and

¹³¹ *Id.* at 54 fig.1 (“Diffusion Tensor Tractography (left), graph of connectivity (center), functional connectivity (right)). This figure is modified from Patric Hamann et al., *Mapping the Structural Core of Human Cerebral Cortex*, PLOS BIOLOGY (July 1, 2008), <http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.0060159> [https://perma.cc/B85D-ZBKV].

¹³² See MICHAEL S. GAZZANIGA ET AL., COGNITIVE NEUROSCIENCE 110, 152–58 (3d ed. 2011). (discussing how fMRI works, comparing it to PET scans, and discussing the reasons behind its popularity as a mechanism for scientists).

¹³³ See Vinod Goel et al., *Disassociation of Mechanisms Underlying Syllogistic Reasoning*, 12 NEUROIMAGE 504, 512–13 (2000) (using an event-related fMRI study of syllogistic reasoning using sentences with and without semantic content and finding that the left-temporal system was recruited during content-based reasoning, but when performing the same reasoning task without semantic content, the parietal system was recruited).

¹³⁴ Joshua A. Weller et al., *Neural Correlates of Adaptive Decision Making for Risky Gains and Losses*, 18 PSYCHOL. SCI. 958, 958–64 (2007).

¹³⁵ Interview with R. McKell Carston, *supra* note 30 (“There is no evidence of a strong bilateral bias in brain functioning. Language may prove an exception as it is left lateralized with subtle bias effects. Social processing occurs more frequently on the right side of the brain but the left side is still engaged, albeit minimally.”).

¹³⁶ See, e.g., Oshin Vartanian & David R. Mandel, *Introduction*, in THE NEUROSCIENCE OF DECISION MAKING 1, 3 (Oshin Vartanian & David R. Mandel eds., 2011) (“We endeavor to show that

findings are specific to the particulars of the study. Because of this, legal scholars must be careful not to over-claim. Responsible use of the data requires seeking multiple verifications that confirm a central insight. This is the approach applied here.

B. *The Neuroscience of Decision Making*

The field of neuroscience today is excited by evolving research about how biological data informs knowledge of cognitive functions implicated in decision making.¹³⁷ In this context, decision making is understood to be the cognitive mechanisms that work to help a person select good from bad options.¹³⁸ Certain topics are considered to be theoretically relevant to decision making and enjoy a significant body of knowledge in neuroscience.¹³⁹ These include trust, cooperation, uncertainty, reward, and loss.¹⁴⁰ Scientists have found that certain hormones stimulate certain functions. Oxytocin, for example, increases a person's sense of trust due to this neural connection.¹⁴¹ This can result in a person having a strong affiliation with their group, leading to altruism toward those within it and, notably, an increased harm for out-group members.¹⁴² Cognitive functioning in decision making has been tested through a variety of means including "behavioral experiments, brain imaging, neuropsychology, electrophysiology, computational modeling, and investigations of neurotransmitter systems."¹⁴³ Through these varied methodologies, scientists can measure neural networks and systems in addition to neural functions.¹⁴⁴ Through these studies, the following central insights emerge.

current behavioral and neural evidence supports the assertion that the field has entered a stage in which context-dependence of choice must be seen as central to decision theory and as something that cannot be ignored without incurring a severe loss of explanatory completeness.”).

¹³⁷ *Id.* at 1.

¹³⁸ Antoine Bechara, *Human Emotions in Decision Making: Are They Useful or Disruptive?*, in *THE NEUROSCIENCE OF DECISION MAKING*, *supra* note 136, at 73, 74, 76 (“This mechanism for selecting good from bad options is referred to as decision making, and the physiological changes occurring in association with the behavior selection constitute part of *somatic states* (or somatic signals).”).

¹³⁹ Vartanian & Mandel, *supra* note 136, at 2.

¹⁴⁰ *See, e.g.*, Michael Kosfeld et al., *Oxytocin Increases Trust in Humans*, *NATURE*, June 2, 2005, at 673, 673–75.

¹⁴¹ *Id.*

¹⁴² *See* Interview with R. McKell Carston, *supra* note 30 (“[T]he exact mechanism of action on a broad functional level is not known.”).

¹⁴³ Vartanian & Mandel, *supra* note 136, at 2.

¹⁴⁴ John P. O’Doherty & Peter Bossaerts, *Toward a Mechanistic Understanding of Human Decision Making: Contributions of Functional Neuroimaging*, 17 *CURRENT DIRECTIONS PSYCHOL. SCI.*, 119, 119–23 (2008); Brian Knutson et al., *Distributed Neural Representation of Expected Value*, 25 *J. NEUROSCIENCE* 4806, 4806 (2005).

1. *Multiple Systems of Thought*

The idea that human thought is complex and invokes multiple systems in our brain has been popularized by author and psychologist Daniel Kahneman who describes two systems of human thought.¹⁴⁵ System 1 operates quickly and automatically to make intuitive choices.¹⁴⁶ System 2, useful for focusing on complex choices, is slower, analytical and driven by reason.¹⁴⁷ Kahneman's explanation of human thought reflects modern understandings in psychology about human behavior.

In recent years, neuroscientists have added to these understandings in important ways. They are able to monitor which parts of the brain become active during different types of activity and thought. This type of data, often drawn from fMRI studies, updates the theory. There is no unitary process in the brain for making decisions.¹⁴⁸ Instead, when our brains engage in decision making, they invoke multiple systems often in sequence or at the same time to engage in judgment and choice. Cognitive functions that develop decisions occur at the same time as those that inform emotions and interactions between the two influence the choices one makes.¹⁴⁹ The existence of multiple systems of thought in the brain defies traditional logic that we can make decisions using only logic and reason. These findings demonstrate the complexity of cognitive processes involved in decision making.

2. *The Role of Thought in Cognition*

Decision making often occurs with the explicit aim of achieving a pre-set goal. When faced with making an important decision, we try to focus on the objective and stay on task. From a neuroscience perspective, this activity is called goal-directed thought.¹⁵⁰ When we engage in it we are utilizing our pre-frontal cortex, which optimizes its ability to focus attention on relevant stimuli, and this is a process called cognitive control.¹⁵¹ In a crude sense,

¹⁴⁵ DANIEL KAHNEMAN, THINKING, FAST AND SLOW 21-23 (2011).

¹⁴⁶ *Id.* at 20-21.

¹⁴⁷ *Id.* at 20-21; see also Amos Tversky & Daniel Kahneman, *Judgments of and by Representativeness*, in JUDGEMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES (Daniel Kahneman et al. eds., 1982), at 85-98; Daniel Kahneman, *A Perspective on Judgment and Choice: Mapping Bounded Rationality*, 58 AM. PSYCHOL. 697, 698-99 (2003) ("The operations of System 1 are typically fast, automatic, effortless, associative, implicit The operations of System 2 are slower, serial, effortful, more likely to be consciously monitored and deliberately controlled").

¹⁴⁸ Vartanian & Mandel, *supra* note 136, at 2.

¹⁴⁹ See, e.g., Antoine Bechara et al., *Different Contributions of the Human Amygdala and Ventromedial Prefrontal Cortex to Decision-Making*, 19 J. NEUROSCI. 5473, 5473 (1999) (discussing how the ventromedial prefrontal cortex and the amygdala affect different processes).

¹⁵⁰ Kalina Christoff et al., *The Role of Spontaneous Thought in Human Cognition*, in THE NEUROSCIENCE OF DECISION MAKING, *supra* note 136, at 261. This Section takes its title from Christoff's work.

¹⁵¹ *Id.* at 261-63.

focusing on making a decision helps our brains reduce the influence of distracting stimuli.

However, as is true with most findings in neuroscience, the story about thought and the brain is more complex. Who hasn't had their mind wander during a meeting, no matter its importance? Understanding why this happens requires inquiring about what happens inside the brain. Known as spontaneous thought, our brains tend to prefer the "default network"¹⁵² when we are not engaging in attention-demanding activities. Many of us experience this network as our thoughts drift right before we fall asleep at night. One possible benefit of such de-focused thought is its potential for maximizing memory consolidation due to the brain's increased capacity to access long-term memories during spontaneous thought.¹⁵³

A third category, creative thought, is believed to activate processes in the prefrontal cortex, the "default network," and memory networks.¹⁵⁴ Studies about creative thought work to identify how to improve creative problem-solving capacity. For example, in a 2005 study, people solved anagrams more quickly when they were lying down than when they were standing.¹⁵⁵ In another study from 2002, people who were awoken from REM sleep were better able to solve anagrams than those awoken from non-REM sleep.¹⁵⁶ As such studies evolve, so do the applicable findings. However, there is enough evidence to suggest that creative problem-solving and goal-directed decision making recruit different brain processes and regions.¹⁵⁷ Asking people to do both at the same time may not be recommended. Furthermore, the prescription for optimal decision making just might mean more naps and more daydreaming. Recognizing the various types of thought from a neurological perspective allows for a deeper appreciation of how memory, emotion, motivation, and other factors work in complex and diverse ways to influence decision making.

¹⁵² *Id.* at 263 (attributing the findings of the brain's "default network" to Marcus E. Raichle et al., *A Default Mode of Brain Function*, 98 PROC. NAT'L ACAD. SCI. U.S. 676 (2001)).

¹⁵³ *Id.* at 264 ("These findings suggest that long-term memory processes contribute strongly to the phenomenon of spontaneous thought . . . memory consolidation may be one of the main functions of spontaneous thought.").

¹⁵⁴ *Id.* ("Divergent thinking tasks produce decreased beat range synchrony and increased alpha range synchrony over the frontal cortex providing evidence for loosened cognitive control and lower prefrontal cortical arousal during creative thought.").

¹⁵⁵ *Id.* at 264–65 (attributing the study by D.M. Lipnicki & D.G. Byrne, *Thinking on Your Back: Solving Anagrams Faster When Supine Than When Standing*, 24 COGNITIVE BRAIN RES. 719 (2005)).

¹⁵⁶ *Id.* at 265 (attributing the study of REM sleep versus non-REM sleep to M. P. Walker et al., *Cognitive Flexibility Across the Sleep-Wake Cycle: REM-sleep Enhancement of Anagram Problem Solving*, 14 COGNITIVE BRAIN RES. 317 (2002)).

¹⁵⁷ *Id.*

3. *Empathy and Mirror Neurons*

Empathy is a cognitive skill essential for pro-social behavior.¹⁵⁸ However, as a term, empathy describes many responses, not just one. It identifies related but distinct phenomena of cognitive capacities and behavior that occur when a person responds with “sensitive care” to another’s suffering.¹⁵⁹ Varied responses that demonstrate this capacity include coming to know what someone else is feeling internally, feeling what he or she feels, and/or matching another’s neural responses.¹⁶⁰ Evolutionary biologists have shown that this cognitive capacity developed in our species over millions of years.¹⁶¹ In the field of neuroscience, empathy research has only taken off with significance in the last decade. However, this research is shedding new light on old ideas by showing, for example, that there seems to be a distinction between empathy and personal distress at the neurological level.¹⁶² In other words, our brains process pain we see another experiencing quite differently from pain we undergo ourselves. An important recent study has shown that empathy is not an automatic or inherent reaction but a cognitive skill that requires deliberation.¹⁶³ One potential implication of this is that empathy may be something that must be taught because it is skill acquired by learning.

Research on empathy attempts to understand why, as a matter of cognitive functioning, the observations and indications found in behavioral studies might be occurring. As previously described, the brain has many pathways for processing choices, risk, judgment, and decisions. So the question from a neuroscience perspective is what cognitive processes are activated when a person experiences empathy.

Advances in brain mapping have led to the ability to map the “physiological correlates of the process of empathy, describe its neuronal

¹⁵⁸ C. Daniel Batson, *These Things Called Empathy: Eight Related but Distinct Phenomena*, in JEAN DECETY & WILLIAM ICKES, *THE SOCIAL NEUROSCIENCE OF EMPATHY* 3, 4-11 (2009) (discussing how to define empathy and identifying “eight distinct phenomena that have been called empathy.”).

¹⁵⁹ In other words, there is no single controlling definition of empathy from a neuroscientific perspective. See *id.* at 3–15 (describing eight concepts for understanding the phenomenon of one person’s caring response to another’s suffering).

¹⁶⁰ *Id.* at 3–5.

¹⁶¹ See Frans de Waal, *The Evolution of Empathy*, UNIV. OF CAL. BERKELEY (Sept. 1, 2005), http://greatergood.berkeley.edu/article/item/the_evolution_of_empathy [<https://perma.cc/HY22-8G3E>] (reporting that empathy was critical to survival as a species and summarizing studies performed on animals and other mammals).

¹⁶² *THE SOCIAL NEUROSCIENCE OF EMPATHY*, *supra* note 158, at viii.

¹⁶³ Anjali Krishnan et al., *Somatic and Vicarious Pain are Represented by Dissociable Multivariate Brain Patterns*, 5 *ELIFE* 1, 3 (2016), <http://elifesciences.org/content/5/e15166-download.pdf> [<https://perma.cc/JQ6S-ZCJU>]; see *Empathy for Others’ Pain Rooted in Cognition Rather Than Sensation, CU-Boulder Study Finds*, UNIV. OF COLO. BOULDER (June 14, 2016), <http://www.colorado.edu/today/2016/06/14/empathy-others-pain-rooted-cognition-rather-sensation-cu-boulder-study-finds> [<https://perma.cc/4STX-HD39>] (“The research suggests that empathy is a deliberative process that requires taking another person’s perspective rather than being an instinctive, automatic process.”).

architecture[,] and specify empathy circuits in the brain.”¹⁶⁴ One of the conclusions of this research has centered on the function and importance of mirror neurons. The Mirror Neuron System (“MNS”) was first theorized in 1996 by studying the neural activity in the brains of macaque monkeys.¹⁶⁵ Canonical neurons link one’s perception with action.¹⁶⁶ Mirror neurons activate when you watch another person engage in an act.¹⁶⁷ It is thought these two neural circuits account (at least in part) for the cognitive capacity for empathy.¹⁶⁸

Studying these brain functions has also led to widespread recognition in social psychology, sociology, neuroscience, and other fields of the phenomenon of emotional contagion, where people literally catch each other’s feelings.¹⁶⁹ This is true for touch, sound, and emotion.¹⁷⁰ The centers of neural activity linked to empathy include the right inferior parietal lobe (found to process our capacity to identify with others) and the anterior cingulate cortex, insula, thalamus, and somatosensory cortices (which process emotion).¹⁷¹ When your mirror neurons fire, your brain activates different areas depending on whether you take a first-person or a third-person perspective.¹⁷² Marco Iacoboni, a professor of psychiatry at UCLA, has pioneered work on mirror neurons that indicates that identity factors such as age and race can change how neurons function.¹⁷³

How does empathy, as variously defined, play a role in decision making? Although the question is straightforward, the answer is not. Psychologists have sought to understand the link through behavioral studies. One study showed that parents who more frequently reported feeling distress in response to a crying infant as opposed to feeling sympathy or compassion

¹⁶⁴ Jeanna C. Watson & Leslie S. Greenberg, *Empathetic Resonance: A Neuroscience Perspective*, in THE SOCIAL NEUROSCIENCE OF EMPATHY, *supra* note 158, at 126; see also Katherine P. Rankin et al., *Structural Anatomy of Empathy in Neurodegenerative Disease*, 129 BRAIN 2945, 2945–47 (2006) (summarizing research study to determine the degree to which regional differences in the brain volumes correspond to real-life empathic behavior).

¹⁶⁵ Watson & Greenberg, *supra* note 164, at 187 (citations omitted). The existence of the MNS in humans is debatable and has not been confirmed at this time.

¹⁶⁶ PERSPECTIVES ON IMITATION: FROM NEUROSCIENCE TO SOCIAL SCIENCE 3 (Susan Hurley & Nick Chater eds., 2005).

¹⁶⁷ David Dobbs, *How Babies Know What You’re Up to (or Not)*, SCI. AM. (Nov. 26, 2007), <https://blogs.scientificamerican.com/news-blog/how-babies-know-what-youre-up-to-or/> [<https://perma.cc/4RCV-NNPE>].

¹⁶⁸ Marco Iacoboni, *Understanding Others: Imitation, Language and Empathy*, in PERSPECTIVES ON IMITATION: FROM NEUROSCIENCE TO SOCIAL SCIENCE, *supra* note 166, at 77–101.

¹⁶⁹ For a survey of this research, see ELAINE HATFIELD ET AL., EMOTIONAL CONTAGION 1–7 (1994) (discussing emotional contagion and its effects on social and developmental psychology).

¹⁷⁰ Watson & Greenberg, *supra* note 164, at 126.

¹⁷¹ Argye E. Hillis, *Inability to Empathize: Brain Lesions That Disrupt Sharing and Understanding Another’s Emotions*, 137 BRAIN 981, 983–84, 986 (2014).

¹⁷² Watson & Greenberg, *supra* note 164, at 127.

¹⁷³ Elizabeth A. Reynolds Losin et al., *Race Modulates Neural Activity During Imitation*, 59 NEUROIMAGE 3594, 3594–95 (2012).

had a high risk of abusing a child.¹⁷⁴ Another study found that husbands who were violent to their wives had a significantly lower capacity for what is called “empathy accuracy,” or, the ability read other people’s feelings and thoughts accurately.¹⁷⁵ A third study on emotional contagion indicated that what you feel is influenced by nonverbal cues of those around you, whereas what you think others are feeling is heavily influenced by what they have said.¹⁷⁶

The state of the existing research on empathy and contagion shows that being aware of what someone thinks and what they feel provides two essential but distinct means for gaining information about the expressive behaviors of people around us.¹⁷⁷ Studies are tracking two separate but connected processes for how the brain processes empathy. The first experience, sharing, occurs when you experience another’s pain experience, which may produce an array of emotional responses ranging from empathy to disengagement.¹⁷⁸ The second, mentalizing, occurs when, after reflecting upon another’s pain experience, one chooses an empathetic response.¹⁷⁹ The cognition of empathy may be best understood as a system of flexible conceptual representations that translate thought into feelings.¹⁸⁰ There is also neurological evidence that individuals differ in their capacity for empathy.¹⁸¹

Although the study of empathy remains ongoing, two early implications emerge. First, empathy involves cognitive processes and brain structures that are also invoked during different kinds of decision making.¹⁸² Thus, to believe that empathy is irrelevant to decision making is erroneous and

¹⁷⁴ Joel S. Milner et al., *Empathic Responsiveness and Affective Reactivity to Infant Stimuli in High- and Low-Risk for Physical Child Abuse Mothers*, 19 *CHILD ABUSE & NEGLECT* 767, 767–68, 776 (1995).

¹⁷⁵ Kahni Clements et al., *Empathic Accuracy of Intimate Partners in Violent Versus Nonviolent Relationships*, 14 *PERS. RELATIONSHIPS* 369, 370–71 (2007).

¹⁷⁶ Christopher K. Hsee et al., *Assessments of the Emotional States of Others: Conscious Judgments Versus Emotional Contagion*, 11 *J. SOC. & CLINICAL PSYCHOL.*, 119–21 (1992).

¹⁷⁷ See Ullrich Wagner et al., *The Relationship Between Trait Empathy and Memory Formation for Social vs. Non-Social Information*, 7 *BMC PSYCHOL.* 1, 1 (2015) (clarifying the distinction between cognitive empathy where one mentally represents another’s thoughts, and affective empathy where one aligns with another’s emotional state).

¹⁷⁸ See, e.g., Paula M. Neidenthal, *Embodying Emotion*, 316 *SCI.* 1102, 1104 (2007) (explaining a study that examined the brain activity of a participant watching another participant experience pain in an attempt to prove that an individual can feel another’s emotions).

¹⁷⁹ Jamil Zaki et al., *The Neural Bases of Empathic Accuracy*, 106 *PNAS* 11382, 11384 (2009).

¹⁸⁰ Wagner et al., *supra* note 177, at 1; see also Clifford B. Saper, *The Central Autonomic Nervous System: Conscious Visceral Perception and Autonomic Pattern Generation*, 25 *ANN. REV. OF NEUROSCIENCE* 433, 453–61 (2002) (describing patterns of autonomic responses in the central nervous system); Kevin A. Keay & Richard Bandler, *Parallel Circuits Mediating Distinct Emotional Coping Reactions to Different Types of Stress*, 25 *NEUROSCIENCE & BIOBEHAVIORAL REVIEWS* 669, 669 (2001) (establishing that emotional coping strategies to different types of stress arise through distinct, longitudinal neuronal columns of the midbrain periaqueductal gray (PAG) region).

¹⁸¹ Watson & Greenberg, *supra* note 164, at 126.

¹⁸² Samuel M. McClure et al., *Conflict Monitoring Cognition-Emotion Competition*, in *HANDBOOK OF EMOTION REGULATION* 204, 205 (James J. Gross ed., 2007).

problematic. Second, empathy is learned, not innate.¹⁸³ As such, decision makers and institutions ought to consider how it can be best developed. We should value the importance of how empathy is developed as a cognitive skill and how its involvement in brain functions is invoked during decision making. Learning how to empathize can be done through visualization techniques used to help a person actively imagine another's experience or by mimicking the facial expressions of another. Decentering is another technique that can increase one's capacity for becoming aware of what another is experiencing.

4. *Emotion*

I saved a complex and, for purposes of this Article, highly relevant aspect of cognition for last. Emotion plays an incredibly important role in decision making.¹⁸⁴ To discount it as either normatively undesirable or descriptively irrelevant is not only erroneous but dangerous. However, writing about what neuroscientific evidence says about the role emotion plays in decision making is tricky; neuroscientists have numerous ongoing debates about emotion and few agreements. A second clarification is that analysis of emotion in cognitive functioning involves analysis of the topics previously described. That said, let us begin.

It was long thought by neuroscientists and psychologists that emotion could be described categorically.¹⁸⁵ Today you feel happy. Tomorrow you may feel sad. But neuroscientists have begun to think about emotion differently.¹⁸⁶ Instead of categories, the prevailing approach describes emotion as high or low arousal, which correlates with a negative or positive valance. These approaches seek to inform a query—what does it mean for one person to consider the emotional state of another person?

The study of emotion is central to this Article's exploration of understanding decision making through a cognitive perspective.¹⁸⁷ Studies about the neurobiology of emotion are complex and have lagged behind other studies of mind and brain. But there is data to support the following claims that "decision making is a process critically dependent on neural systems important for the processing of emotions[,] conscious knowledge alone is not sufficient for making advantageous decisions[,] and . . . emotion is not always beneficial to decision making[;] [s]ometimes it can be

¹⁸³ See Wagner et al., *supra* note 177, at 7 (refuting earlier studies arguing empathy is innate); see, e.g., Jean Decety & Philip L. Jackson, *The Functional Architecture of Human Empathy*, 3 BEHAV. & COGNITIVE NEUROSCIENCE REVIEWS 71, 73–75 (2004) (proposing empathy as an "innate ability to recognize that the self and the other can be the same").

¹⁸⁴ See McClure et al., *supra* note 182, at 222 (concluding that there are at least three types of decision making where emotions discernibly influence behavior).

¹⁸⁵ See HATFIELD ET AL., *supra* note 169, at 3 (proposing that emotions may be categorized such as in a hierarchy).

¹⁸⁶ Interview with R. McKell Carston, *supra* note 30.

¹⁸⁷ Bechara, *supra* note 138, at 73–74.

disruptive.”¹⁸⁸ How, then, does emotion influence our decision making? This Article does not endeavor to answer such a complex question. Rather, it aims to illuminate the central insight that emotion is connected to decision making in important ways worthy of further analysis.

Appropriate decision making, in the cognitive sense, involves a dynamic interplay between intellect and emotion. Studies show how disruption to one capacity negatively affects the other. The *somatic marker hypothesis*, for example, provides neurobiological support for the notion that people make judgments by evaluating consequences and the probability of them occurring, and sometimes, at a gut or emotional level.¹⁸⁹ Emotion intersects with memory, judgment, and other cognitive functions in ways that are beneficial and detrimental to decision making.

The foundational study underpinning this hypothesis found that patients with normal intellect who suffered from trauma to their frontal lobes demonstrate abnormalities in emotion and feeling as well as in decision making.¹⁹⁰ Patients often decided against their self-interests and were unable to learn from previous mistakes.¹⁹¹ The study concluded that such patients had mostly intact neuropsychological tests but were compromised in their abilities regarding expression of emotion and feeling.¹⁹² Without functioning emotional signals, a person had to rely on cost-benefit analysis for determining conflicting choices, which takes the brain more time to do.¹⁹³

So what evidence exists to support a claim that emotions *guide* decisions? A first set of studies supports the notion that decision-making impairments are linked to a failure in a person’s somatic (emotional) signaling.¹⁹⁴ A subsequent group of studies support the notion that decision making is guided by emotional signals (gut signals) that are generated in anticipation of future events. An additional study found that emotional

¹⁸⁸ *Id.* at 74.

¹⁸⁹ Antonio R. Damasio, *The Somatic Marker Hypothesis and the Possible Functions of the Prefrontal Cortex*, 351 *PHIL. TRANSACTIONS: BIOLOGICAL SCI.* 1413, 1413 (1996); George Loewenstein & Jennifer S. Lerner, *The Role of Affect in Decision Making*, *HANDBOOK AFFECTIVE SCI.* 619, 619–20 (2003); Norbert Schwartz & Gerald L. Clore, *Mood, Misattribution, and Judgments of Well-Being: Informative and Directive Functions of Affective States*, 45 *J. PERSONALITY & SOC. PSYCHOL.* 513, 513 (1983); R.B. Zajonc, *On the Primacy of Affect*, 39 *AM. PSYCHOLOGIST* 117, 122 (1984).

¹⁹⁰ Bechara, *supra* note 138, at 75–77. This led to Damasio’s 1994 somatic marker hypothesis, which posits that “the neural basis of the decision-making impairment characteristics of patients with VM prefrontal lobe damage is defective activation of somatic states (emotional signals) that attach value to given options and scenarios.” *Id.* at 77.

¹⁹¹ GARY G. BERNTSON & JOHN T. CACIOPPO, *HANDBOOK OF NEUROSCIENCE FOR THE BEHAVIORAL SCIENCES* 751 (2009) (“The choices they make are no longer advantageous—the patients often decide against their best interests—and are remarkably different from the kinds of choices they were known to make in the pre-morbid period. They are unable to learn from previous mistakes . . .”).

¹⁹² Bechara, *supra* note 138, at 75 (“As noted, the patients have normal intellect, as measured by a variety of conventional neuropsychological tests . . .”).

¹⁹³ Vartanian & Mandel, *supra* note 136, at 76 (“Deprived of these emotional signals, patients must rely on a slow cost-benefit analysis of various conflicting options.”).

¹⁹⁴ *Id.* at 77–80 (describing a series of studies investigating links between emotion and decision making. The first study was conducted by Bechara, Tranel, and Damasio in 1996).

signals need not be perceived consciously for them to impact decision making.¹⁹⁵ These and other studies provide strong support for the concept that activation of parts of the brain that process emotion—such as the amygdala and the Ventro-medial prefrontal cortex—help people make more rational decisions.¹⁹⁶ Just as addicts or psychopaths are aware of the consequences of their actions but go ahead with their choices, disassociation at the neurological level can lead to the same result.

Fear is a strong emotion that has been shown to play an important role in cognition and decision making.¹⁹⁷ Imagine that you are afraid of snakes. When you encounter a real snake, your brain processes this as a primary inducer in the amygdala. But if you worried about encountering a snake or see an image of a snake in a movie, this is processed as a secondary inducer in your Ventral Medial Pre-frontal (VM) cortex.¹⁹⁸ The VM cortex works to couple knowledge about what something will feel like with real experiences.¹⁹⁹ In contrast, the amygdala triggers emotions from the actual cause of a fear inducer,²⁰⁰ such as seeing something that appears to be a snake moving through tall grass. The amygdala works to connect aspects of a representation or an object with one's emotions about its presence.²⁰¹ If someone's amygdala is not functioning properly, the connection between associations of loss and choice development becomes disrupted.²⁰² As a result, a person may fail to avoid behaviors that lead to repeat negative emotions, such as losing money at a casino.²⁰³ The core insight is this: if a person has an underlying neurobiological abnormality, they are likely to have behaviors that demonstrate repeated and persistent failure to learn from previous mistakes.²⁰⁴ This is not a person who should be in charge of making decisions that affect our nation.

¹⁹⁵ *Id.* (referencing a second study conducted by Bechara, Damasio, Tranel, and Damasio in 1997).

¹⁹⁶ *Id.* at 86 (“[T]he results provide strong support for the notion that decisionmaking is guided by emotional signaling (or somatic states) generated in anticipation of future events. Without the ability to generate these emotional/somatic signals, the patients fail to avoid the [choices] that lead to painful losses.”).

¹⁹⁷ Bechara, *supra* note 138, at 73–95.

¹⁹⁸ *See id.* at 87–89 (explaining that the VM cortex “couples knowledge to representations of ‘what it feels like’ to be in certain situations”).

¹⁹⁹ *See id.* at 88 (explaining how the VM prefrontal cortex couples information to emotional representations, with one function serving as a “trigger structure for somatic/emotional states from secondary inducers”).

²⁰⁰ *See id.* at 85 (“The function of the amygdala is to couple the features of the object with its emotional attribute. For example, a snake is simply an object with certain features. However, this object is linked to some emotional attribute such as fear . . .”).

²⁰¹ *See id.* at 86 (explaining that the amygdala embraces the “fight or flight” response).

²⁰² *See id.* (explaining that when the amygdala is damaged, the patient can no longer signal pain).

²⁰³ *See id.* (“[B]oth emotional parts of the brain, the amygdala and the VM cortex, help people make rational decisions.”).

²⁰⁴ *See id.* at 91 (explaining the effects that neurobiological disabilities have on one's ability to learn from mistakes).

Neuroscience proves that our brains engage in a complex interplay of functions when we make a choice or a decision and that emotion is a component of this. Yet people often want to know if emotions are “bad” for decision making. There is no single answer to that question. Context matters. The brain often experiences conflict between activating its emotion-processing networks and activating its reasoning-processing networks.²⁰⁵ This helps to explain why people who experience high emotion—anger or joy—make different choices than they would otherwise make. But the oft-repeated notion that wise decisions are made with cool (unemotional) heads is inaccurate.

The *somatic marker hypothesis* also holds that certain emotion is integral to a particular decision making task.²⁰⁶ Emotion that is related to what you are deciding can benefit your decision-making cognition.²⁰⁷ Emotion that is unrelated can become a distraction.²⁰⁸ A hypothetical that illustrates this has you driving a car on the highway. Imagine you have to decide whether or not to speed on the highway to make it to your final exam and the “thought” of being late or getting in an accident will evoke an emotional response (likely fear) that is related to your decision making. However, learning that your loved one died while driving may be disruptive. This distinction does not always hold. Sometimes integrally related emotions can be disruptive too.²⁰⁹

One implication from emotion research that is critical to this Article is that any attempt to influence decision and choice must account for the role that emotion plays in cognition. Assuming emotion away is an error that ignores the evidence. Second, judgments about morality or fairness implicate the role of emotion in ways that other sorts of decisions do not. This suggests that awareness of cognitive functioning in these situations bears great importance.

III. BARRIERS TO CHANGE

Just like the rest of us, those chosen to make important decisions in the executive branch are subject to the brain behaviors described above. Yet, as Section I questioned, we have a thin framework for analyzing who is most qualified to decide. As Section II explored, decision making involves many cognitive processes that deal with information and emotion. Decision makers are influenced not only by the task before them but also by a host of internal factors that involve their perceptions and biases. But such

²⁰⁵ *Id.*

²⁰⁶ *Id.* at 76.

²⁰⁷ *Id.* at 76–77.

²⁰⁸ *Id.*

²⁰⁹ There are many studies exploring the relationship between emotion and decision making. See, e.g., Baba Shiv et al., *The Dark Side of Emotion in Decision-Making: When Individuals with Decreased Emotional Reactions Make More Advantageous Decisions*, 23 COGNITIVE BRAIN RESEARCH 85 (2005).

neuroscientific understandings of decision making have not yet been adopted as factors in determining who gets to decide. In other words, Presidents and their chiefs of staff have no requirement that a person they seek to appoint or select into a high rank executive-branch position must be cognitively competent to serve in the role. This section investigates potential reasons for this. It considers three institutional cultural norms that have been historically prominent as metrics of competence: rationality, meritocracy, and exceptionalism. These ideals have shaped legal thinking in ways that persist and, as I further argue, are inconsistent with neuroscientific evidence about how our brains decide.

A. *The Seduction of Rationality in the American Legal Tradition*

Law is enamored of rationality.²¹⁰ The competent decision maker has long been thought to be a rational one. Law students may first encounter this concept in their torts class when they read about Justice Learned Hand's famous "reasonable person."²¹¹ The reasonable person is a legal fiction, one that adopts a certain view of rationality in human decision making. It is an anthropomorphic representation of the duty of care applied by courts in tort and contract and perpetuated through case law. One influence of this view was to disdain behavior that was viewed to be emotional because the law is equivocally "uncomfortable with feelings."²¹² Those engaged in its practice, from judges to lawyers, are taught to do so by suppressing intense emotion under the long-standing rationale that it clouds reason and good judgment.

This influence on American legal thought is derived from the European legal traditions the American legal system was founded upon.²¹³ Three schools of thought dominated the early formations of American law: naturalism, positivism, and historicism. Naturalism, a legal philosophy rooted in natural law, understands law in relation to immutable moral principles and inherent rights.²¹⁴ Positivism made a definitive move to

²¹⁰ Richard A. Posner, *Emotion Versus Emotionalism in Law*, in *THE PASSIONS OF LAW* 309–10 (Susan A. Bandes ed., 1999) (confirming this traditional view that "[t]he law itself is conventionally regarded as a bastion of 'reason' conceived of as the antithesis of emotion, as operating to rein in the emotionality of the behavior that gives rise to legal disputes" and countering that the dichotomy is misleading based on the cognitive theory of emotion).

²¹¹ See *The T.J. Hooper*, 60 F.2d 737, 738, 739–40 (2d Cir. 1932); see also *United States v. Carroll Towing Co.*, 159 F.2d 169, 173 (2d Cir. 1947) (applying a normative test that adheres to a commitment to cost efficiency); Alan D. Miller & Ronen Perry, *The Reasonable Person*, 87 N.Y.U. L. REV. 323, 323 (2012) (arguing that "[o]nly normative definitions are logically acceptable."). But see *Osborne v. Montgomery*, 234 N.W. 372, 375 (Wis. 1931) (applying a standard of reasonableness in a tort case based on what "the great mass of mankind" would do in a similar circumstance).

²¹² Samuel H. Pillsbury, *Harlan, Holmes and the Passions of Justice*, in *THE PASSIONS OF LAW*, *supra* note 210, at 330.

²¹³ JAMES E. HERGET, *AMERICAN JURISPRUDENCE 1870–1970*, at 8 (1990) ("American legal theory started as an European transplant . . .").

²¹⁴ RICHARD A. COSGROVE, *SCHOLARS OF THE LAW: ENGLISH JURISPRUDENCE FROM BLACKSTONE TO HART* 30 (1996) (quoting William Blackstone: "'This law of nature, being coeval with mankind and

distance law from morality. Proponents of this expository paradigm (Henry Terry, Wesley Hohfeld, Hans Kelsen, and H.L.A. Hart) advocated various means of isolating law from morality in order to sterilize judicial and other forms of legal decision making.²¹⁵ Historicism understood law through its evolution in society and its institutions.²¹⁶ Drawing upon these earlier European traditions, American law developed from the late nineteenth century through the beginning of the Second World War with the pursuit of establishing law as “academically worthy.”²¹⁷ As such, emotion was not to be involved in thinking about law.

English philosopher John Locke’s views help explain why. He espoused that humans are endowed by God with a “faculty of reason.”²¹⁸ In Locke’s view, people are both aware of their self-interests and are motivated by such in decision making. This foundational concept prevailed in economic rational-choice theory that, in turn, influenced theories about government decision making.²¹⁹ Max Weber declared that the modern state is the “rational state” based on “rational law.”²²⁰ Work by international relations scholars like Thomas Schelling, among others, solidified this view in understanding international strategy.²²¹ The classic example is the Prisoner’s Dilemma in game theory, which provides a paradigm for predicting the future behavior of two actors based on self-interest, cooperation, and failure to cooperate.²²² This framework assumes that humans operate as rational actors motivated by reason and self-interest. Certain international law scholars use this frame to reject ideas that nations obey international law for any other reason than their own national interests.²²³ The rational-actor view

dictated by God himself, is of course superior in obligation to any other. It is binding all over the globe, in all countries, and at all times: no human laws are of any validity, if contrary to this . . .”).

²¹⁵ HERGET, *supra* note 213, at 3–4.

²¹⁶ *Id.* at 22–23 (including the works of Scottish theorists David Hume, Adam Smith, John Millar, and Bernard Mandeville, German scholars Gustav Hug and Friedrich Carl von Savigny, and English theorists Herbert Spence and Henry Maine).

²¹⁷ *Id.* at 1–2. Dean of Harvard Law School Christopher Columbus Langdell reformed the study of law by turning it into a field of scientific inquiry and endowing the study of law in American law schools with the case method that prevails today. *Id.* at 34.

²¹⁸ JOHN LOCKE, SECOND TREATISE OF GOVERNMENT 10 (C.B. Macpherson ed., 1980).

²¹⁹ See GRAHAM ALLISON, ESSENCE OF DECISION: EXPLAINING THE CUBAN MISSILE CRISIS 28–29 (1971) (identifying the “anthropomorphic fallacy” in policy analysis that assumes the government produces decisions as a unitary, rational thinker).

²²⁰ MAX WEBER, WIRTSCHAFTSGESCHICHTE 289–90 (1923).

²²¹ See THOMAS C. SCHELLING, THE STRATEGY OF CONFLICT 3–5 (1980) (discussing how the theory of strategy assumes rationality when analyzing government actions); Kenneth W. Abbott, *Modern International Relations Theory: A Prospectus for International Lawyers*, 14 YALE J. INT’L L. 335, 405–06 (1989) (applying the rational choice theory to deductively explain state action in international relations).

²²² WILLIAM POUNDSTONE, THE PRISONER’S DILEMMA 8–9 (1992) (explaining generally the Prisoner’s Dilemma).

²²³ See JACK L. GOLDSMITH & ERIC A. POSNER, THE LIMITS OF INTERNATIONAL LAW 185 (2005) (arguing that nations should follow international law regardless of their interest in doing so); JOEL P. TRACHTMAN, THE ECONOMIC STRUCTURE OF INTERNATIONAL LAW 128 (2008) (acknowledging that a

of the world has had significant and long-standing influence over law, economics, international relations, and other fields.

The problem with the views of rationality that law has adopted is that they are inaccurate.²²⁴ Research from evolutionary biology, behavioral economics, and social psychology demonstrates that people make choices that counter their rational self-interests²²⁵ and problematic behaviors can be predicted.²²⁶ We humans are not the rational actors we were previously thought to be.

Take the problem of positive illusions in behavioral psychology, which shows that people are primed to be systematically biased in positive ways.²²⁷ We use more positive words than negative in our daily vocabulary.²²⁸ We recall positive memories more readily than negative ones.²²⁹ We tend to be overly optimistic about the future.²³⁰ We also are more likely to evaluate ourselves more positively than others,²³¹ and we tend to presume that when we love something (like a movie or a song) that others will too. Another well-established bias occurs as overconfidence, or overestimating one's knowledge.²³² If you see a relationship between two things that does not really exist, you are making an illusory correlation.²³³ Status quo bias shows that we tend to prefer an option framed as the status quo.²³⁴ There is also a set of biases that relate to information. Anchoring, for example, shows up as the tendency to rely too heavily on the first information presented when making a decision.

rational state would abandon a treaty if its benefit from doing so was greater than its benefit from adherence).

²²⁴ Herek et al., *supra* note 22, at 204 (explaining why rational choice theory is descriptively and normatively inadequate for improving the quality of decisions); see Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, in *JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES*, *supra* note 147, at 3 (explaining that the processes that individuals use to make decisions can sometimes lead to "severe and systematic errors").

²²⁵ See Cass R. Sunstein & Richard H. Thaler, *Libertarian Paternalism Is Not an Oxymoron*, 70 U. CHI. L. REV. 1159, 1167–70 (2003) (providing evidence that humans will commonly make decisions contrary to their own interests).

²²⁶ OREN BAR-GILL, *SEDUCTION BY CONTRACT: LAW, ECONOMICS, AND PSYCHOLOGY IN CONSUMER MARKETS 2* (2012); see also GEORGE A. AKERLOF & ROBERT J. SHILLER, *PHISHING FOR PHOOLS: THE ECONOMICS OF MANIPULATION AND DECEPTION 6–7* (2015) (explaining how marketers use well known psychological principles to encourage customers to make purchases contrary to their best interests).

²²⁷ JOHNSON, *supra* note 25, at 6 (describing adaptive overconfidence as a "widespread human trait.").

²²⁸ *Id.*

²²⁹ *Id.*

²³⁰ *Id.*

²³¹ *Id.*

²³² See *id.* at 6 (providing positive and negative examples of overconfidence).

²³³ *Illusory Correlation*, BLACKWELL ENCYCLOPEDIA SOC. PSYCHOLOGY, http://www.blackwellreference.com/public/tocnode?id=g9780631202899_chunk_g978063120289911_ss1-3#citation (last visited Dec. 3, 2016).

²³⁴ Rob Henderson, *How Powerful Is Status Quo Bias*, PSYCHOLOGY TODAY (Sept. 29, 2016), <https://www.psychologytoday.com/blog/after-service/201609/how-powerful-is-status-quo-bias> [<https://perma.cc/2L2Y-8234>].

Another set of deviations from rationality are heuristics, which are cognitive strategies or mental shortcuts we use in the face of complex or incomplete information to make decision making easier.²³⁵ Stereotyping, for example, is an adaptive trait we have evolved to process information quickly even though our determinations based on stereotypes are often inaccurate and deeply flawed. Herbert Simon introduced the term “satisficing” to describe the ways our minds process judgments that are “good enough.”²³⁶ His insight was that although rational people intend to be rational, we often lack the information necessary to make a rationally optimal choice.²³⁷

Both cognitive biases and heuristics can contribute to judgment errors and other decision-making pathologies. People may also choose to avoid making any decision in uncertain circumstances.²³⁸ For some legal scholars, these insights led to prescriptions about how to improve individual decision making and normative arguments about whether law ought to do so. Cass Sunstein and Richard Thaler’s work on choice architecture, aimed at altering one’s external decision environment to encourage or “nudge” a person toward better choices, is a central example of this.²³⁹

Just as individuals make poor choices, so do groups. However, understanding how and why proves to be complex. Political scientists, international relations scholars, and psychologists have long considered multiple theories to explain and to address the phenomena of poor choices. In Irving Janis’ oft-cited book *Groupthink*, he uses cognitive psychology to explain how the process of foreign-policy decision making can be deeply flawed, leading to equally flawed outcomes.²⁴⁰ Such decision errors can lead to irrational behavior.²⁴¹ One example is the Hobbesian Trap, which provides theoretical explanation for why President John F. Kennedy and Soviet Chairman Nikita Khrushchev both chose to escalate toward preemptive nuclear strikes to eliminate the threat they thought the other posed during the Cuban Missile Crisis.²⁴² The theory is that the human

²³⁵ Kahneman, *supra* note 145, at 79–88 (describing heuristics as a “machine for jumping to conclusions” that lead to overconfidence, framing effects, base-rate neglect and other cognitive biases).

²³⁶ HERBERT SIMON, MODELS OF MAN: SOCIAL AND RATIONAL 204–05 (1957); *see also* Shelley E. Taylor, *The Availability Bias in Social Perception and Interaction*, in JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES, *supra* note 147, at 190–91 (explaining the meaning of “satisfice”).

²³⁷ *See* SIMON, *supra* note 236, at 256 (explaining the difference in rational decision-making ability between the “economic man” and a “choosing individual of limited knowledge and ability”).

²³⁸ *See, e.g.*, Rosalind Dixon & Tom Ginsburg, *Deciding Not to Decide: Deferral in Constitutional Design*, 9 INT’L J. CONST. L. 636, 639 (2011) (“When the stakes are high, there is naturally some reluctance to making the wrong decision too early; when stakes are low but the probability of error is high, deferral also makes sense as a strategy.”).

²³⁹ THALER & SUNSTEIN, *supra* note 24, at 8.

²⁴⁰ JANIS, *supra* note 25, at 13 (explaining how poor decision-making processes can lead to “groupthink” and result in irrational decisions).

²⁴¹ *Id.*

²⁴² *See* Sandeep Baliga & Tomas Sjöström, *The Hobbesian Trap*, in THE OXFORD HANDBOOK OF THE ECONOMICS OF PEACE AND CONFLICT 93–96, 106–07 (Michelle R. Garfinkel & Stergios Skaperdas eds., 2012) (describing the Hobbesian Trap as caused by a “fear spiral” that will promote the inclination

response to fear, not rational-based thought, drove the impulse to strike preemptively.²⁴³

In the group context, decision errors such as these occur for various psychological reasons and due to failures in process where no one questions underlying assumptions or offers dissent.²⁴⁴ The group takes on a life bigger than that of any one of the individuals and group cohesion becomes valued more than accurate information or quality of analysis.²⁴⁵ Ultimately, the group feels good about its decision even when cognitive biases are clearly present (and often *because* cognitive biases are present).²⁴⁶ Rationality, as such, has little to do with it.

B. *The Illusion of Meritocracy*

Meritocracy is a system of governance where those who are “talented” (variously defined) are chosen to advance based on achievement.²⁴⁷ This cultural belief has roots in our nation’s immigrant past. Many who came to America in the eighteenth century and beyond were enamored of a country where merit might permit them to get ahead, a feat largely impossible in the rigid aristocratic societies in Europe they were escaping.²⁴⁸ A country founded on merit held a promise that people could succeed not on their family name, but on their personal abilities and efforts. There was a cultural shift from a world based on aristocracy to one based on meritocracy, which valued hard work over birthright.

This early foundational principle found its way into government policy and practice over time. The prevailing “spoils system” was abandoned after the assassination of President James A. Garfield.²⁴⁹ In 1871, with the creation of the U.S. Civil Service Commission, and in 1883, with the passing

for a decision maker to engage in “hawkish” behavior such as preemptive strikes without a “dominant strategy dove” to offset the behavior.

²⁴³ *Id.* at 106. (“Since actions are strategic complements, a contagion of fear causes even peaceful types to behave aggressively.”).

²⁴⁴ See MARK SCHAFFER & SCOTT CRICHLAW, *GROUPTHINK VS. HIGH QUALITY DECISION MAKING IN INTERNATIONAL RELATIONS* 5–6 (2010) (summarizing Irvin Janis’ research regarding the reasons for failure in foreign-policy decision making).

²⁴⁵ *Id.* at 6.

²⁴⁶ *Id.* at 6.

²⁴⁷ *Meritocracy*, MERRIAM-WEBSTER, <http://merriam-webster.com/dictionary/meritocracy> [<https://perma.cc/26Z3-U5BV>] (last visited Dec. 3, 2016); see also Lani Guinier, *The Tyranny of Meritocracy*, *CHRON. OF HIGHER EDUC.* (Jan. 5, 2015), <http://chronicle.com/article/The-Tyranny-of-Meritocracy/150983/> [<https://perma.cc/K7CP-BYAQ>] (last visited Dec. 3, 2016) (attributing the term to British sociologist Michael Dunlap Young who coined the term in his 1958 satire *The Rise of Meritocracy*).

²⁴⁸ For a description of the concept of merit in early America see JOSEPH F. KETT, *MERIT: THE HISTORY OF A FOUNDING IDEAL FROM THE AMERICAN REVOLUTION TO THE TWENTY-FIRST CENTURY* 4 (2012) (“In America, then, merit became the property not of revolutionary outsiders but of revolutionary *insiders*.”).

²⁴⁹ *Pendleton Civil Service Act*, ENCYCLOPÆDIA BRITANNICA, <https://www.britannica.com/topic/Pendleton-Civil-Service-Act> [<https://perma.cc/AT2P-KPF5>] (last visited Dec. 3, 2016).

of the Pendleton Civil Service Reform Act, the executive branch adopted new hiring practices based on the idea of merit.²⁵⁰

Faith in meritocracy prevails in America. Federal Reserve Chairman Ben Bernanke describes meritocracy as a “bedrock American principle . . . the idea that all individuals should have the opportunity to succeed on the basis of their own effort, skill, and ingenuity.”²⁵¹ In a Pew Poll, 69% of Americans agreed that “people are rewarded for intelligence and skill.”²⁵² Most Americans believe this notion to be true for themselves.²⁵³ So it is natural for us to apply the same belief to those in government.

However, meritocracy is a cautious friend.²⁵⁴ What constitutes merit in one person’s view differs greatly from another’s on the basis of cognitive bias, as discussed in Section II. But what constitutes merit for a particular government post? Absent a well-developed standard of what merit means for a specific position in our government, this subjectivity allows the President to appoint whom he likes and justify such decisions with the sanction of approval that derives from the premise of merit. Meritocracy also prevents diversity for reasons that cognitive studies reveal.²⁵⁵ Like attracts like. People tend to hire those they find to be like themselves. Stereotypes inform estimations of competency. Gone awry, meritocracy becomes a cover

²⁵⁰ *Id.*

²⁵¹ Ben S. Bernanke, Chairman, Fed. Reserve, Before the Greater Omaha Chamber of Commerce, Omaha, Nebraska: The Level and Distribution of Economic Well-Being (Feb. 6, 2007), <http://www.federalreserve.gov/newsevents/speech/bernanke20070206a.htm> [<https://perma.cc/PM6K-EVJB>].

²⁵² ISABEL V. SAWHILL & JOHN E. MORTON, ECONOMIC MOBILITY: IS THE AMERICAN DREAM ALIVE AND WELL? 2 (2007) (available at https://www.brookings.edu/wp-content/uploads/2016/06/05useconomics_morton.pdf [<https://perma.cc/NAV5-TVAL>]).

²⁵³ See Ronald Brownstein, *America, The (Jacksonian) Meritocracy*, ATLANTIC (Mar. 13, 2009), <http://www.theatlantic.com/politics/archive/2009/03/america-the-jacksonian-meritocracy/1486/> [<https://perma.cc/S695-UNPR>] (“As the pollsters wrote in a memo summarizing the results, ‘Despite the economic downturn . . . the notion that America is a meritocracy where individuals can apply themselves and move ahead continues to endure. Most Americans, including those on the bottom rung of the income ladder, believe their own economic mobility is within their control and remain optimistic about their ability . . . to get ahead.’”).

²⁵⁴ See Eric Luis Uhlmann & Geoffrey L. Cohen, *Constructed Criteria: Redefining Merit to Justify Discrimination*, 16 PSYCHOL. SCI. 474, 474 (2005) (finding that decision makers often set merit-based criteria for jobs in ways “congenial to the idiosyncratic credentials of individual applicants from desired groups”); see also David Dunning et al., *A New Look at Motivated Inference: Are Self-Serving Theories of Success a Product of Motivational Forces?*, 69 J. PERSONALITY & SOC. PSYCHOL. 58, 58 (1995) (examining how people frequently define merit in ways that are consistent with their own credentials); Michael I. Norton et al., *Casualty and Social Category Bias*, 87 J. PERSONALITY & SOC. PSYCHOL. 817, 821 (2004) (providing evidence of discriminatory hiring and admissions decisions justified by merit-based criteria); Uhlmann & Cohen, *supra*, at 476 (“When considering an educated, media-savvy family man, participants inflated the importance of those qualities to success at the job. But when considering a male applicant who lacked these qualities, they devalued them. No such favoritism was extended to the female applicant.”).

²⁵⁵ See, e.g., Shana Lebowitz, *3 Unconscious Biases that Affect Whether You Get Hired*, BUS. INSIDER (July 17, 2015, 11:47 AM), <http://www.businessinsider.com/unconscious-biases-in-hiring-decisions-2015-7> [<https://perma.cc/RG3B-7GXX>] (discussing the ways that inherent biases can affect determinations of merit).

up for elitism, which limits its claim to being simply a calculation of talent and hard work.

C. *The Culture of Exceptionalism*

British journalist Walter Bagehot famously described the state of exceptionalism that prevailed in nineteenth-century British governance: “The trained official hates the rude, untrained public. He thinks that they are stupid, ignorant, and restless”²⁵⁶ His view expresses the very real tension that arises between the citizenry and government officials who see themselves as exceptionally well-positioned, due to information, experience, or other factors, to make decisions of national importance on behalf of what they consider an uninformed public. This approach is particularly salient in the context of national security, where information does not flow to the public due to its classified status. Presidents have long asserted the need for exceptional power, authority, and even secrecy in matters of foreign affairs and national security. Alexander Hamilton tied the rationale for broad executive power to the threat of war, stating that “the circumstances that endanger the safety of nations are infinite, and for this reason no constitutional shackles can wisely be imposed on the power to which the care of it is committed.”²⁵⁷ This rationale was used to justify heightened power in the executive branch as necessary to “insure domestic Tranquility and provide for the common Defence.”²⁵⁸

Legal scholars have described a part of this influence as one of “foreign relations exceptionalism” that courts have promulgated for almost a century.²⁵⁹ Exceptionalism results from the federal government’s differential

²⁵⁶ WALTER BAGEHOT, *THE ENGLISH CONSTITUTION 194–95* (Kegan Paul, Trench, Trubner & Co., 1st ed., 1894).

²⁵⁷ THE FEDERALIST NO. 23, at 115 (Alexander Hamilton) (Clinton Rossiter ed., 1961). Madison agreed that it would be “vain to oppose constitutional barriers to the impulse of self-preservation.” THE FEDERALIST NO. 41, at 207 (James Madison) (Clinton Rossiter ed., 1961).

²⁵⁸ “[U]nder the doctrine of enumerated powers you must go to the Constitution to find a special warrant for the things that are necessary to be done, but . . . under the doctrine of a plenary inherent war power, you resort to the Constitution only to find out if there is definite language which forbids the things necessary to be done. The doctrine of inherent powers, in other words, makes constitutionally available all of the resident forces of the United States as a national community in the waging of war.” EDWARD S. CORWIN, *PRESIDENTIAL POWER AND THE CONSTITUTION: ESSAYS* 161 (1976).

²⁵⁹ See Jean Galbraith & David Zaring, *Soft Law as Foreign Relations Law*, 99 *CORNELL L. REV.* 735, 760 (2014) (discussing foreign relations exceptionalism); Adrian Vermeule, *Our Schmittian Administrative Law*, 122 *HARV. L. REV.* 1095, 1106–31 (2009) (describing national security law cases where the executive branch was exempt from legal constraints); Curtis A. Bradley, *A New American Foreign Affairs Law?*, 70 *U. COLO. L. REV.* 1089, 1096 (1999) (defining foreign relations exceptionalism as the idea that the federal government’s foreign affairs powers are subject to different constitutional restraints than those that regulate its domestic powers); Curtis A. Bradley, *The Treaty Power and American Federalism*, 97 *MICH. L. REV.* 390, 461 (1998) (defining the approach of foreign affairs exceptionalism); HAROLD HONGJU KOH, *THE NATIONAL SECURITY CONSTITUTION* 117 (1990) (“This simple, three-part combination of executive initiative, congressional acquiescence, and judicial tolerance explains why the president almost invariably wins in foreign affairs.”); Archibald Cox, *Executive Privilege*, 122 *U. PA. L. REV.* 1383, 1383 (1973) (providing a historical Supreme Court overview of

treatment of foreign relations affairs (inclusive of national security) from domestic matters.²⁶⁰ The idea, as expressed in Justice Sutherland's opinion in *United States v. Curtiss-Wright Export Corp.*,²⁶¹ is based on the presumption that the President has exceptional knowledge of "the conditions which prevail in foreign countries" due to institutional resources.²⁶² Thus, Justice Sutherland opined, "[s]ecrecy . . . may be highly necessary" to avoid embarrassment.²⁶³

For many years in this country, the Supreme Court has, in effect, given deference to the President's authority to decide certain matters in the realm of foreign affairs, national security, and intelligence. This has been particularly so during times of war. During World War II, for example, President Roosevelt decided, via executive order, to try eight Nazi-sponsored saboteurs before an ad hoc military commission instead of in the regular courts on the grounds that military officials were better suited than a jury composed of civilians to appreciate the dangers such spies posed to the security of the United States.²⁶⁴ In the landmark case *Ex parte Quirin*,²⁶⁵ the Supreme Court, in a per curiam order, upheld the commission's jurisdiction and the eight saboteurs were convicted and sentenced to death.²⁶⁶ Such approaches continued during the Cold War. In *United States v. Nixon*,²⁶⁷ the Court articulated doctrinal exceptionalism by suggesting that it would treat claims of executive privilege differently and more deferentially when they

executive privilege taking into account the supervening decision of the Court in *United States v. Nixon*, 418 U.S. 683 (1974)); For work adopting a functionalist view of exceptionalism, see Garrick B. Pursley, *Dormancy*, 100 GEO. L. J. 497, 560 (2012) (describing the different critiques and views of foreign affairs exceptionalism); Daniel Abebe & Eric A. Posner, *The Flaws of Foreign Affairs Legalism*, 51 VA. J. INT'L L. 507, 509 (2011) (noting the history and development of executive primacy); Eric A. Posner & Cass R. Sunstein, *Chevronizing Foreign Relations Law*, 116 YALE L. J. 1170, 1202 (2007) (stating that deference to the executive in foreign relations is based on functional considerations); Julian Ku & John Yoo, *Beyond Formalism in Foreign Affairs: A Functional Approach to the Alien Tort Statute*, 2004 SUP. CT. REV. 153, 155 (2004) (recognizing the functional superiority of the President in managing foreign affairs); Jide Nzelibe, *The Uniqueness of Foreign Affairs*, 89 IOWA L. REV. 941, 944 (2004) (arguing that questions of foreign affairs are treated differently than other constitutional questions).

²⁶⁰ See G. Edward White, *The Transformation of the Constitutional Regime of Foreign Relations*, 85 VA. L. REV. 1, 4 (1999) (stating the difference between foreign and state affairs).

²⁶¹ 299 U.S. 304 (1936).

²⁶² *Id.* at 320.

²⁶³ *Id.*

²⁶⁴ See Michal R. Belknap, *The Supreme Court Goes to War: The Meaning and Implications of the Nazi Saboteur Case*, 89 MIL. L. REV. 59, 63–65 (1980) (detailing President Roosevelt's reasoning for the decision to try the saboteurs in the military commission).

²⁶⁵ 317 U.S. 1 (1942).

²⁶⁶ G. Edward White, *Felix Frankfurter's "Soliloquy" in Ex Parte Quirin*, 5 GREEN BAG 2D 423, 425–26 (2002) (detailing how President Roosevelt's order creating the commission provided that review of its decisions would be solely by the President); see also *Korematsu v. United States*, 323 U.S. 214, 216 (1944) (affirming that Mr. Korematsu's failure to follow the military order constituted a crime and opining that while the curtailment of the civil rights of one racial group was immediately suspect and subject to strict scrutiny it was not automatically unconstitutional as "public necessity may sometimes justify the existence for such restrictions").

²⁶⁷ 418 U.S. 683 (1974).

involve “military, diplomatic, or sensitive national security secrets.”²⁶⁸ These doctrines were used by the executive branch to advance constitutional authority for enhanced presidential powers.²⁶⁹ During the years following September 11, 2001, however, the Supreme Court constrained Presidential authority in foreign affairs relating to the fight against terrorism²⁷⁰ and, now, some scholars believe we are entering an era where foreign-relations exceptionalism is waning.²⁷¹

This history of how exceptionalism has influenced ideas about executive-branch decision making illustrates a point central to this Article: there is still a prevailing view that the best decision makers are those with access to special knowledge. We often believe that more information leads to better choices. But this view is overly simplistic. It fails to account for the ways that people discount information due to bias or other decision-making pathologies. In doing so, subjective assumptions, for example about who is a suspected terrorist or what behaviors constitute a national security threat, become more acceptable.²⁷²

In this way doctrinal exceptionalism can give rise to institutional exceptionalism in the workplace based on cultural norms about who is best suited to decide. In some offices, the person who works the hardest and has dark circles under her eyes to show it is believed to be the most knowledgeable. Yet, we know that sleep deprivation changes the way the brain functions and often impairs key cognitive capacities, such as memory

²⁶⁸ *Id.* at 706.

²⁶⁹ *See, e.g.*, 8 U.S. OP. OFF. LEGAL COUNSEL 101, 116 (1984) (documenting DOJ reliance on the Court’s *Nixon* dicta).

²⁷⁰ For a recent case where the Supreme Court constrained Presidential expansion and exceptionalism, see, e.g., *Hamdan v. Rumsfeld*, 548 U.S. 557, 593 (2006) (noting the majority opinion of Justice Stevens). The Court’s opinion rejected the choices of the Bush Administration in this matter and found that they violated U.S. treaty obligations to uphold Common Article 3 of the Geneva Conventions. *Id.* at 625–26; CONVENTION (III) RELATIVE TO THE TREATMENT OF PRISONERS OF WAR: CONFLICTS NOT OF AN INTERNATIONAL CHARACTER: ART. III, INT’L COMMITTEE OF THE RED CROSS (Aug. 12, 1949), <https://www.icrc.org/ihl/WebART/375-590006> [<https://perma.cc/YG2A-6LNU>] (requiring that taking out judgment not pronounced by a regularly constituted court is prohibited against persons taking no active part in the hostilities in a conflict not of an international character); see also *Hamdi v. Rumsfeld*, 542 U.S. 507, 544–45 (2004) (recognizing the government’s authority to detain enemy combatants even if they are U.S. citizens, but the Court found that citizens are entitled due process rights and U.S. courts are entitled to review such rights); *Rasul v. Bush*, 542 U.S. 466, 484 (2004) (finding that federal courts have jurisdiction to take up challenges by detained foreign nationals held at Guantanamo).

²⁷¹ *See, e.g.*, Ganesh Sitaraman & Ingrid Wuerth, *The Normalization of Foreign Relations Law*, 128 HARV. L. REV. 1897 (2015) (offering a theory of the definition of exceptionalism and arguing that exceptionalism is waning as foreign relations is becoming less exceptional).

²⁷² *Hamdan*, 548 U.S. at 635 (“We have assumed, moreover, the truth of the message implicit in that charge . . . that Hamdan is a dangerous individual whose beliefs, if acted upon, would cause great harm and even death to innocent civilians, and who would act upon those beliefs if given the opportunity. . . . [I]n undertaking to try Hamdan and subject him to criminal punishment, the Executive is bound to comply with the rule of law that prevails in this jurisdiction.”). Salim Ahmed Hamdan, a Yemeni citizen, was in Afghanistan working for Osama bin Laden, first on an agricultural project and later as a chauffeur and bodyguard. *Id.* at 570. In 2002, Mr. Hamdan was detained and imprisoned at Guantanamo but was not formally charged with conspiracy to commit terrorism until 2004, two years later. *Id.* at 566.

and attention, needed for effective decision making.²⁷³ In other workplace cultures, the person with special access to the President or his close advisers is presumed to be the one who should decide based on the notion that the President has somehow delegated his decision-making authority to the person with whom he has a closer relationship. But there is nothing from a neuroscientific perspective to suggest that such a metric indicates good decision-making skills. We could critique many other ways that people are chosen, explicitly or implicitly, to make decisions. The reality is that we have long substituted unproved criteria as metrics for determining who decides in the executive branch. Now, thanks to emerging science about our brains, we do not have to rely solely on these traditional views.

IV. TOWARD A COGNITIVE VIEW OF DECISION-MAKING COMPETENCE

A. *Deepen Understandings About Executive-Branch Decision Making*

In the twenty-first century we can no longer afford to presume that certain institutions or the people who work within them are exempt from the realities of being human. Among these are the realities about how brains work, how we process information, the ways in which we make choices and more. Thus, efforts to improve governance in the executive branch and beyond rely, at least in part, on increasing awareness about how people decide. This Article has endeavored to introduce a neuroscientific view of decision making to the context of choices made by top officials in the executive branch. I have sought to persuade readers that employing neuroscience to study cognitive competence in government decision making will illuminate understandings about how good choices, and therefore good governance, occurs. The task of future work is to determine how such information ought best to inform law, policy, and institutional design. Here, I outline some initial thoughts regarding the work that lies ahead.

The first task is to identify how to update understandings about decision making. Doing so requires getting people who study the brain and decision making together with people working on institutional and organizational reform. One can imagine various possibilities. The President could create an interagency working group calling for an ongoing study. Alternatively, the President can issue an Executive Order calling for the investigation of how neuroscience can better inform who should be selected for executive-branch posts and how to improve decision making institutionally and individually. Both strategies have been employed before.²⁷⁴

²⁷³ Paula Alhola and Paivi Polo-Kantola, *Sleep Deprivation: Impact on Cognitive Performance*, 3 NEUROPSYCHIATRY DIS TREAT 553 (2007).

²⁷⁴ See, e.g., The White House National Science and Technology Council Interagency Working Group on Neuroscience (Feb. 21, 2014) (available at https://www.whitehouse.gov/sites/default/files/microsites/ostp/NSTC/accelerating_neuroscience_research).

The second task is to determine if and how new information ought to inform change and reform. One specific proposal is to update the practices for selecting political appointees. The Senate could, for example, implement a procedural measure during the appointments confirmation process to consider cognitive criteria alongside education and other markers of competence for potential appointees. In doing so, they would commit to follow a practice of considering such criteria during the deliberations they already hold when considering an appointment. Another possibility would be for agency leaders in the civil service or at the Senior Executive Service level to initiate a joint study across the executive branch to identify criteria that measures cognitive competence. These criteria could be included in the formal employment requirements needed for promotion to senior positions.

A third challenge is to integrate neuroscientifically driven reform proposals with other views about reform. In this regard, scholarship in administrative law and constitutional law offer important reform ideas.²⁷⁵ The query shared by all is how to effect change. Some scholars locate such responsibility with the President and her or his delegates.²⁷⁶ Others assume, as Tom Ridge did, that “Congressional leaders would reorganize.”²⁷⁷ Proposals for reorganizing executive-branch agencies also locate change within an institution by putting a particular person in charge.²⁷⁸ These proposals share a common denominator—good governance requires cognitively competent people capable of making good decisions. In that spirit, this Article has sought to highlight an area often forgotten among such reform efforts—the importance of hiring and appointing competent

ch - feb 2014.pdf [<https://perma.cc/7VW5-YKZB>]; Press Release, The White House, Executive Order—Using Behavioral Science Insights to Better Serve the American People (Sept. 15, 2015), <https://www.whitehouse.gov/the-press-office/2015/09/15/executive-order-using-behavioral-science-insights-better-serve-american> [<https://perma.cc/98GE-T6SX>] (discussing Executive Order to promote the application of behavioral science insights with regard to policy development and other executive branch tasks).

²⁷⁵ It is beyond the scope of this Article, but an important focus for future work will be to intersect neuroscience research with the rich discourse in administrative law and constitutional law regarding decision making and institutional design. See, e.g., Alfred C. Aman, Jr., *Administrative Law in a Global Era: Progress, Deregulatory Change, and the Rise of the Administrative Presidency*, 73 CORNELL L. REV. 1101 (1988) (recalling the Reagan administration’s approach to deregulation as a way of decreasing government and analyzing the interplay between administrative and constitutional law in this context); Michael Dorf, *Legal Indeterminacy and Institutional Design*, 78 N.Y.U. L. REV. 875 (2003) (advocating for a return to legal process theory to better understand institutions and their design); David A. Super, *Against Flexibility*, 96 CORNELL L. REV. 1375 (2011) (analyzing the optimal timing of government decision making during crises and disasters and arguing against taking a reflexive approach to flexible decision making).

²⁷⁶ See, e.g., Ingber, *supra* note 14, at 109 (“Internal checks are only as strong as the expertise and cultural norms of the personnel or institutions making decisions.”); Rascoff *supra* note 15, at 640 (2016) (“sound institutional design. . . call[s] for a mixture of centralized review based in the White House and greater numbers of political appointments . . . in the intelligence agencies”).

²⁷⁷ Steven Brill, *Is America Any Safer?*, ATLANTIC (Sept. 2016), <http://www.theatlantic.com/magazine/archive/2016/09/are-we-any-safer/492761/> [<https://perma.cc/MU9D-JXX2>].

²⁷⁸ *Id.* (describing how Chip Fulghum, Department of Homeland Security’s chief financial officer, was hired as a part of a “cleanup operation” after 9/11 for the Department).

executive-branch officials.

Information is powerful, but it is not always enough to change deep-seated institutional cultures and norms. One cognitively competent person is not enough to combat systemic biases that prevail in government and in law. Deep reform must also seek to destabilize faulty and problematic notions that permeate the culture of various agencies and units within the executive branch (e.g., emotions make a person weak, being strong on security means not having empathy for the enemy, working so hard you lose sleep is a sign of how important you are). This Article offers a starting point, while acknowledging that much work remains.

B. *Seek Reform at the Individual Level*

This Article has introduced a new way of analyzing decision making at the individual level within the executive branch to expand definitional understandings about competence in executive-branch decision making. Who should decide matters of national importance ought to be informed by how decision making, however varied and complex, takes place in our brains. We must look at the personal attributes of individuals more closely and with more evidentiary rigor.

Basic guidelines that will generally improve cognitive capacities are straightforward. Get enough sleep. Do not be exceptionally stressed for a long, consistent period of time. But other insights are not as well understood. Functional mirror neurons invoke cognitive capacities, like memory, that enhance reasoning.²⁷⁹ Emotional numbing does not work; instead, emotions will influence how one's brain operates in varied ways, sometimes positively and in other times negatively.²⁸⁰ Prescriptions are nuanced and not straightforward, but if an official wants to improve his or her decision-making competencies, neuroscience can provide valuable guidance.

This Article has presented information about how individuals make decisions and the cognitive processes our brain use to do so. It has shown why mental inputs such as empathy and emotion can influence these processes. This section aims to illustrate how such information might alter and better inform future understandings about how executive-branch officials make decisions by appreciating how people, as individuals, decide. To do so, I present two hypothetical decision moments and analyze them through a cognitive frame. This is a creative enterprise that aims to ask questions, not definitively answer them, in order to expand our collective understanding as legal scholars about what executive-branch decision making entails.

²⁷⁹ See Ralph Adolphs, *Cognitive Neuroscience of Human Social Behaviour*, 4 NATURE REVIEWS: NEUROSCIENCE 165, 168 (2003) (discussing how the processing of perceptual information "can influence memory, attention, decision making and other cognitive functions").

²⁸⁰ See Vartanian and Mandel *supra* note 136, at 90–91 ("The somatic marker hypothesis concerns emotion that is integral to the decision-making task at hand.").

It is worth reiterating the constraints of doing so, previously described *infra* in the Introduction and Section II.A. For example, a neuroscientific study based on an fMRI provides findings specific to that particular study. A study illuminating the complexity of how empathy intersects with other cognitive processes associated with decision making in the brain in order to assert that empathy matters to decision making does not implicitly aim to ascribe value—that empathy is good or bad—in its implication. Extrapolation of those findings does not provide the certainty or definitive assertions common among law review articles. Yet, such caution is the methodologically responsible approach and the one followed here.

1. *Plan for the Crisis Brain*

During times of emergency, decision-making competence is vital. As Cicero long ago observed, “when arms speak, the laws are silent.”²⁸¹ This may occur for various reasons. In some cases, decision makers ignore or reinterpret the substantive law. In other cases, the law simply provides no guidance because the context is sufficiently new and different that the law does not neatly apply. Not surprisingly, the lack of legal clarity or applicability does not prevent decisions from being made. In a crisis, decision makers act and questions about the legality of their actions are retrospective.

The problem that has arisen in the years since September 11, 2001 is that the context of crisis has become perpetual. Although the Constitution does not formally provide the President with so-called emergency powers, Presidents have taken them.²⁸² In this environment, traditional procedural-legal constraints and influences on the choices that government decision makers take may fail. Constitutionally derived separation of powers aims to involve Congress in presidential decision making that will have a paramount effect on the nation, such as decisions about whether or not to go to war.²⁸³ But when practical necessities demand that a choice be made quickly, many believe that the President has implicit authority to make such choices.²⁸⁴

²⁸¹ 14 MARCUS TULLIUS CICERO, CICERO IN TWENTY-EIGHT VOLUMES 16–17 (N. A. Watts trans., 1979) (“[S]ilent enim leges inter arma,” which translates, “When arms speak, the laws are silent”).

²⁸² See *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 610 (1952) (Frankfurter, J., concurring) (discussing the Constitution’s Take Care clause and the unenumerated powers that are understood to flow from it).

²⁸³ See War Powers Resolution, 50 U.S.C. § 1541(a) (2012) (declaring the purpose of the resolution is to insure that both the President and Congress shall apply their “collective judgment” on decisions of going to war).

²⁸⁴ The series of cases vital to this question derive from the Second World War and the Korean War and show the commonly held view in favor of expanding presidential authority during wartime. See *Youngstown*, 343 U.S. at 610–11 (discussing the concept of the unenumerated powers of the presidency and how the executive branch has expanded powers during wartime that it would not have in times of peace); *Korematsu v. United States*, 323 U.S. 214, 217–18 (1944) (holding that the risks of espionage and sabotage were severe enough to allow the President to exclude anyone of Japanese ancestry from the war area on the west coast). *But see Boumediene v. Bush*, 553 U.S. 723, 732–33 (2007) (holding that the

The conditions for necessity vary. Crisis, however, has a long history of prompting changes in decision-making authority. As Cicero wrote at the end of the Roman Republic, “[e]veryone of standing had realized that the republic’s rule of law and order had given place to the rule of the stronger.”²⁸⁵ Necessity was certainly the rationale given for the many changes, or “crash efforts,” that occurred after the attacks on September 11, 2001.²⁸⁶ New threats were thought to require fast and decisive decisions. Yet decision making driven by crisis and necessity is often deeply flawed. After 9/11, various government agencies and actors reacted at the cost of an estimated one trillion dollars.²⁸⁷ As a Government Accountability Office auditor explains, “[i]f you’re shocked and scared and you know there’s a threat out there, you’ll do anything, spend anything, to deal with it . . . even if what you spend it on hasn’t been tested and you haven’t even set any standards to evaluate it.”²⁸⁸ U.S. Representative of Arizona Martha McSally described the culture at the time, saying, “[w]e rolled something out in a panic after 9/11 and then it lingered in a substandard place because attention shifted.”²⁸⁹

Since the reality of many decision-making environments is one of crisis, those tapped to decide ought to prepare for such. Neuroscience offers important implications for how brains proceed under stress. Consider, as an illustrative example, the killing of Osama bin Laden. On the afternoon of May 1, 2011, President Barack Obama was in the White House Situation Room with his national security team watching live video feed (with audio narrated by CIA Director Leon Panetta) showing an aerial view of the U.S. Navy SEALs operation to kill Osama bin Laden in his compound near Abbottabad, Pakistan.²⁹⁰ The President, acting as commander-in-chief, had given final authorization for the operation two mornings prior.²⁹¹ His

President may not suspend habeas corpus in the detention of enemy combatants); *Hamdan v. Rumsfeld*, 548 U.S. 557, 567 (2006) (concluding that the President cannot convene a military commission that violates the Uniform Code of Military Justice and the Geneva Conventions); *Hamdi v. Rumsfeld*, 542 U.S. 507, 509 (2004) (holding that the President does not have the wartime authority to hold a United States citizen as an enemy combatant without review of the detention before a “neutral decisionmaker”).

²⁸⁵ JANET COLEMAN, *A HISTORY OF POLITICAL THOUGHT: FROM ANCIENT GREECE TO EARLY CHRISTIANITY* 274 (2000).

²⁸⁶ See Brill, *supra* note 277 (using the term to describe the fast changes that occurred in the immediate aftermath of 9/11 including reconstituting the air-marshals program, doubling the number of Border Patrol agents, creating and passing through Congress a Victim Compensation Fund in a record ten days, and the creation of the Transportation Security Authority (TSA)).

²⁸⁷ *Id.*

²⁸⁸ *Id.*

²⁸⁹ See *id.* (referencing Congress’s creation of BioWatch, a biodefense monitoring program developed after the anthrax attacks in September 2001 under the Bush administration).

²⁹⁰ Jamie Crawford, *The bin Laden Situation Room Revisited—One Year Later*, CNN (May 1, 2012, 2:00 AM), <http://security.blogs.cnn.com/2012/05/01/the-bin-laden-situation-room-revisited-one-year-later/> [https://perma.cc/JC8Z-MJT6]; CNN Wire Staff, *How U.S. Forces Killed Osama bin Laden*, CNN (May 3, 2011, 11:59 GMT), <http://edition.cnn.com/2011/WORLD/asiapcf/05/02/bin.laden.raid/index.html> [https://perma.cc/7K9K-6RQD].

²⁹¹ CNN Wire Staff, *supra* note 290.

authorization was influenced by determinations that the operation was legally permissible.²⁹² However, he made certain choices in real-time during the operation itself—including, purportedly, the decision not to bomb the compound.²⁹³

How might such visual input from the live video feed have influenced the President's decision-making process from a neurological perspective? Imagine that the President had not slept well the night before, making his prefrontal cortex more vulnerable to stress.²⁹⁴ The release of stress hormones, such as cortisol, transforms cells in the hippocampus, which inhibits new learning.²⁹⁵ Now imagine that the President empathized with the soldiers' own feelings of distress, triggering the President's mirror neurons.²⁹⁶ His brain could process the threat to their security as a threat to his security. Such a threat can remand a person's thinking back to old neural pathways triggering System 1 thinking.²⁹⁷ For example, an fMRI study revealed that when a brain faces a conflict between a belief and logic (executive functions) the brain changes its reasoning process and recruits the right prefrontal cortex, which affords emotions—notably anger, fear, and empathy—a stronger role in decision making.²⁹⁸ The experience of fear can also stimulate more careful deliberative processes than normal because it links decision making with our working memory and emotion systems.²⁹⁹

The purpose of this example is to show that no individual is unaffected by her neurological processes, not even the President. This Article calls for understanding such complexities and working toward developing best practices that account for them. Due to the enormous importance and impact of decisions that a President makes, this type of data should inform institutional practices surrounding presidential decision making. In other words, a President could plan for his crisis brain by exploring factors that both inhibit and enhance his cognitive capacities during crisis-based

²⁹² The Obama Administration relied upon the Authorization for Use of Military Force Against Terrorists Act (authorizing the President to use “necessary and appropriate force”) in this operation. See Speech by Stephen W. Preston, *The Legal Framework for the United States’ Use of Military Force Since 9/11* (Apr. 10, 2015) (transcript available at <http://www.defense.gov/News/Speeches/Speech-View/Article/606662> [<https://perma.cc/DFW8-PBA2>]) (discussing the use of this and subsequent Congressional authority in direct U.S. military engagement with al’Qaida).

²⁹³ The CNN Wire Staff, *supra* note 290.

²⁹⁴ See *supra* Section IV.B (discussing functions and responses of the prefrontal cortex).

²⁹⁵ Christopher Bergland, *Chronic Stress Can Damage Brain Structure and Connectivity*, PSYCHOLOGY TODAY (Feb. 12, 2014), <https://www.psychologytoday.com/blog/the-athletes-way/201402/chronic-stress-can-damage-brain-structure-and-connectivity> [<https://perma.cc/187C-93HX>].

²⁹⁶ See *supra* Section II.B.3 (discussing the theorized function of mirror neurons).

²⁹⁷ See *supra* Section II.B.1 (discussing System 1 and System 2 thinking).

²⁹⁸ George F. Lowenstein et al., *Risk as Feelings*, 127 PSYCHOL. BULL. 267–81 (2001).

²⁹⁹ For early groundbreaking work in this area, see ANTONIO DAMASIO, *DESCARTES’ ERROR: EMOTION, REASON AND THE HUMAN BRAIN* (1994) (demonstrating that emotions play a significant role in social cognition and in decision making). For more recent work on the topic, see Antonio Damasio & Gil B. Carvalho, *The Nature of Feelings: Evolutionary and Neurobiological Origins*, 14 NATURE REVIEWS: NEUROSCIENCE 143–50 (2013) (examining the evolutionary and neurobiological origins of feelings).

decision making.

2. *Empathize with the Enemy?*

Many people assume that protecting national security is a laudable aim and that, in opposition, those who threaten our nation and us are bad actors. But where do these views come from and how might they impact the choices one makes? Do key national-security decision makers empathize with the Americans they are trying to protect? Do they demonize the enemy? And where empathy is present or absent, how does it intersect with a person's own emotions about a particular crisis or threat? From a neuroscientific perspective, these questions matter for decision making. This is why.

Imagine you are a Department of Justice attorney-adviser and you have to make a legal determination about whether or not the government's use of drones (unmanned aerial vehicles) to target and kill a suspected terrorist in a foreign country is legally permissible. How would you begin to decide that question? As a matter of legal analysis, one might begin with the facts. Our government has used drones to target and kill people since at least 2002.³⁰⁰ Today, such operations take place in at least four countries—Afghanistan, Pakistan, Yemen, and Somalia—with the purported consent of their governments.³⁰¹ Operations may be taking place covertly in other locations. Because much of the information on drone use is classified, the exact data on deaths and casualties is no more than an approximation. That said, imagine you found and reviewed the data on the following chart.³⁰²

³⁰⁰ John Sifton, *A Brief History of Drones*, NATION (Feb. 7, 2012), <https://www.thenation.com/article/brief-history-drones/> [<https://perma.cc/8VYA-PE7Y>].

³⁰¹ For data estimating drones strikes per country, see *Get the Data: Drone Wars*, BUREAU INVESTIGATIVE JOURNALISM, <https://www.thebureauinvestigates.com/category/projects/drones/drones-graphs/> [<https://perma.cc/QUP4-WAJF>] (last visited Nov. 29, 2016). For purported consent of some of the countries, see Greg Miller, *Yemeni President Acknowledges Approving U.S. Drone Strikes*, WASH. POST (Sept. 29, 2012), https://www.washingtonpost.com/world/national-security/yemeni-president-acknowledges-approving-us-drone-strikes/2012/09/29/09bec2ae-0a56-11e2-aff-d6c7f20a83bf_story.html [<https://perma.cc/7ZUT-RYZF>]; see generally Jonathan Masters, *Targeted Killings*, COUNCIL ON FOREIGN RELATIONS (May 23, 2013), <http://www.cfr.org/counterterrorism/targeted-killings/p9627> [<https://perma.cc/CS7T-AUMA>].

³⁰² The data reported in the chart was sourced from The Bureau of Investigative Journalism. Jack Serle, *Drone Strikes in Yemen*, BUREAU INVESTIGATIVE JOURNALISM (Jan. 30, 2015), <https://www.thebureauinvestigates.com/2015/01/30/analysis-death-toll-drone-strikes-yemen-crisis-what-next> [<https://perma.cc/N82E-GM32>]. For estimates on drone strikes, see COLUMBIA LAW SCH. HUMAN RIGHTS CLINIC, COUNTING DRONE STRIKE DEATHS 20–26 (2012), <http://web.law.columbia.edu/sites/default/files/microsites/human-rights-institute/COLUMBIAPakistanDataSetFINAL.pdf> [<https://perma.cc/5NP8-HBK4>]. The Columbia data mostly corresponds to the Bureau of Investigative Journalism data.

Estimated Drone Strike Deaths					
Country	Total U.S. Drone Strikes to Date	Total Killed	Civilians Killed	Children Killed	Injured
Afghanistan	48	420-619	14-42	0-18	24-28
Pakistan	421	2,476-3,989	423-965	172-207	1,158-1,738
Somalia	15-19	25-108	0-5	0	2-7
Yemen	107-127	492-725	65-101	8-9	94-223

You might also consider the arguments for and against such strikes. Targeted drone strikes can be beneficial because drones are capable of accessing difficult mountainous terrain with little risk to U.S. military personnel.³⁰³ However, drones cannot adequately distinguish between targets and civilians, and their use may result in unintended violations of international humanitarian law, such as the killing of child bystanders. If such a tragedy occurs, it could strengthen a terrorist organization's power in the region by incentivizing civilians to join driven by a desire for revenge.³⁰⁴ In making such legally derived decisions, you may attempt to isolate your own feelings about drone strikes. You may find yourself empathizing with potential victims of terrorism or with those targeted as suspected terrorists. Such emotion and empathy would alter your cognitive functions and, in doing so, would influence what choice you made. In this way, your legal determination would be the product of more than law and facts.

The legal determination made by Harvard Law Professor David Barron and Georgetown Law Professor Martin Lederman, who were then serving in the Department of Justice's Office of Legal Council, was that the U.S. government's use of drones to target and kill suspected terrorists was legally permissible.³⁰⁵ Their memo argues that the nature of such targeted killing was consistent with the principles of the laws of war permitting the killing

³⁰³ See generally Rosa Brooks, *Drones and Cognitive Dissonance*, in *DRONES, REMOTE TARGETING AND THE PROMISE OF LAW* (Peter Bergen & Daniel Rothenberg, eds., 2015) (available at <http://scholarship.law.georgetown.edu/cgi/viewcontent.cgi?article=2266&context=facpub> [<https://perma.cc/R286-RBEM>]) (outlining arguments on both sides); see also Jordan J. Paust, *Self-Defense Targeting of Non-State Actors and Permissibility of U.S. Use of Drones in Pakistan*, 19 J. TRANSNAT'L L. & POL'Y 237, 280 (2010); Kenneth Anderson, *Targeted Killing in U.S. Counterterrorism Strategy and Law* (Brookings Inst., Georgetown Univ. Law Ctr., & Hoover Inst. Series on Counterterrorism and Am. Statutory Law, Working Paper No. 9, 2009), <https://www.brookings.edu/research/targeted-killing-in-u-s-counterterrorism-strategy-and-law/> [<https://perma.cc/HS6J-Q5UK>].

³⁰⁴ Mary Ellen O'Connell, Comment, *Seductive Drones: Learning from a Decade of Lethal Operations*, 21 J.L. INFO. & SCI., 116 (2012); Thomas Michael McDonnell, *Sow What You Reap? Using Predator and Reaper Drones to Carry Out Assassinations or Targeted Killings of Suspected Islamic Terrorists*, 44 GEO. WASH. INT'L L. REV. 243, 259 (2012).

³⁰⁵ See Memorandum from David J. Barron to the Attorney Gen. 19-21 (July 16, 2010) (on file with the Dep't of Justice, Office of Legal Counsel), http://www.justice.gov/sites/default/files/olc/pages/attachments/2015/04/02/2010-07-16_-_olc_aaga_barron_-_al-aulaqi.pdf [<https://perma.cc/2ZHP-8Y6T>] (considering whether U.S. citizenship precludes the AUMF from providing legal authority to engage in targeted killing through the use of UAVs and finding it is not unlawful).

of enemy forces, based on their interpretation that the acts described do not violate federal law.³⁰⁶

Now imagine that your first insight into drone strikes came from reading a news article about a sixth-grader named Mohammed Tuaiman.³⁰⁷ In it he describes how he and the children in his Yemeni village have nightmares about killing machines in the sky.³⁰⁸ He tells how his father and brother were previously killed in 2011 by drones, and asks why the U.S. kills innocent people.³⁰⁹ You then find out that on January 26, 2015, Mohammed died in a drone strike.³¹⁰ This type of fact-finding presents emotional factors in addition to the numerical data of the chart previously included. A target becomes a person. In response, what your mind does in reading this story is critical to the cognitive functions your brain will employ in making a decision about the legality of drone strikes. If you feel empathy for Mohammed, your motor neurons will fire up, which activates other neural processes. If you do not feel empathy and your motor neurons do not fire up, you will employ other neural processes.

The lesson is this: we need to understand empathy if we are going to understand decision making. Most people experience empathy for others at some point in their lives. Where empathy is present, it often rewires the way the brain processes other information. So, crudely put, empathy implicates the way our brains make decisions and, in doing so, influences how we decide. Yet, empathy is not on the national security agenda nor is it a part of general approaches to talking about how important decisions are made in the executive branch or in many other contexts. I argue here that it should be. We ought to understand our own empathy or lack thereof when deciding matters of national importance. The challenge that lies ahead and requires engagement between scientists and government is to understand how empathy works in a more nuanced way. It is too simplistic to preemptively categorize whether the presence or lack of empathy is normatively good or bad for effective decision making. But the science does support the basic realization that the experience of empathy during decision making does influence how cognition in the brain occurs. The point is that your decision, while informed by legal analysis, is not devoid of other factors such as

³⁰⁶ *Id.* at 21; see GLENNON, *supra* note 38, at 40.

³⁰⁷ See Chavala Madlena et al., *We Dream About Drones, Said 13-Year-Old Yemeni Before His Death in a CIA Strike*, GUARDIAN (Feb. 10, 2015, 2:01 PM EST), <http://www.theguardian.com/world/2015/feb/10/drones-dream-yemeni-teenager-mohammed-tuaiman-death-cia-strike> [<https://perma.cc/4DPW-2N48>] (reporting the tragic story of Mohammed Tuaiman, a Yemeni sixth-grader who was killed by a CIA drone on January 26, 2015, just four years after his father and brother were also killed in a drone strike). Prior to his death, Tuaiman poignantly explained that drones had become the source of nightmares for many of the kids in his village. *Id.* He also suggested that al-Qaeda was not as evil as the U.S. government. *Id.*

³⁰⁸ *Id.*

³⁰⁹ *Id.*

³¹⁰ *Id.*

empathy and the emotions it provokes. To pretend otherwise is simply inaccurate.

CONCLUSION

Humans make choices, and the choices we make are greatly influenced by the ways our brains function. This Article has endeavored to demonstrate that this information is valuable and essential to understanding how to improve decision making in the context of executive-branch governance. Emotion affects which parts of our brain fire up, which affects judgment and choice. Empathy triggers one's mirror neurons. This descriptive deepening of the concept of cognition in decision-making competence allows for a more accurate understanding of how choices get made and how law should better inform who gets to make them. It also holds persuasive power for reform by demonstrating that officials charged with making decisions of national importance are not excepted from the cognitive biases and functions that affect us all. Meaningful governance will be achieved not only through legal reform but also through reconstituting how our government and our laws determine who is qualified to serve in top decision-making positions. The difference between good and bad governance often comes down to the people who are in charge. As such, who decides matters.