Abstract: Senior government executives make many difficult decisions, but research suggests that individual cognitive limitations and the pathologies of “groupthink” impede their ability to make value-maximizing choices. From this literature has emerged a normative model that Irving Janis calls “vigilant problem solving,” a process intended for the most complex decisions. To explore its use by senior public officials, the authors interviewed 20 heads of subcabinet-level organizations in the U.S. federal government, asking how they made their most difficult decisions. The initial focus was on whether they employed a vigilant approach to making decisions that were informationally, technically, or politically complex. Most executives identified their single most difficult decision as one that required courage; they often made such courageous decisions after personal reflection and/or consultation with a small number of trusted advisors rather than in ways that could be described as vigilant. The different approaches for making complex decisions, compared with those involving courage, are discussed and a contingency model of effective executive decision making is proposed that requires leaders (and their advisors) to be “ambidextrous” in their approach.

Practitioner Points
• Government leaders must be able to distinguish between decisions that require complex analysis and those for which the difficulty is not determining the right thing to do but having the courage actually to do it. Executives should be prepared to employ different decision-making processes depending on the type of decision.
• For decisions that involve technically complex issues, senior government executives should exercise “vigilance” in their deliberations by seeking more (and more diverse) sources of input and information, so as to include the views of their civil service staff and other advisors.
• In addition, “vigilant” public sector executives who are faced with complex decisions should not rush to judgment or reveal their initial predisposition to those advising them; indeed, they should be ready to change that predisposition if faced with compelling input to the contrary.
• On the other hand, government leaders faced with a courageous “do the right thing” decision should be more introspective, reflecting on their personal values and limiting their deliberations to a small group of trusted, supportive advisors; in the end, they should trust their gut.

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Senior government executives make many difficult decisions, typically defined in the literature as those that are very complex—requiring lots of information, fraught with uncertainty or ambiguity, and involving hard trade-offs among conflicting values or interests (George 1972; Janis 1982; Nutt 1989). Examples range from decisions involving the design of government health care policies to tough budget decisions made in a fiscally constrained environment.

Making effective decisions under these circumstances is challenging. Cognitive limitations preclude individuals from fully considering all relevant information, and cognitive biases can also interfere with their information gathering and analysis. The decision maker can compensate for such individual limits by seeking out advisors and/or other sources of input. However, the literature on “groupthink” also highlights the limitations of group-based decision making. Out of these two areas of decision research has emerged an approach that Janis (1989) calls “vigilant problem solving,” a process in which the decision maker solicits input from advisors who are deliberately selected for their diverse knowledge and opinions and in which the leader actively seeks out dissenting views, critically examines the costs and risks of the preferred (and other) choices, and demonstrates a willingness to revise his or her initial predispositions in response to the deliberations. Vigilant problem solving is widely seen as the most effective process for making difficult decisions.
For this article, we interviewed 20 heads of subcabinet-level organizations in the U.S. federal government, all serving during the Barack Obama administration, and asked each the same set of questions about how they made important decisions. Ten of those executives were nominated by “good government” experts as ones who had done an outstanding job, and 10 were chosen at random from a listing of all federal subcabinet and equivalent positions. Our goal was to see whether there were significant differences in the extent to which executives in the two categories used a “vigilant” process when making difficult decisions.

What we found surprised us. Asked in our interviews to discuss their “most difficult” decision, most of the executives in our sample (including 9 of 10 outstanding ones) did not identify those that were technically complex. Rather, the vast majority described their most difficult decision as one that was unpopular or involved significant personal, political, or organizational risk—in other words, decisions that required courage. What made those decisions so difficult was not necessarily knowing the right thing to do but having the will to do it. As a result of this finding, we shifted our initial research focus from whether outstanding executives are more likely than their peers to use a vigilant process when making difficult decisions to one that examined the distinctions between decisions involving courage (an area that lacks substantial research or a widely accepted theoretical foundation) and those involving complexity.

As we did so, the classic Tom Petty song “I Won’t Back Down” came to mind. Is Petty’s admonition good advice for executives faced with difficult decisions? The literature recommends otherwise, advising the decision maker to seek varied sources of input and information and to “back down” from his or her initial predisposition when faced with compelling alternative views that may call initial assumptions or inclinations into question. However, our research suggests that while vigilance may be ideally suited to decisions involving complexity, it may not be appropriate when a difficult decision has more to do with courage. For these kinds of decisions, our research posits that Petty’s lyrical declaration may in fact be the better course. We describe the results of this research in detail in this article, and, based on our preliminary conclusions, we postulate a contingency model for effective executive decision making in which the optimum approach may depend on whether the decision involves complexity or courage.

**“Vigilant” Decision Making**

The original basis for our research was the literature on effective decision making. That literature (e.g., Braybrooke and Lindblom 1963; March and Simon 1958) notes that to make a “rational,” value-maximizing decision, one would need to list all alternative strategies, determine all of the consequences of those alternatives, comparatively evaluate those consequences in light of the decision maker’s values, and select the alternative that is most consistent with those values. However, as critics have noted, it is impossible to realize this ideal because of data-gathering and analysis burdens. Research on cognitive biases (e.g., Bazerman and Moore 2012; Kahneman 2011) has added other concerns, suggesting that a decision maker’s initial impressions “are remarkably perseverant and unresponsive to new input, even when such input logically negates the original basis for the impressions” (Ross, Lepper, and Hubbard 1975, 880; see also Lord, Ross, and Lepper 1979).

One strategy for dealing with the cognitive limitations associated with making complex decisions is to simplify the decision-making process. This idea was introduced into the public administration literature in Lindblom’s classic *Public Administration Review* article, “The Science of Muddling Through” (1959), one of the most frequently cited works in public administration and organization theory (Bendor 2015). Bendor (2015) notes, however, that the methods that Lindblom suggested for simplifying decisions never generated a research tradition and have largely disappeared from the discourse on decision making; however, we suspect that if asked, many scholars and practitioners would probably agree that Lindblom’s ideas have substantial merit.

A different approach, which also owes its public administration origins to Lindblom, is not necessarily to simplify the decision-making process but to involve more people in it. If cognitive limitations and biases create problems for an individual making a decision alone, then one alternative is for that individual decision maker to seek and synthesize multiple sources of information and perspectives. In addressing the impediments to fully rational decision making, Lindblom posits that in this way, an individual’s own cognitive limitations and biases can be mitigated: “Multiplicity copes with the inevitability of omission and other errors in complex problem solving” (1965, 151). The literature on decision making in teams and groups also suggests improved results from greater diversity of thought, including that as this may serve to counteract the cognitive biases of individual members (e.g., Jehn, Northcraft, and Neale 1999; Kahneman 2011).

While Lindblom emphasized the value of multiple sources of information and opinion in the formulation of policy in the political system as a whole, and the team literature looked at decision making in relatively egalitarian groups, often at a micro level, an additional literature, closer to the concerns of this article, has looked at the way advisors can best provide input to the decisions of top organizational leaders. George (1972; see also Porter 1982), arguing for what he called “multiple advocacy” in the organization of advice to a leader, basically suggested a top leadership decision-making process characterized by the kind of multiple inputs and points of view that Lindblom had advocated for policy making.

However, the research on group-based decision making also notes that there are inherent pathologies that inhibit the helpful flow of diverse information and perspectives. The best known is Janis’s work (1982, 1989) on “groupthink”—a phenomenon in which leaders and/or members of a group, in an effort to achieve harmony and consensus, suppress dissent, avoid conflict, ignore additional potentially conflicting information and views, and conform around a particular decision or outcome without full consideration.
of alternatives. These pathologies arise not only from cognitive limitations but also from group leader and member needs for affiliation (emotional support from the group), as well as personal agendas that leaders and advisors may pursue (Janis 1989).

As noted at the outset, Janis offers an alternative, a “vigilant” decision-making model designed to overcome both individual cognitive limitations and the pathology of groupthink. This model posits that a decision maker can make more effective decisions by seeking information and input from a group of advisors carefully selected for their diversity of experience, knowledge, and points of view and by actively soliciting their dissenting views, considering new information, challenging initial assumptions, and critically examining the costs and risks of preferred and alternative choices. Vigilant decision making is specifically designed to avoid too much agreement and a quick rush to judgment by a group. Its prescription is “more is better”—more information, more discussion, and more opportunities for debate and dissent.

Unlike Lindblom’s approach, the “vigilant” model has engendered a fairly significant body of research that generally finds support (for a summary, see Kelman et al. 2014). However, most of that research involves major foreign policy, military, or presidential decision making; there are few empirical studies on decision making in the normal operations of federal agencies, particularly domestic agencies (inasmuch as national security decisions are more insulated from transparency demands and requirements such as the Administrative Procedure Act). Thus, the main research question we originally sought to examine was the extent to which decision processes of senior U.S. federal subcabinet executives generally corresponded to the ideal of vigilant decision making. We also wanted to examine whether outstanding executives used more a more vigilant decision-making process than their peers—suggesting that one reason they were successful was that they had done so. However, some of the findings from our interviews caused us to explore a topic we did not originally intend to examine: decision making when the choices are not complex but rather require courage to make. That is the subject of this article.

Data and Methods

For this study, we interviewed 10 “outstanding” federal subcabinet-level executives and a comparison group of 10 randomly chosen peers of comparable rank and responsibility. To identify those outstanding executives, we used a “reputational approach” (Dahl 1961; Wolfinger 1960), soliciting nominations from “luminaries” who were experts on the U.S. federal government, including the 677 peer-elected fellows of the National Academy of Public Administration (NAPA), as well as the Partnership for Public Service’s 74 Strategic Advisors to Government Executives (SAGEs), a peer-elected group of former senior federal officials in information technology, acquisition, financial management, and human capital management. We also solicited nominations from a group of 16 current and former senior government officials and experts from the Office of Management and Budget, Government Accountability Office, professional staff of the Senate Homeland Security and Governmental Affairs and House Oversight and Government Reform committees, former members of Congress, and a senior journalist from a media outlet that specializes in covering government management. We sent each of these individuals a letter stating, inter alia,

We are asking for your help in identifying senior-level subcabinet executives who have served in the Obama Administration, and whose performance in managing and leading their organization has been outstanding. We are focusing in the first instance on individuals at the assistant secretary level, but these executives may also have titles such as Administrator, Commissioner, or Director...as well as executives with cross-cutting management responsibilities (such as CIO’s).

Responses were received from 38 NAPA and Partnership for Public Service luminaries, providing a total of 93 nominations. All 16 federal government officials and experts replied, providing an additional 107 nominations. Based on those responses, executives were included in our “outstanding” group if they received two or more separate nominations from both experts and luminaries; four or more separate nominations from experts alone; or three or more separate nominations from our luminaries, as well as at least one expert. In all, 11 executives qualified as outstanding based on these criteria. However, one was eliminated because the person was assigned to an organization that we judged to be too small to be relevant to our study.

We drew our comparison group from the most recent (2008) “Plum Book” (officially titled United States Government Policy and Supporting Positions), which is published every four years by the U.S. Senate Committee on Homeland Security and Governmental Affairs. We used a random-number generator to select from among officials in positions with the titles assistant secretary, undersecretary, administrator, director, and department-level chief financial officer, chief information officer, and chief human capital officer; we included comparable positions in the three military departments because of their size, but we excluded assistant secretaries for public and/or legislative affairs and general counsels, as well as positions from organizations that we judged to be too small in comparison to those represented in our “outstanding” group, for a total N of 388. However, because the result included a disproportionate number of chief financial officers (CFOs) and chief information officers (CIOs) (4 of the 10), we split the selection of the comparison group into two: one for CFOs and CIOs and one for all other positions. Note that four selectees in the comparison group declined to participate and were replaced using the same method.

We conducted interviews of all 20 executives during the last year of the first term of the Obama administration, as well as the first year of the second Obama term. Each respondent was interviewed...
in person, generally for two to four hours; interviews were recorded and then transcribed verbatim, resulting in more than 2,000 pages of transcript. Interviews followed a standard format, consisting primarily of open-ended questions. Among other things, we asked about each respondent’s approach to decision making, to include their typical sources of information and advice; their techniques for encouraging discussion and dissent; and examples of situations in which they had changed their original predisposition to the decision.

The last question in the part of our interview protocol dealing with decision making was, “Please think about the single most difficult major decision you have made on this job. What was the decision? Why was it difficult? How did you go about making the decision?” This line of inquiry was intended to elicit more detailed information about our original research focus on vigilant decision making, and, in keeping with the literature regarding what makes decisions difficult, we expected respondents to describe decisions that were cognitively complex. However, as noted earlier, that did not turn out to be the case.

We acknowledge that our data were gathered from a very small sample. However, it was not feasible to interview a large sample of top federal leaders at the level of detail we required. A large-N survey likely would not achieve a significant response rate among our target group, nor would it provide the rich detail we were seeking. Thus, as is common in qualitative research, we sacrificed breadth for depth. However, in so doing, we attempted to ensure rigor by systematically choosing respondents, using a standard interview protocol to gather hundreds of pages of transcribed responses, and analyzing the content of those responses using both computer-based and human scoring. Still, we present our results here as suggestive only, in the tradition of utilizing qualitative research to help generate theory rather than to test it (Edmondson and McManus 2007).

Results
As noted, our central finding surprised us. When we asked respondents why their most difficult decision was so difficult, we expected them to say that it was because it was so complex. However, only 1 of the 10 outstanding executives (and 5 of the 10 in the comparison group) cited complexity as the reason for the difficulty of their decision. The others said it was because the decision was unpopular, emotionally wrenching, or went against the counsel of their advisors, hierarchical superiors, or powerful external organizations.

For example, three of the most difficult decisions cited by our outstanding executives involved going against organizations such as the Office of Management and Budget (OMB) and the Government Accountability Office or the executive’s own organizational superiors. An excerpt from one of our interviews is representative:

>Congress had passed major legislation affecting the agency’s mission, and the agency needed to move to implement this legislation. However, the government was in the middle of budget-crisis land and continuing resolutions and the beginning of the [presidential] campaign at that time, and OMB simply did not want to support us in getting moving on [this]. So I had to make the decision, do I just eat this or do I hope for the best? I was kind of, in a way, left fighting the fight myself, you know, so a guy with fewer tools and smaller tools up against people who can be very hard to deal with. So I had to go really kind of go toe-to-toe with OMB and say, “Absolutely not. I am going to go tell Congress directly that I need an [exception], and I don’t care. You can fire me. You only get to do that once. I dare you. And I’m going to go get this because I’ve got to have it to implement this legislation.” You always have a choice. And not fighting is actually not that hard of a choice in government because there’s so little actual accountability. So at the end of the day, on all of these things, I’ve had to just say, “All right, I know what I’m going to do. I’m going to go do it.”

The other six involved decisions with diffuse benefits and concentrated costs (Olson 1982)—that is, diffuse benefits to the public as a whole (in the form of better government), compared with tangible costs to specific units or employees within the organization. Such decisions are widely unpopular among those with whom the executive deals and often emotionally wrenching. Thus, three of those six involved decisions to cancel or curtail programs over the strong objections of the organizational units managing them. For example, one outstanding executive recounted,

>We decided to stop 45 programs. What was difficult about that is it’s the caliber of hard decision that has a huge impact on an agency. I’m asking my Cabinet Secretary boss I’d been working for, for exactly thirty days, to trust me on this one. …I’m not wading into the pool. I’m going to belly-smacker this thing, and it’s either going to work really well or it’s going to be really bad.

The final three decisions involved the termination of individual longtime career managers, downsizing, or a significant restructuring of the executive’s organization and its jobs. The following is an excerpt from one of these interviews:

>Adverse personnel decisions are tough because they impact individuals—immediate feedback, impact on specific individuals, so if you have any compassion, it’s hard. [One of my senior career executives] thought his own performance was outstanding, I thought it wasn’t, and I needed to take it up a notch. I needed somebody more engaged, less ceremonial, who just attended meetings and carried the title. He thought his record showed tangible, definable things he could demonstrate to support his viewpoint, I thought in many cases these things cut in the opposite direction…showed he was not collaborative, didn’t work well with teammates, didn’t inform me and others of developments. He was a classic negative SES [Senior Executive Service] model of hiding problems, hoping nobody will ever know. He wanted to keep superiors and peers out of his work, he had a real sense of proprietorship and ownership, a classic turf-ist. Also, he had the attitude, “I have a big title, I want a big office, I have a lot of staff, I will sign up for the big meetings, and others will do the work.” So I had a long process of establishing the performance measures, having a conversation about what his performance was. He refused to sign his performance
All of these executives—outstanding and comparison group alike—used strikingly similar words when describing their courageous decisions. For example, one stated that “ultimately, I had to make a decision that we weren’t going to yield on the requirement, that doing the right thing long-term was more important to the long-term viability of the program.” Another told us, “I finally concluded [the program] could not be made to work...And I was not willing to implement a public program I believe is flawed.” A third stated, “Well, there were certainly a lot of people that thought we should continue [the program], but in the end, I mean, it was my call because the leader of that organization was looking to me to make that recommendation, right?”

The executives who made these decisions knew “the right thing to do” (of course, given that many of these decisions were unpopular, others would almost certainly disagree with them). However, they also knew that doing the right thing would be exceedingly difficult. The conflict they faced was between taking the easy way out, and thus avoiding aversive personal consequences, and behaving courageously despite such consequences. Because the decisions were painful, making them required courage. In all of these cases, the executive chose the decision he or she regarded as painful but right.

As we noted earlier, our initial research sought to examine the extent to which senior executives used a vigilant decision-making process. For those decisions that we classified as technically complex, we found that to be true—executives consulted multiple advisors, gathered additional information from a variety of sources, encouraged dissent, and deliberately avoided rushing to judgment. But little of that vigilance was present when they discussed decisions that we classified as courageous. Only three of the nine outstanding executives who made courageous decisions reported that they gathered significant new information to help them do so.

In these three cases, although there was a lot of information gathering, at the end of the day, the information gathered pointed in one direction—in favor of a decision that would be unpopular and require courage to make. As one executive who decided to cancel programs stated, “We looked at it every way we could. We just couldn’t figure out how you made the program successful, right?” In other words, in contrast to a complex decision with unclear technical choices, the additional information gathered in these three cases seems to have made “the right thing to do” much more clear-cut to the decision maker.

For the other six, information gathering was minimal. Thus, instead of consulting a wide variety of advisors to get diverse opinions, our courageous executives tended to employ a more solitary decision-making process. Indeed, six of the nine outstanding executives essentially made the decision by themselves, choosing not to involve others after their initial information-gathering efforts.

The extensive information gathering, diverse sources of advice and input, and discussion and debate inherent in vigilant decision making may actually serve to undermine a decision maker’s intention to act courageously. A central implication of our research is that these two bodies of research—the literature on complex decisions and the literature on decisions involving courage—may provide different prescriptions for the decision maker. The extensive information gathering, diverse sources of advice and input, and discussion and debate inherent in vigilant decision making may actually serve to undermine a decision maker’s intention to act courageously.

While one can imagine a situation in which support from a large, diverse group of advisors might steel the executive’s resolve, the literature suggests that the opposite is far more likely to be true—that is, large groups tend to dilute courageous personal behavior by absolving individual members of accepting personal responsibility (Moore and Gino 2013; Zimbardo 2007) or by diffusing individual responsibility for failing to do so (Latane and Darley 1968; Moore and Gino 2013). In the colorful words of Margaret
Thatcher, more consultation may induce an executive to “go wobbly.” Thus, when an executive is contemplating a courageous decision, self-reflection—looking inside oneself—may be more effective than relying on a group of advisors. Indeed, if deciding courageously is hard, it would seem the last thing the executive needs in such a situation is a large number of advisors debating the wisdom of his or her decision. Support from a small group of trusted individuals whose ethical identity the executive respects may be more helpful.

In this regard, we are especially interested in the final stages of those decisions that required courage—that is, when the decision maker had determined “the right thing to do” but then faced the daunting prospect of actually deciding to do it. We did not ask our respondents any specific questions about this, although several subjects volunteered something to the effect of, “I decided I just had to do this.” And while we know that some of our executives also consulted a small, trusted group of advisors, we are left to theorize about the rest.

One very plausible view, to which we were initially drawn, is that decision makers introspected; in other words, they engaged in a sort of deliberation with themselves. We continue to believe this is a very plausible view. However, we also note a recent strand of research in social psychology (Rand and Epstein 2014; Rand, Greene, and Nowak 2012) suggesting that in decisions that involve a “greater good,” those who decided in favor of that greater good tended to do so intuitively rather than introspectively. In a series of experiments involving social dilemma games, the researchers asked their subjects to decide how much of a benefit to keep for themselves versus how much to give to others (that is, the “greater good”). The experiments varied the time in which subjects had to make such decisions, and the researchers found that the more quickly subjects were forced to decide, the more likely they were to decide in favor of that greater good.

The somewhat intriguing prescription of this research is that we might increase the likelihood of courageous decision making if an executive were forced to decide based on intuitive reaction, without the deliberative panoply and extensive information gathering recommended in the vigilant decision-making paradigm, or even the introspection reported by some of our subjects. We suggest that the findings of Rand and colleagues, along with our own theorizing regarding introspection and consultation with trusted advisors, suggest areas for future research in public sector decision making.

In any event, our research suggests the need for a contingency model—one that advocates a different decision-making process depending on whether the decision involves complexity or courage. For decisions that are technically complex, the vigilant process recommended by the literature remains optimal. Executives should ignore Tom Petty’s injunction. But courageous decisions may require a different approach, one in which introspection—perhaps shared with a small group of trusted, supportive confidants, perhaps based on intuition—replaces more information gathering, debate, and dissent. Hence the two contingent approaches to decision making.

Of course, while we have characterized these contingencies as the opposite ends of a theoretical courage/complexity continuum, we acknowledge that real-world choices are never so clear and that a decision that first appears to be a matter of “solving for complexity” can easily morph into one that requires courage.

To borrow a term from organizational design theory (O’Reilly and Tushman 2008), we believe that successful executives must be able to be ambidextrous in the way they approach decision making. One the one hand, the executive should be able to use a vigilant approach for the run of technically complex decisions, but on the other hand, he or she should also be prepared to turn inward and reflective when it becomes apparent that he or she is faced with a decision that demands courage and character. Hence ambidexterity: the ability to use either decision-making model, depending on the circumstances. Interestingly, our findings also suggest that the same model may be applied to the executive’s most trusted advisors as well—they, too, should learn to discern when their leader’s decision demands discussion, debate, and dissent and when their moral support is the order of the day. However, it is clear that we need more research on whether and how successful executives are able to switch styles ambidextrously.

Implications for Research and Practice
The literature on decision making generally focuses on complex decisions that entail extensive information gathering and detailed cost–benefit analyses. For example, Luce, Bettman, and Payne observe that “decision research has focused on the cognitive aspects of decision difficulty” (1997, 384). We believe insufficient attention has been paid to decisions involving courage, especially those made by public sector executives in the day-to-day course of their government duties. As noted, we ourselves did not intend to look at decisions involving courage until we analyzed our interview results and found what we did.

However, in so doing, we believe we have made a contribution to decision-making theory by bringing together two important bodies of research—vigilant decision making on one hand, and the relatively sparse literature on organizational courage on the other—that have not been linked in the past. In that context, we have also proffered a differentiated, contingent model for making decisions that range from complexity to courage. Admittedly, that model is based on what can be characterized as exploratory research and theory building, and we urge our colleagues, both academic and practitioner, to build on it—and to pay as much attention to public sector executive decisions that involve courage as our profession has to those involving complexity—so that government officials who are faced with most difficult choices can make them more effectively.

The most difficult decisions described here do not rise to the level of those that John F. Kennedy described in Profiles in Courage (1956). Instead, they represent what Lopez, O’Bryne, and Petersen call “extraordinary behavior in ordinary times” (2003, 185). Thus, while most executives may not be called on to make courageous, “won’t back down” decisions very often, the fact is that they are likely to face such defining moments at some time in their career. When they do, the decisions they make will likely have significant organizational, professional, and personal consequences—in other words, what they decide will matter, most especially to the individuals and agencies involved. We hope our research will help better prepare public executives to act accordingly when that time comes.
Notes
1. We note the intriguing fact that 9 out of 10 outstanding executives described a courageous decision as their most difficult, compared with only 5 of 10 in our comparison group. Is there any causal connection between outstanding performance and a tendency to decide courageously? We leave theorizing and research about this question to future research.
2. We note that they experienced the right thing to do as an ethical imperative rather than an ethical dilemma, a situation more typical for complex decisions, in which there were multiple and conflicting moral considerations at stake that make it difficult to decide the right thing to do.

References