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"I Won't Back Down"
Complexity and Courage in US Federal Executive Decisionmaking

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Senior government executives make many decisions, and not infrequently, they are difficult. By "difficult" decisions, the literature generally means decisions characterized by complicated and uncertain information, and hard tradeoffs among conflicting value objectives (George 1980, Janis 1982, Nutt 1989), such as decisions to launch the Bay of Pigs invasion or resolve the Cuban missile crisis.

Making good decisions is challenging. Cognitive limitations preclude individuals from making fully value-maximizing choices, and cognitive biases can also reduce decision quality. It has been suggested that, done properly, decisionmaking in groups can compensate for individual-level limitations. However, the literature on "groupthink" has highlighted ways group decisionmaking can fail to live up to its potential. From this literature has emerged a paradigm for more effective decisionmaking—what Janis (1989) calls "vigilant problem-solving"—that enlists a group to provide the decisionmaker more complete (and diverse) information, and thus encourage a fuller, less-biased consideration of alternatives.

For this paper, the authors interviewed 20 heads of subcabinet-level organizations in the US federal government, all of whom served (or are serving) during the Obama administration, asking each the same questions about how they made important decisions. Ten were nominated by "good-government" experts as individuals who had done an outstanding job improving their organization's performance. Ten others were chosen at random from a listing of all federal subcabinet-equivalent positions. Our research question was straightforward: Were there significant differences in how members of those two groups made decisions, and specifically, to what extent did members of the two groups used a "vigilant" problem-solving process?

Some of what we found surprised us. Asked to discuss their "most difficult" decision, most executives—and all 10 of the outstanding ones—identified decisions that were not informationally complex but instead primarily required courage to make (that is, required the willingness to do what the decisionmaker believed

was "right" regardless of the political or organizational consequences). In this context, a vigilant problem-solving paradigm might be more problematic than the literature suggests. Difficult decisions may be less about information input and more about character and resolve. The title of our paper, "I Won't Back Down," is borrowed from the Tom Petty song. Is Petty's declaration a good approach for executives when making decisions? Most literature suggests the answer is "no"; good decisionmakers should seek out multiple sources of input, listen to different views, and be prepared to revise assumptions based on new information. However, where courage is central, that approach may be counterproductive. In such cases, the leader needs personal character, perhaps bolstered by the kind of resolve provided by advisors who offer moral support rather than more, and oft-conflicting, information. In these circumstances, Petty may be correct. We thus explore both our original research question and complications emerging from our empirical results.

Theory and Research Questions

The enormous body of literature on individual decisionmaking, starting with March and Simon's *Organizations* (1958; see also Braybrooke and Lindblom 1970), notes that to make a "rational" (value-maximizing) decision, one would need to list all alternative strategies, determine all consequences of the alternatives, and comparatively evaluate these in light of one's objectives and values. As critiques have repeatedly emphasized, it is impossible to fully realize this ideal because of the data-gathering and analytic burdens it implies. The literature on cognitive biases (e.g., Kahneman 2011, Bazerman and Moore 2012, Gino 2012) adds a new set of concerns about challenges to good decisionmaking, including overconfidence in estimates about factual states of the world, as well as confirmation bias, which suggests that initial impressions "are remarkably perseverant and unresponsive to new input, even when such input logically negates the original basis for the impressions" (Ross et al. 1975, p. 880; see also Lord et al. 1979).[1]

[1] There is also a body of literature arguing too many choices can produce "choice overload" (Iyengar and Lepper 2000). A meta-analysis of studies, however, showed no main effect for more choices (Scheibehenne et al. 2010). Also, dependent variables in these studies were generally the motivation to choose or satisfaction with the choice rather than choice quality.

Group Decisionmaking

A separate body of literature deals with group decisionmaking. Kahneman is optimistic about the potential for organizations to make better decisions than individuals: "[A]n organization is a factory that manufactures judgments and decisions. Every factory must have ways to ensure the quality of its products in the initial design, in fabrication, and in final inspections" (2011, p. 418). Given individual cognitive limitations and biases, moving from individual to group decisionmaking has the potential to improve decisions. A diverse team can provide multiple sources of information that may be richer than information any one person has (Jehn at al. 1999), and it may also serve to counteract individual biases because different group members bring different (offsetting) biases to the table (Kahneman 2011). Statistical principles guarantee that judgments formed by averaging several sources have lower random error than the individual sources on which the averages are based, a phenomenon often now called the "wisdom of crowds" (Yaniv 2004). In addition, diverse group members can provide differing opinions for discussion; although the evidence is mixed (Lorge et al. 1958, Gigone and Hastie 1997), in some situations, such diversity produces better results than simple wisdom of crowds aggregation. These studies suggest that it may be feasible to employ a group decisionmaking process that involves what Janis (1989, p. 206) calls "judicious information search and analysis"—building a team characterized by deliberate diversity of knowledge and opinion, solicitation of dissenting views, willingness to consider new information that challenges initial assumptions, and an examination of costs and risks of the preferred choice.

However, much of the literature on group decisionmaking, particularly at the top of government, emphasizes pathologies. The best known is Janis' work (1982, 1989; see also George 1974) on groupthink—a phenomenon where leaders stifle dissent and members conform, producing inadequate, biased information and limited consideration of alternatives. The enemy is too much agreement, and

the prescription is "more is better"—more information search, discussion, and opportunities to hear dissent.

The existence of pressures to conform to a group majority is one of the best-established findings in social psychology (Nemeth and Staw 1989). This was first investigated in the classic Asch (1963) experiment, where many subjects gave an incorrect answer about which of three lines was longer than the others after experimental confederates unanimously gave an incorrect answer. The basic way to reduce conformity pressures is to introduce minority voices. Some of the main prescriptive recommendations in Janis or George involve consciously bringing dissenting voices into the process. Research (Nemeth 1986, Wood et al. 1994) shows even when minority views do not convert the majority, their expression often leads a group to give greater thought to the issue, which in turn can produce better decisions that are different from both the majority's and minority's initial viewpoints.

Groupthink partly occurs as a result of conformity pressures on group members and partly from leader style. Simple leader power encourages deference—in a field experiment among Navy crew members with three hierarchical levels (Torrance 1959), a group was less likely to accept the (correct) view of a lower-ranked person than the same view expressed by a higher-ranked one. In a laboratory context, Burris (2012) found that superiors tend to downgrade the performance ratings of subordinates presenting (correct) information to the group that ran counter to the leader's views. Janis (1982, p. 263) recommends leaders "should be impartial instead of stating preferences…at the outset"; Stern and Sundelius (1997, p. 138) recommend leaders "take pains to encourage timid or lower-status members to participate." Janis also recommends that leaders force the discussion to go an extra round after the group appears to reach consensus. In the laboratory, Maier and Solem (1952; see also Flowers 1977) found that when only one member of the group had the right answer, 76 percent of groups gave the right answer if the leader actively encouraged all members to express

an opinion, while only 36 percent did so if the leader did not offer active encouragement.

In this regard, one of the most important sources of information for senior leaders is members of the career civil service. There is a significant body of literature in public administration and political science on relations between senior career civil servants and political executives (e.g., Heclo 1977, Light 1987, Aberbach and Rockman 2000). Seen from the perspective of this discussion, those relationships bear on diversity in decisionmaking: one source of diverse knowledge and opinions for top government executives, especially political ones, is career civil servants, because long-term, "inside" career people have a different perspective from short-term outsiders. As Aberbach and Rockman (2000, p. 91) note:

There is a sort of yin and yang in government between dynamism and ballast. Politicians tend to provide the dynamics and bureaucrats the ballast. Leadership, drive, and vision are essential to government, but continuity, connections to the past, and an appreciation of policy practicality and political feasibility are equally important.

Many practitioner guides for political appointees (e.g., Ferrara and Ross 2005, Abramson et al. 2008) note the tensions between political appointees and career civil servants, and emphasize the importance of appointees listening to careerists. The consensus in the literature (e.g., Aberbach and Rockman 2000) is that after getting off to a rocky start, political–career relationships tend to become better over time.

Research Questions

There is some evidence that vigilant problem-solving is associated with better decisions. A careful re-analysis of Janis' cases (Tetlock et al. 1992)—where independent analysts blind to the study's hypotheses read available accounts of each event and used a common template to classify elements of the process—found a positive relationship between process and outcome. The strongest discriminators

included acceptability of dissent and sensitivity to other points of view. A meta-analysis (Orlitsky and Hirakowa 2001) of mostly laboratory studies of group process and decision quality found all process features theorized as associated with good outcomes were positively correlated with decision quality.

A study of decisionmaking in 19 international crises (Herek et al. 1987) found high-quality processes were feasible—in 58 percent of the crises examined, the decision process displayed either all or most (six of seven) of the characteristics of effective decisionmaking identified by Janis, while another 84 percent displayed five of the seven characteristics. However, there is little research on the quality of decisionmaking processes in the normal operations of federal agencies, especially at the senior leadership level. Thus, the main research questions we originally sought to examine were:

1) To what extent do the decisionmaking processes of senior US federal subcabinet executives (outside the foreign-policy arena) exhibit characteristics of a "vigilant" problem-solving process?

2) Do "outstanding" senior US federal subcabinet executives tend to use better (that is, more "vigilant") decisionmaking processes than those in the control group, to achieve their relative success?

As noted, some of the findings from our interviews caused us to explore in greater depth the nature of the decisions our subjects made, a topic we originally did not intend to examine.

Data and Methods

The Sample

For this study, we interviewed a group of "outstanding" senior US federal subcabinet executives" and a control group of similar composition for purposes of comparison.

To identify outstanding executives, we solicited nominations from experts on the US federal government. We approached fellows of the National Academy of Public Administration (NAPA),

a congressionally chartered honorary association (comparable to the National Academies of Science) for distinguished scholars and practitioners studying or working in government (N=677), and the group of Strategic Advisors to Government Executives (SAGE) identified by the Partnership for Public Service, comprising former senior management officials in the federal government in the areas of information technology, contracting, financial management, and human resources (N=74). Second, we solicited nominations from an "expert panel" comprising program associate directors and management directors from the Office of Management and Budget (OMB); senior auditors and technical experts from the US Government Accountability Office (GAO); senior committee staff of the Congress' two "government management" committees (the Senate Homeland Security and Governmental Affairs Committee and the House Oversight and Government Reform Committee), former members of Congress, and a respected journalist who focused exclusively on federal government management issues (N=16). Potential nominators received a letter from us stating, in part:

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. They could also be executives who are in charge of running a program or agency, as well as executives with cross-cutting management responsibilities (such as CXO's). …

You may define "outstanding performance" as you feel appropriate, but we ask you to think about executives who have made a significant contribution to improved results delivered by their organization, without regard to whether you personally agree or disagree with the executive's substantive policy agenda.

Systematic investigation of factors promoting success for government executives is difficult. For starters, defining success in government is harder than it is in private sector organizations, where measures such as relative shareholder value, market share, or profitability are commonly available and used for this purpose. This difficulty exists even when we can specify the executive's goals and there are ways to measure success in achieving each one. Take veterans' hospitals. An executive might seek both to reduce emergency room heart attack death rates and the average postoperative length of stay for hip surgery. However, even in this situation, one cannot create a scalar variable measuring comparative success, analogous to stock price for firms, without making subjective judgments about relative weights to give the different goals. This becomes even more difficult and subjective when more than one agency is involved, and creating a scalar variable would require subjective judgments comparing the value of the goal of reducing length of stay at a veterans' hospital with the goal of, say, achieving outstanding customer service on a Medicare telephone help line. In addition to their subjective nature, judgments about executive success that rely on goals and changes in performance measures are resource intensive, eating up most of the resources available to the researcher just to choose observations for study.

Gathering systematic data about practices associated with public sector executive success is also challenging. Such data do not exist in the data sets that economists typically use. In addition, it is essentially impossible to induce very senior government executives to respond to closed-ended surveys. A common view among public management scholars (Moore 1995) is that contextual and interaction effects are so important that, for rigorous analysis, sample sizes must become prohibitively large.

Faced with these difficulties, much of the best-known research in this area has declared methodological defeat. Probably the two most influential works on practices associated with executive success are Moore's *Creating Public Value* (1995) and Doig

and Hargrove's *Leadership and Innovation* (1990). Moore discusses cases but gives no account of how executives were chosen or the basis for deciding that they were successful. Doig and Hargrove also use cases and note (p. 5) that "we did not make our selections in any rigorous way," using their own judgments combined with those of an informal "advisory group" of 11 scholars. Furthermore, much existing work—such as Doig and Hargrove (see also Borins 1998)—consists of so-called "best practices" research drawing conclusions based only on successful cases. However, this creates the problem of selecting the dependent variable (Lynn 1996). If one chooses only successful leaders, and finds they did A and B, one cannot conclude that A and B caused success because others who were not successful (about whom one has no information) may also have done A and B.

The authors of this paper recognize that our "reputational" approach is not perfect (see Wolfinger (1960) for a critique of its use in community power studies), but we believe that it is better than other feasible alternatives. In that regard, responses were received from 38 individual NAPA Fellows/SAGEs, who provided a total of 93 nominations. All members of the expert panel responded, providing 107 nominations. We determined that a nominee would be considered part of our sample of "outstanding executives" based on one of three criteria: (1) two or more nominations from the NAPA/SAGE group and, separately, the expert panel; (2) three or more nominations from the expert panel, independent of NAPA/SAGE nominations; or (3) three or more nominations from the NAPA/SAGE group, along with one expert panel nomination. Based on these criteria, 11 executives qualified. However, one of those was eliminated because that person was in charge of an organization that was not of significant size and had a very small operating budget.

To select the control group, we used the so-called "Plum Book" (*US Government Policy and Supporting Positions* 2008) to identify positions with the titles Assistant Secretary, Undersecretary, Administrator, Director, and department-level (but not subcabinet) Chief Financial Officers (CFO), Chief Information

Officers (CIO), and Chief Human Capital Officers.[2] We also excluded positions responsible for an operating budget smaller than the smallest budget of any outstanding executives (N=388).[3]

From that list, we selected the control group using a random number generator. However, the 10 outstanding executives included a disproportionate number of CFOs and CIOs (four in total), so we split the control group selection process into two separate random drawings, one for CFOs and CIOs meeting our criteria from the Plum Book, the other for all others on the list. Four individuals selected for the initial control group declined to participate in the study, so four others were selected using same procedure.

None of those in either group worked in foreign policy, the empirical location of most earlier studies of high-level decisionmaking in the US federal government. Of the 10 outstanding executives, two came to their positions from the career civil service; of the controls, five did so. Thus, where appropriate—for instance in analyzing questions about relations between senior executives and civil servants—we analyzed results separately for executives who came to their positions as political appointees and for those who came from career ranks.

The Survey

Our interviews were conducted during 2012 and 2013 (the last year of the first Obama term and the first year of the second term). Each respondent was interviewed in person, and interviews were recorded and then transcribed afterward. Interviews followed a standard format, with mostly open-ended questions. These were:

1) Who are the *individuals inside or outside this organization* upon whom you most rely for advice or information about decisions you need to make?

2) What are the most important sources of information you use *other than people you talk with* to help you make decisions?

3) Please think about the single *most difficult* major decision you have made on this job. What was the

[2] We included incumbents of these three positions in the military branches due to their large operating budgets.
[3] We excluded assistant secretaries for Legislative and/or Public Affairs and general counsels because they typically do not directly manage large organizations.

decision? Why was it difficult? How did you go about making the decision?

4) Can you think of any situations where *information you learned* while you were deciding what course of action to take, changed your mind about your approach going forward in that situation?

5) Can you think of any situations where information you learned *after you had decided on a course of action, and were executing that course of action*, significantly changed your approach going forward? If yes, describe what happened.

6) Are there any specific steps you take to increase the diversity of points of view you hear on important decisions you need to make?

We also asked some questions specifically about relations with civil servants:

1) Are there any examples of important initiatives you have begun that were originally proposed to you by career staff?

2) Have you had any problems with situations where senior career staff has been disloyal to you?

In addition, we asked several closed-ended questions on decisionmaking style[4] and relations with civil servants (see Appendix), as well as questions about the size and composition of the respondent's personal staff and direct reports, and the size of the "top management team" (Guadalupe et al. 2013).[5] At the end of each interview, we asked a final question regarding leadership competencies:

1) Based on your experience at this job, what would you say are the most important leadership competencies that senior subcabinet executives need in order to succeed at their federal job?

Coding

The lead author developed an initial list of coding categories based on the interview protocol, as well as themes identified through a preliminary reading of

half the interviews. Codes were embedded in category families, corresponding to themes addressed in the survey questions. The entire research team then reviewed and revised these categories and definitions to reach consensus about the meaning of each code. Using Atlas.ti© Version 7.1.3., the transcripts were coded by the lead author and two of the junior authors. The second lead author and a colleague, both serving as subject matter experts, provided coding guidance when needed.

We performed a first inter-rater reliability (IRR) test on two transcripts. Kappa scores (k) were .44, .42, and .54 for decisionmaking, relations with civil servants, and leadership competency topic areas respectively. A *k* of .40 to .75 is considered to represent fair to good agreement (Landis and Koch 1977). We had a very large number of codes (96, 14, and 14 for decisionmaking, relations with civil servants, and leadership competencies, respectively), and the general rule of thumb is that IRR tends to decline with the number of codes (Sim and Wright 2005). To increase agreement, we had several discussions on results of the first test, reviewing each coded quote and discussing the meaning of each code. Based on a consensus from these discussions, we revised the code list and performed a second IRR test on one transcript, obtaining higher k scores of .60, .57, and .70.[6] Having concluded that the k scores were satisfactory, the three primary coders proceeded to code the remaining transcripts. (The first lead author coded 11, and the second lead author six, consulting as necessary with a subject-matter expert.) Some code reassignment took place when the first lead author analyzed the coded quotes.

Strengths and Limitations of Our Data

The results we present are suggestive only. One limitation of our study is the limited sample size—too small to allow meaningful statistical analysis of our data. As a practical matter, it is infeasible (without enormous resources) to gather survey or interview-type

[4] For one of the outstanding executives, there were special circumstances (that we cannot disclose without revealing the respondent's identity) that led us to discard the respondent's answers for the decision-making questions.

[5] By "direct reports" we meant people who themselves run a unit inside the respondent's organization – e.g. (to take an agency not in our sample), the Office of Foods in the Food and Drug Administration. By "personal staff" we meant individual professionals working for the respondent's 'front office,' e.g. a chief of staff. In asking about the "top management team," we defined this as "the group with whom the executive normally meets to discuss important topics and make decisions" (we asked the respondent to "distinguish this from show-and-tell regular reporting meetings that may involve a larger group"). We recognize that there may be some overlap amongst the three groups.

[6] The second lead author was instructed to lean on the side of "over-coding," because unnecessary codes could be ignored when the first lead author was analyzing the data based on coding. Many of the "disagreements" involved situations where the second lead author provided a code and the first lead author left the quotation blank.

data for large N samples of top government leaders— they will not respond to survey research instruments used for the mass public. (Responses that do come for such surveys are from staffers.) As is common in qualitative research, we sacrificed breadth for depth, with in-person interviews averaging more than 3 hours. We argue that, compared with much qualitative research, our method is more disciplined. Our standard set of questions allows counting and comparison, and respondents were chosen in a systematic way.

The second limitation is that we did not observe actual decisionmaking processes, which would have probably been infeasible and at a minimum, extremely resource-intensive. We relied instead on respondent accounts. We suspect it is socially desirable to claim one gathers a wide range of information, encourages diversity of viewpoints, or is open to changing one's mind; however, we sought to reduce social desirability bias by asking for examples or specific facts, rather than relying on general statements. So, for example, we did not ask, "do you often change your mind before making a decision" but instead asked respondents to discuss examples of situations where they did so.

Some of our findings—especially regarding vigilant decision processes—may be seen as providing field evidence outside of a foreign policy context in support of propositions developed either in that latter context or in the laboratory. Findings about "most difficult"

decisions, which we came upon unexpectedly during the research, may be seen as yet another example of how qualitative research helps to generate new theories as much as testing existing ones does (Edmondson and McManus 2007).

Results

With some notable exceptions, which we discuss later in this section, we found more similarities than differences in the responses of outstanding executives and controls. In many ways, there seems to be a style of decisionmaking common to senior federal executives.

Information Sources for Decisionmaking

Table 1 lists categories of people that respondents consulted. These were broadly similar for the two groups—the most common were direct reports, hierarchical superiors, peers in the larger department, and personal staff.[7] The number of categories consulted was very similar between the two groups, with executives consulting on average 3.4 different categories. If anything, there is evidence some outstanding executives may consult less broadly than the members of the control group; of 10 outstanding executives, two began their answer stating they did not consult much ("I don't really spend a lot of time consulting people" and "I guess there are fewer and fewer people you rely on when your job is like this."[8])

Table 1. People Consulted for Important Decisions

	Outstanding Executives	Controls
Direct reports	7	7
Personal staff	4	3
Other subordinates	2	3
Internal experts	1	1
Hierarchical superiors	6	4
Peers within department	5	4
Peers outside organization (but inside government)	2	3
External advisors	2	4
Congress	2	3
OMB/White House	2	2

[7] By "peers within the department," we mean colleagues at the same organizational level as the respondent but in a different part of the department, e.g., for the head of a Bureau, a fellow Bureau chief. By "peers outside the organization (but) inside government" we mean executives in other agencies with similar jobs, e.g., for a CFO, peer CFOs in other departments. By "external advisors" we mean a former senior government official familiar to the respondent with some stature and expertise relevant to the respondent.

[8] One control began the answer as follows: "I have to say, I begin with myself. I have a core set of values."

We were somewhat surprised by the dominance of the mention of direct reports by outstanding executives and seven controls.[9] Respondents made fewer references to sources outside the organization (Congress or OMB) than we thought they would, and almost none to "old friends" outside their agency. On reflection, though, perhaps these results should not be so surprising—throughout his or her career, an executive develops a trusted, regularly consulted top management team, with others likely to be more occasional advisors.

Seven respondents—more controls than outstanding executives—reported using external advisors. One control noted:

There might be some of those that I trust in a given area of expertise, whether it's [leaders of private organizations affected by the organization's decisions], but it could be senior leaders in state government. You know, whether it's the state secretary of [the organization's policy area] or a chief of staff for a governor, you know, those that are involved in the [policy area] broadly would be those that I might have for information.

An outstanding executive stated:

I would use, on a confidential basis, a network of advisers I had. So, a couple of CEOs of big companies, who I'm close with, when I was trying to make a decision. I might ask, "Am I driving change too fast? Some people are getting uncomfortable, but I want to move it." I mean, just general or strategy issues.

To our surprise, only one respondent (an outstanding executive) mentioned seeking advice from old personal friends: "If it was something political happening, I would talk with some people I knew from the outside, who were just very good, who would look out for mine and the agency's interests in confidence." More generally, controls were somewhat more likely to

consult people outside their organization—controls cited 12 such sources, with only eight consulted by outstanding executives. But outstanding executives were somewhat more likely to consult a hierarchical superior.[10]

Five controls, when asked whom they consulted, responded that they consulted different people for different kinds of questions (only two outstanding executives responded similarly). We are hesitant to draw any conclusions about this, but perhaps it weakly and tentatively suggests the outstanding executives are more likely to have a stable team to whom they regularly turn for a wide range of decisions. An executive in the control group[11] provided an extreme example of not having a stable consultation group, stating that when a difficult decision needed to be made, a sort of all-points bulletin went out to the staff:

It's very common when I have a decision in front of me to ask advice from many or all of them or, in some cases, some of them. I don't have any reservations about going out and saying, "Look, here's something that's in front of me. It's going to affect all of you. Tell me what you think."

For many of these executives, then, it is not that lonely at the top. However, seeking a wide range of information and opinions from a large circle of advisors rather than a narrow coterie does not guarantee the diversity of their input. It is difficult to gauge that type of diversity from the interview transcripts; however, we concluded that direct reports to our sample were relatively diverse in terms of background and structural position, with both groups of executives identifying heads of legal, press, and congressional affairs offices, as well as bureau chiefs, as examples of direct reports.

We also have other data we believe sheds light on the question of diversity among those consulted—the percentage of the executive's personal staff and of direct reports who are careerists as opposed to non-career (that is, political) staff members. If political staff

and careerists bring different perspectives, one may assume diversity of inputs at least on this important dimension, at least to the extent that the executive regularly consults a group composed of both. However, there has been concern that the growth of non-career/political staff members may be vitiating this source of diversity. "It may be increasingly the case that the two worlds of politicals and careerists never collide at all, because the two groups move through separate space with little or no opportunity for contact" (Light 1987, p. 157).

We did not find this to be true. We asked respondents how many professionals were on their personal staff and how many direct reports they had, and then how many of these were careerists. For respondents who were themselves political appointees, the mean percentage of personal staff who were careerists was 77 percent; for direct reports, it was 78 percent.[12] Career people dominate among those consulted, which, by definition, provides diversity because the executives themselves are (mostly) political. This is an important source of diverse views for leaders. We also asked respondents how many of their current direct reports were already "in place" when they assumed their position, on the assumption that the holdovers were more likely to be a greater source of diversity than people that executives selected themselves or brought

with them to the job. For all executives who were political, the mean was 39 percent; for all who were formerly career, it was 55 percent. So for the political appointees, only about one-third of their direct reports stayed on; subjectively, this strikes us as a bit low from a diversity perspective.

In response to a closed-ended question (see Appendix), both groups on average preferred to "bring in representatives of people in the organization with different points of view" when they were making decisions, rather than limiting the discussion to "my most-trusted staff," although there is reason to be concerned about a social desirability bias on the answer to this question. The mean preference value for outstanding executives (7.2 on a 10-point scale, with 10 representing the "different points of view" end of the continuum) was somewhat higher than for controls (5.8).

Table 2 presents answers to our question about information sources other than individuals. Every respondent cited at least one such source. Here, though, there was a noticeable difference between outstanding executives and controls, with the former citing noticeably more such sources (2.6 versus 1.5). This difference was accounted for by greater use of written information (15 versus eight mentions and

Table 2. Sources of Information Other Than Specific Individuals

	Outstanding Executives	Controls
Written Sources		
General media/daily press	4	2
Trade press	4	3
Websites/Google	4	2
Reading incoming emails	2	0
Outside datasets/statistics	0	1
Books	1	0
Outside Experts/Academics	4	1
Oral Sources		
Outside organizations/interest groups	4	4
Customers	1	2
Frontline employees	1	0
Employee union	1	0

[9] One of the 10 outstanding executives led a matrixed organization without any formal direct reports.
[10] The external sources were peers from other government agencies, external advisors, Congress, and OMB. Many of those who consulted external sources noted that this occurred on a sporadic basis, depending on the decision, while those who consulted superiors were more likely to say this occurred regularly for a wide range of decisions.
[11] This response was not counted among the five responses defined as "it depends on the decision," because the respondent 'did not use that expression.

[12] We include only respondents who were politicals because for respondents who themselves were careerists, all these subordinates were careerists.

outside experts/academics four versus one mention). Two outstanding executives specifically noted they tried to get information about private-sector management practices; one tried to learn how to manage better from "academic institutions, professors, and writings"; and a fourth tried to learn more about management from lectures by experts.

We also note that in parts of the interview not specifically dealing with decisionmaking, six respondents (three outstanding executives, three controls) made one or more spontaneous references to their decisionmaking philosophy as "data-driven."[13] Respondents discussed their preference for more data as follows:

When decisions were coming at me, it wasn't just chitchatting, "What do you think, what do you think?" It was, "What's the data?" And I'd often send people back, and I'd often drive the data. …[Staff would say], "We want to do this. We want to shift a major program here." I would then look at that and say, "Well, give me this piece of data, this piece of data. …And so we wouldn't just take data input. We'd also kind of drive a decision to make it much more analytical, frankly, than it showed up on my desk at times. … We called this kind of "moving the whole agency to being data-centric" (outstanding executive).

I'd tell people, "I cannot go to the Secretary and make a recommendation based on what you just told me." And then oftentimes you'll get information…[where I would] say, "That's interesting. I don't know what it's telling me. …What are you telling me about is it gonna be faster, better, cheaper, smarter? I don't know, based on what you've given me" (outstanding executive).

So, my aspiration for this organization is to be data-driven. Emotion plays in for a part, but to the extent practical I want to have strong data that supports these refinements in the way that we do things" (control).

Top Management Team Size and Free Riding in Groups

It is tempting to adopt a "more is better" attitude to the number of people in an executive's decisionmaking group, on the premise that additional people add more diversity of opinion and information.[14] However, the larger a group becomes, the greater the danger of free riding, producing less information; a meta-analysis of studies on brainstorming (Mullen et al. 1991) shows that, despite its popularity, in fact more ideas are generated by asking individuals privately than by bringing them together for brainstorming. Research (Hackman 1998) concludes the optimal size of decisionmaking groups is five or six; smaller ones are insufficiently diverse, and larger ones marred by too much free riding. In our study, the mean size of decisionmaking groups was seven for outstanding executives, 6.6 for controls. Six outstanding executives had top-management teams with five or six members (four controls had four to six members), suggesting their size is closer to optimal than in the 10 direct reports that executives in large private firms average.[15]

Getting Diverse Opinions

We also asked a question in the interviews about specific steps the respondent took to encourage diverse opinions. However, in some sense more remarkable than the results of that question, was the fact that a surprisingly large number of respondents (seven outstanding executives, six controls) spontaneously made an observation about efforts to increase the diversity of opinions in some part of the interview other than when they were specifically asked this question.

For example, from the outstanding executives:

If I want the best people, I got to get out of groupthink. I'm not going to get the best answers if everybody comes from the same background, everybody has the same culture. So I'm not into this as a group-hug thing. I'm just pragmatic. The more diverse my organization, the more creative it tends to be.

I don't want a lot of people around me that are going to tell me what I want to hear. I don't need that. I don't think it leads to good decision-making.

I often say to (my staff), "Tell me what you really think. Candor is welcome." That's one of my favorite phrases. I really try to form kind of a trust zone, so a lot of times if I'm running a meeting, and it's a very sensitive issue, I'll say, "Look, guys. Everything we're going to say stays in this room. You don't have to worry about it. It's not for attribution." Because I want people to speak their minds, right? A lot of times – and I don't think this is just government—people are intimidated or they feel like they can't speak out because their boss is there. …

Members of the control group expressed similar views:

When we set up our strategic plan, I actually put some people (on the team) I knew were dissenters, because they'd written me all through my three years here about how much they disagree. So I do try to make sure that I have somebody with a different point of view in the meeting and to hear them out.

I already know what my view is, right? I don't want a bunch of folks to simply be yes-men. What I want is I want that diversity of thought. And the reason I bring my decision I hired a young lady to lead [an] effort for me. [When] my assistant called her, she said, "He wants to talk to me? Did I do something wrong?" My assistant said, "No, I think he wants to hire you." She says, "But he doesn't like me. He always argues with me when we're in the meetings," right? And my assistant says, "Oh, no, you don't understand him. He likes people who challenge his thinking because it informs his ultimate decisions." So, that's sort of my makeup, right? I don't think I know all the answers to everything

Every respondent was able to give at least one example of a technique used to encourage diverse opinions. However, outstanding executives mentioned a larger number of techniques—1.6 per respondent versus 1.1 for controls. We list below the techniques

respondents identified in order of their frequency. Respondents mentioned both techniques to increase the variety of voices present and to encourage those at the table to speak up:[16]

1) Reaching out to lower-level employees for opinions:

[I have] folks [from the field] in every meeting, they're seeing every decision. If we walk out of a meeting, I'm saying, "How's that going to play in your facility? What's the impact going to be?" And really getting feedback from that It's amazing how the people that actually have to implement your policies day in, day out…don't see it the same way that you do at the high-level policy level.

I try to involve people at all levels of the organization. …I will tell you, I once had a boss that told me one time they were challenged with an issue. And there was a guy in picking up the trash. And while they were all sort of stuck because they were all sort of the same background and makeup, the kid who was picking up the trash said, "Excuse me, but that's not hard. Have you guys tried doing this?" And it was the right answer, right? …And I tell my team this all the time. I've got a situation right now where a valued…line employee is on a key committee that advises me on one of our major information technology projects. This particular person isn't an IT person, but she's the customer for the project. So I want her on this team. … I will not permit blockage of the viewpoint of our line employees. That's the way you keep yourself grounded in what's going on.

2) Specifically encouraging people to speak up, in groups or one-on-one meetings:[17]

I put everybody at the table, I want to know what their opinions are. And I go out of my way to ask them. … It has to be, "I need to hear from you. I want to be informed. We don't always agree. But it's then a more informed decision."

If we have a meeting, and two people are sitting there and haven't said anything all meeting, they don't get the luxury of getting out of the room that way. I will say, "Okay, Mary, what do you think about what you have just heard? What did we not think about? …You're sitting

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[13] Three outstanding executives and one control also used, in all cases more than once, the words "rigor" or "rigorous" in describing the process they went through to make decisions.
[14] Prescriptions for reducing groupthink do not suggest increasing group size per se, except for bringing outside ad hoc experts into deliberations.
[15] Guadalupe et al. (2013) found the mean size of top-management teams in FORTUNE 500 firms (defined as the number of direct reports to the CEO) in 2005 was 10, double the number 20 years earlier. The mean number of direct reports for our executives was 7.8, not radically different from the numbers for the private-sector executives; the government organizations our executives led are considerably smaller than FORTUNE 500 companies, but the private-sector evidence is that beyond a medium-size organization, there is little connection between organization size and number of direct reports. (The Guadalupe et al. paper does not discuss direct reports as decision advisors and attributes their increasing number to increasing efforts by companies to centralize functions such as IT.)

[16] The techniques significantly track, and in some cases add to, those recommended by Janis and others. Nobody mentioned enlisting a "devil's advocate," and there were few references to bringing in outsiders to a discussion; one respondent (a control), mentioned seeking the opinion of outside constituency groups as a way to encourage diversity.
[17] Two outstanding executives (no controls) specifically mentioned that sometimes this needed to be done one-on-one, separate from larger meetings.

there thinking, "God, I can't believe they're going to do this.'" I mean, just trying to draw people out.

As I was walking out, I said to someone, "Wow, I thought that was a really good meeting." The person said, "Why?" And I said, "Well, because when I was making that point about this thing, I wasn't getting any kind of opposition, so I figure there's a lot of support for that." And he said, "Oh, no, around here, if people disagree with you, they don't say anything." …So what you have to do is figure out ways that you can kind of break through and give people some safe space. I think, in big groups in particular, until people get to know you, senior career civil servants are not willing to give their opinion. The group dynamic doesn't encourage that. And that's why I'm often having the one-one-one. And in fact, senior career civil servants will always do this within a month of you getting here. …[That way you can] be able to open a dialogue that isn't necessarily exposing them to a group dynamic.

3) One last chance to speak:

I try very hard to see if we can go another round of, you know, dragging people in or asking people to participate.

Then at the end [of the discussion] I have my most trusted folks, and I say, "Here's what I heard. Here's where I think I'm going. This is kind of the last effort. Do you see me missing something here? Or do you see it really differently? I'm two minutes from making this decision, and I want to allow my most trusted folks to get their last input in there and then go forward."

4) Holding own opinion until others speak:

First and foremost is I hold back. I tend to lean to making up my mind quickly. …But, you know, as a leader, I can't really express what I'm thinking the conclusion is or it pollutes the whole discussion.

If you walk in the room and say, "Look, I know there's different views on this. Right now, I'm agnostic, okay? I want the best solution, whatever that is." It's really disarming, right? Because then everybody feels a little more free to make their points Well, I mean, the problem is, is if you come in there, and you've already got your

mind made up, and you show it, then people are not going to feel like why put themselves on a limb when they know they're going to be cut off, right?

5) Voting:

[Occasionally], just to make sure I get candid, heartfelt input, I have the senior team do yes or no vote on secret ballot, I was the only one who looked at results –so knew exactly where people stood.

6) Miscellaneous:

I like to throw hand grenades into the room—a really outrageous statement. So, when I first got here, I knew that [one of our major programs] was going to consume my time. So one of the first things I said is, "We'll just abolish [it]." I sometimes find, you have to say things that are so outrageously off of what that are accepted things, just to get them to move a dime and think about things.

Changing Course

One behavioral indicator of a leader's willingness to listen to different opinions—and overcome confirmation bias—is how often he or she changes his or her mind in response to new information or views. So we asked respondents whether they could recall examples of changing course. One surprising result was that seven outstanding executives—compared with only three controls—spontaneously stated, although the question was not phrased to elicit such a general response, that changing course is not unusual. For example, one outstanding executive stated, "It happens not all the time, but it happens regularly, and this, to me, is a fundamental tenet of leadership, as new information comes in, we got to be prepared to change course." Another stated, "Change is going to happen, and you'd better be making decisions that accommodate the fact that you're going to get new information." One member of the control group stated, "You have to sometimes be willing to even back up a step or two in order to go forward again. But if you continue to chase that decision out of just pride or belief that you can get it done at any cost, it's often going to lead you to a failure."

All 10 outstanding executives, (seven controls) were able to describe at least one specific example of changing course when making a decision and during execution. (Three controls could not recall an example of changing course during execution; one—one of these three—also could not recall an example of changing a decision.) By far the most common reason cited for doing so was receiving new information—eight outstanding executives and four controls noted this for initial decisions; for changing course during execution, six outstanding executives and six controls said they did so as a result of receiving new information. Three outstanding executives and two controls specifically noted the influence of quantitative data[18] as a basis for changing course. For example, one outstanding executive stated, "We got much better economic data and were able to run much more robust analysis that showed us that the difference between [two thresholds for applying a regulation] were actually minimal.… So the analysis really took us in a pretty different direction." It is, however, noteworthy that nobody stated they changed course because of a new *opinion* they had heard.

One outstanding executive and two controls stated they changed course during execution in response to stakeholder opposition to the original decision: "Regarding [one regulation], as they rolled the program out, (we) got feedback from regulatory offices, who were closer to the ground, and I learned it had unintended consequences. Then we pulled back what we launched." In addition, three outstanding executives (compared with no controls) stated they changed course after concluding the initial decision was impractical.

Relations with Civil Servants

As we have noted, career civil servants can be an important source of information and input for subcabinet officials—indeed, that is their institutional role—so we also examined relations between the decisionmakers in our sample and their career staffs. Our survey included two open-ended questions about this topic and a series of closed-ended ones. Overall mean values on the closed-ended questions (see Table 3) are consistent with previous research suggesting that several years into an administration, political executives are positive toward senior civil servants.[19]

However, there is evidence that outstanding executives were not as positive about their career staffs as their control counterparts were.[20] Thus, while there was no difference between outstanding executives and controls regarding whether civil servants provided them good information, outstanding executives were noticeably less likely to believe their career staffs were candid in their opinions, or that they were sufficiently willing to change. Further, in an open-ended question about

Table 3. Mean Responses to Closed-Ended Questions on Relations with Civil Servants

	Outstanding Executives(*)	Controls(*)	Careerists(†)
Information1	1.3	1.4	2.4
Information2	1.4	1.4	1.7
Candor1	2.0	1.2	2.1
Candor2	1.3	1.1	2.1
Willingness to change	3.6	4.4	4.0
Loyalty1	2.3	1.1	1.7
Loyalty2	1.4	1.0	1.6

(*) Only executives who themselves are political appointees
(†) Executives from both groups who are career civil servants in their position
Note: For question wordings, see Appendix. In all cases but the "willingness to change" question, a lower value represents more confidence in civil servants.

[18] One outstanding executive, in discussing two different examples, referred in one instance to new substantive information and in another to new quantitative data. This respondent has been coded under both categories.
[19] We developed all the questions ourselves, except the one about loyally carrying out administration priorities, which we took from Aberbach and Rockman (2000, p. 123) In that sample, 71 percent of political executives agreed strongly or somewhat with the statement, compared with 90 percent of our respondents.
[20] We see in Table Three of the Appendix that executives who were themselves civil servants (two of the 10 outstanding executives, 5 of ten controls) were generally noticeably less sanguine about other civil servants than were either group of political executives. This is an interesting finding, which may merit further investigation, but is not directly relevant to our research questions.

the "leadership competencies" respondents thought were most important for government executives, three controls mentioned an ability to develop good relations with civil servants, while only one outstanding executive did so.

To our question about examples of important initiatives that careerists initiated, every respondent was able to give at least one. This speaks favorably to our sample's openness to diverse inputs. But controls were more likely to say they received ideas from civil servants all the time: five controls (compared with only two outstanding executives) gave some version of that response. "I could go on for an hour on the number of examples that the career staff have done," said one.

We also asked a question about situations where a civil servant had been "disloyal." Seven outstanding executives stated they had experienced such disloyalty, and five controls cited examples. Examples of disloyalty included going outside the organization (to Congress or the media) to oppose the respondent's course of action, obvious passive resistance to a course of action, or acting in a disruptive manner inside the organization. An outstanding executive (and former career civil servant) who had experienced disloyalty noted:

I have got a very solid team here, right? There is no doubt that some of the things that I'm trying to drive are very upsetting to [some], not because it's not the right thing to do, but it's moving their cheese. It's all the classic problems you run into, right? There are people that are, no doubt, trying to wait me out. If they wait long, if they push back hard enough, then they don't have to move, they don't have to do these things, somehow it'll just go away. I hope that's naive thinking on their part, but I do see that. And if you want to call that being disloyal, maybe that's a fair point.

We also included two closed-ended questions about whether civil servants were loyal. While the overall mean response on these questions indicated strong agreement regarding civil servant loyalty,[21] outstanding executives were less likely to believe this, especially whether civil servants would support a decision contrary to their views.

The "Most Difficult" Decisions

We asked respondents about their "most difficult" decisions, and consistent with discussions in the literature in that regard, we expected them to describe decisions that were informationally, technically, or politically complex. However, this was not what we found (see Table 4). *No* outstanding executive (and only four controls) described decisions that were difficult in these classic respects.[22] Instead, all 10 outstanding respondents (and six controls) described decisions that were very unpopular within the organization (often among those whose interests were negatively affected), and/or among external stakeholders,[23] or because it involved emotionally wrenching issues regarding programs or employees. These included decisions to significantly curtail or eliminate programs, reassign (or remove) senior career staff, challenge GAO or OMB, and even oppose a directive from higher

Table 4. Why Was "Most Difficult" Decision Difficult

	Outstanding Executives	Controls
Unpopular inside organization	5	1
Unpopular/controversial politically (with organized groups, public, Congress, White House)	1	4
Had emotionally wrenching personal impact for staff/specific individuals in the organization	4	1
Complex issues/hard value tradeoffs/had to think in new ways	0	4

[21] See Appendix and Table Three. The numbers here are only for respondents who were political appointees.
[22] In the narrative of their decisions, one outstanding executive (and two controls) emphasized features of the decision that were informationally complex, even though they did not state this was the main reason the decision was so difficult.
[23] These decisions were not presented as being "controversial" in the sense that there were strong advocates on both sides, the way "difficult" decisions are often discussed in the literature. It was more the decisionmaker "'against the world."

headquarters that an official felt would severely hurt the organization's ability to do its job.[24] The executives generally did not regard these decisions as difficult because it was hard to decide what the right thing to do was; to them, the "right thing" was relatively straightforward (although, of course, others might disagree with the executive's ultimate determination in that regard). Rather, what made the decisions they described so difficult was that they required courage and character to actually go ahead and do that "right thing." (Hannah et al. 2011 use the phrase "moral courage".) In all these cases, the executives chose the decision they regarded as painful but right.

The government was in the middle of budget-crisis land and continuing resolutions and the beginning of the campaign at that time, and OMB simply did not want to support us in getting moving on [the important problem the organization needed to solve]. … So I had to make the decision, do I just eat this or do I hope for the best? 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." (outstanding executive)

Sometimes what you have to do is as clear as day, but the implementation is going to be difficult. … If you start to care more about what people think about you than your job, you're going to start compromising your decisions. And as soon as you start doing that, you start having to spend a lot of time thinking, because if the question isn't, "Is it the right thing to do?" then why the hell are we doing it? "Well, there's a political consequence to it," they say. Well, I'm going, "Yeah, guess what. That's life." (from outstanding executive)

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 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. (outstanding executive)

We looked at it every way we could. We just couldn't figure out how you made the program successful, right? So we had to take the political hit and explain. …Well, there were certainly a lot of people that thought we should continue, 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? I mean, and I think we just had to tell people, "Look. Why continue on something that we have no way how we're handling it?" (from a fourth outstanding executive)

So [complying with strict but time-consuming implementation requirements] is something we had to do from a public-policy standpoint. And yet we've got this tremendous pressure to get the money out the door, and so, 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. (from a control executive)

[The program] was something the advocates had advocated for a very long time. … I spent a year and a half working trying to implement this. …I finally concluded [the program could not be made to work]. But this was exceedingly difficult because of the expectations of the advocates, because of the connection with the [the Administration's priorities] … The people who were opposing the [Administration] were pleased with the decision. The supporters of the President and Democrats in Congress were disappointed. So it was very stressful and a very difficult decision. …[But] I've been in public service for two decades. And I was not willing to implement a public program I believe is flawed. (from a control executive)

The importance of courage in making these "most difficult" decisions does not mean that they were technically or informationally simple, or that the executive decisionmaker did not have to gather information and inputs in the process. However, only four of the outstanding executives (compared with seven controls) reported gathering pre-decisional

[24] Decisions we classified as difficult because they involved complicated information or tradeoffs included ones involving characteristics of major IT systems and a policy decision that required balancing the overall agency mission against the specific responsibilities of the respondent's organization.

information from lower-level staff, consultants, or, in the case of two controls, from written documents. Only a very modest number of respondents (two outstanding executives, one control) made any reference to gaining additional information and insight through discussions with their top management team. And six outstanding executives (no controls) essentially made the decision by themselves, with no real informational input or advice from anyone.

Decisiveness and a "Bias for Action"

A closed-ended question (see Appendix) asked the respondents whether they leaned toward exhaustive information gathering even at the risk of "paralysis by analysis" or toward decisiveness, even at the risk of acting with insufficient information. Interestingly, both outstanding executives and controls leaned toward the right, "decisive" side of this scale. However, outstanding executives were more inclined to favor decisiveness than controls, with a mean value of 6.8 (versus 5.7 for controls).[25]

Furthermore, four outstanding executives (but no controls) specifically mentioned a preference for avoiding paralysis by analysis in comments during the interview, outside of our question.[26]

I've seen way too many organizations where procrastination on decisions causes a lot more impact than even a bad decision. You know, there is an old adage out there that even a bad decision well-executed is better than no decision. You know, I have a responsibility on my team to be the person that accepts risk and makes the decisions that let the team move forward. .. I would prefer to make a decision and let the team move forward rather than say, "Well, let's move this to committee and think about it again."

I had breakfast with Colin Powell once. He's got a military view of this, which is, senior-level executives should decide what decisions they need to make and put a timeframe on it, because you don't want to make

it late. And when they get 30% of the information, they should start formulating a decision. And when they get to 70%, they should make it. Your intuition and judgment will take care of any diminishing return. And one of the big mistakes you see all over [our agency] is people need to have 99% accuracy.

But I don't stay up at night worrying about decisions. If you got the information and you know this is the right thing to do… We have a failure rate. But part of it because we're trying stuff nobody else would be willing to try. I think, probably it's the fear of failure that paralyzes people.

Finally, in our open-ended question about leadership competencies, four outstanding executives (only one control) named "decisiveness" as an important competency.[27] Two outstanding executives both made a spontaneous comment and also listed this as a leadership competency, so in total, six outstanding executives (one control) discussed the importance of decisiveness and acting without full information.

As a leader, you have got to have a bias to act. When faced with ambiguous circumstances, when you're presented with, I'll call them, excuses to do nothing, you've got to fight that off. … And especially in the government, there are a thousand reasons to do nothing. But you know what? Progress never happened by doing nothing. … Frequently what you'll be presented with is one or more reasons not to act and one or more reasons to act. And that's why I always say, "When in equipoise, move forward. Act in the face of ambiguity." Unless there's a really good reason not to act, act.

We need people that can make decisions, that can gather input and make crisp, clear decisions, because a lot of times in government you're not getting clear decision-making.

Discussion

Both outstanding and control executives tended to employ similar, vigilant problem-solving techniques to deal with technically and informationally complex decisions, and the evidence also suggests that most considered highly diverse information inputs in making these complex decisions. The following four techniques were used. (1) Both groups sought advice from a wide variety of people, relying most heavily on direct reports; the fact that a majority of both direct reports and personal staff were career civil servants is an important indication that our executives are receiving information from people who are likely to have different experiences, and hence, different perspectives. (2) The number of those direct reports and personal staff was close to the optimal size recommended by the research on group decisionmaking. (3) In parts of the interview not dealing with this issue, both groups often spontaneously mentioned the importance of hearing diverse points of view; furthermore, all could state at least one measure they took to solicit those diverse inputs. (4) Almost all respondents were able to cite at least one example in which they changed course as a result of new information and insight.

There were also differences between outstanding executives and controls, although we are hesitant to over-interpret them. Compared with controls, outstanding executives seem more likely to: (1) "bring in representatives of people in the organization with different points of view" rather than limiting their advisors to "my most-trusted staff" when making important decisions; (2) consult written sources to gain information for decisions; (3) say they change course about decisions or during decision execution "all the time" (also, some controls, but no outstanding executives, cannot recall ever having done so); (4) cite a larger number of techniques they use to encourage dissent; (5) worry about the loyalty of career employees and the candor with which they express their opinions; (6) regularly consult the same people for important decisions, or do not consult widely at all;[28] (6) prefer decisive decisionmaking "even at the risk of making

the decision without enough information" to getting "a great deal of information even at the risk of 'paralysis by analysis.'" The first four differences correspond to the conventional view that more diverse information inputs produce better decisions, so executives who do these things more are more likely to be successful. However, the other differences do not really seem to fit into that vigilant paradigm, an issue to which we now turn.

The "Most Difficult" Decision

The most interesting differences we found between outstanding executives and controls involved their "most difficult" decisions—in terms of how they defined them, as well as in terms of how they made them. Without exception, outstanding executives described their most difficult decisions as ones that we would characterize as requiring courage and character—not ones that were necessarily particularly complex. Nor did those "most difficult" decisions involve questions of right versus wrong, where the choice was between the right thing and something immoral or unlawful. Rather, in the decisions our executives described to us, the alternative to the courageous act was almost always to do nothing—to just let an unsatisfactory condition persist.

What is required to make those courageous decisions? First, they are about the executive's own character. Because they are often not informationally complex, they involve more introspection rather than more information. This shaped how many of the outstanding executives approached these decisions—essentially by themselves, without much consultation with or information-gathering from others.

What, then, is the role of advisors? Perhaps they can provide moral support to an executive faced with a tough decision—to help that executive avoid the temptation, in Margaret Thatcher's vivid phrase, to "go wobbly." *Some leaders may need their decision support group to help steel their resolve.*[29] This suggests an amendment to the conventional view of good group decisionmaking. To put it provocatively, perhaps the

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[25] For political appointees only, differences were actually more dramatic (6.8 versus 5.0), so this was not driven by a larger number of politicals among outstanding executives.
[26] No respondent spontaneously advocated the opposite, i.e., being sure to have all the facts before making a decision.
[27] This was separate from the spontaneous answers just discussed.

[28] Note that evidence for these statements is particularly weak, and the conclusion particularly speculative. Some outstanding executives (two of 10) said they did not consult widely, and some controls (three of 10) did volunteer that the people they consulted varied by the decision. Controls were also noticeably more likely to consult with external people, such as Congress and external advisors, which is likely to occur more on a case-by-case basis and also involve consulting people not in the room when decisions are being discussed.
[29] A meta-analysis of correlates of ethical decisionmaking in business (Loe et al. 2000, p. 199) showed "overwhelming support" for the "pervasive influence of peers" (Hannah et al. 2011; see also, Gino 2009 and Mayer et al. 2013). Obviously, if the leader is of lesser character, a supportive group will encourage that as well—a key message of the literature on unethical decisionmaking in organizations. And if the executive wants to do the right thing but the group is indifferent or opposed, the group will not help steel leader's resolve.

best kind of support to provide a leader in a "character and courage" situation is exactly the kind the groupthink tradition finds most worrisome—a tightly knit in-group helping reinforce the leader's confidence and resolve.[30]

The most difficult decisions are not ones executives make all the time. However, our unexpected results regarding these kinds of decisions raise an important question about the "more is better" prescription in the group decisionmaking literature.

We really cannot do too much more than speculate here. Because our findings about decisions involving courage emerged unexpectedly from our interviews, we had no questions to explore them, and we suggest this as an important topic for future research. We theorize that successful executives must be able to be *ambidextrous*—to use a term from organizational design theory developed for different contexts (O'Reilly and Tushman 2008)—in the decision processes they use. If faced with technically or informationally complex decisions, a vigilant approach to the problem would seem optimal, as the literature recommends. However, for those more difficult decisions that involve questions of character and courage, it may be that introspection and resolve—grounded in the leader's own self-confidence, perhaps bolstered by his or her leadership team—may be the best approach. We note that our outstanding executives seemed to display this ambidexterity; they more likely than controls to consult widely in their organization when making informationally complex decisions, but more likely to consult less, and even go it alone when faced with a matter of conscience and courage.

We are very hesitant to draw any conclusions from the two outstanding executives (but no controls) who spontaneously offered that they did not consult very many people when making hard decisions. However, one might argue that because decisions requiring courage become more critical to an executive's success, the successful executive must be able to rely less on consultation and more on conscience: we note

that one of these executives faced an environment where much of the job consisted of making decisions that were organizationally and politically controversial, while the other noted at several places in the interview the importance of ignoring controversy in making decisions.[31] It is also noteworthy how many executives, particularly outstanding ones, relied on advice and counsel from hierarchical superiors in making tough decisions. In the case of difficult decisions, they may be more a source of support and resolve. (The less generously inclined might characterize consultations with superiors as seeking "cover," but we take a more positive interpretation.)

We cannot suggest any causal connection between the fact that outstanding executives were more likely than controls to define their most difficult decisions as ones requiring courage, and the fact they were also judged by others to be outstanding. Instead, we theorize that a strong set of core beliefs and goals, along with a strong need for achievement (McClelland et al. 1953), are underlying factors associated with executive success. If true, then there may be a common variable that both helps executives to be successful and also makes it more likely their self-reported most difficult decision involved courage: the argument would be that a higher commitment to core beliefs and to achievement is associated with both success *and* with placing executives in situations where they know what the right thing to do is and why it is important to do it (to achieve their goals), but where the choice is painful. Less-committed executives might not face these as their toughest decisions because they would be more inclined to respond to such conflicts by taking the easy way out.

Still, we argue that there is a relationship between the ability of our outstanding executives to make decisions requiring courage, and the fact that others see them as outstanding. We also argue that devising a process to help them make such decisions will improve their effectiveness.

"A Bias for Action"

As noted, outstanding executives also placed a greater value on decisiveness than do the controls—displaying what Peters and Waterman (1982) call a "bias for action." The groupthink literature does recognize that vigilant problem-solving may diminish decisiveness because it is "costly in taking up the precious time of already overburdened executives" (Janis 1982, p. 265). However, psychologically, gathering more information and deliberating more may be a way to avoid decisions, producing what is colloquially called "paralysis by analysis" (Langley 1995).

Decision avoidance is a fact of life. As Anderson (2003, p. 139) notes: "The experience of postponing and avoiding certain choices is universal." It may occur for a number of reasons. If decisions are hard or painful, people may avoid them simply to avoid pain or in hopes the problem will solve itself. Psychologists have studied "omission bias" (Spranka et al. 1991, Anderson 2003), the bias in favor of not deciding over deciding, which seems to occur because people become more upset[32] about a decision (commission) that turns out badly than about a non-decision (omission) that does so. In government, this is strengthened, because the punishment for mistakes is often stronger than the reward for success. Furthermore, legal requirements to explain and justify many government decisions help create a culture where exhaustive information-gathering and deliberation are favored over speed and finality. Finally, at any given level of an activity's effort or unpleasantness, some people just procrastinate more than others.

What do we make of the fact that outstanding executives seem more likely than controls to value decisiveness? It may just be that the ability to execute based on a bias for action serves as a mediating variable between the drive to make things better and actually succeeding in doing so. This too has implications for the "more is better" view. Executing a bias for action also requires character, because avoiding decisions is easier than making them, so helping a leader to decide can be important. Thus,

the same argument for moral support applies. Furthermore, this suggests the relationship between quantity of information-gathering and success does not have a linear upward slope, but may take the form of an inverted U (Grant 2011). Up to a point, more information search helps, but past that point, losses from indecision or delay may make success less likely.

The Importance of Character for Other Attributes of Outstanding Executives

There were only a few differences between outstanding executives and controls regarding the leadership competencies they cited as most important, but those few were significant. Both groups identified such things as the ability to listen, negotiating skills, and substantive expertise as important leadership qualities. However, in addition to their view that decisiveness is a critical competency, four outstanding executives (and no controls) identified "focus/ability to prioritize," and three (only one control) did the same for "having a vision." And even though we asked no questions regarding organizational change, six outstanding executives (compared with only three controls) brought up the need to drive change in various parts of the interviews.[33]

Character is important for all these attributes. To articulate a bold vision, and then to stay focused on realizing that vision—against temptations to skate from one interesting project to another—requires character. Much of the literature on leading change emphasizes the importance of consultation and participation, but we suggest there is also a character element to leading a major (and by definition, controversial) organizational change effort, simply because leading change is more difficult than settling for the status quo—like decision avoidance, the latter is the easy way out. So getting support that strengthens an executive's resolve is important here as well.

Which brings us back to our provocative title. Ultimately, Tom Petty's declaration that "I Won't Back Down" may in fact be an effective mantra for decisionmakers. However, in this sense, "not backing down" does not mean that executives make

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[30] Some of the literature regarding the potential benefits of groupthink (e.g., 't Hart et al. 1997) suggests that it can provide leaders with "emotional support."
[31] Talking about George Washington, about whom he had read a lot, the respondent noted that "if [Washington] listened to his critics, if his compass was such that that weather vane banked upon polling and public opinion, how could you run that army? And so sometimes it's like you just kind of have to take the position as, 'If you start to care more about what people think about you than your job in this town, you're going to start compromising your decisions.'"

[32] Before the decision, they feel what psychologists call "anticipatory regret."
[33] It is plausible to believe that a reason for the somewhat lower enthusiasm of outstanding executives regarding civil servants was related to a perception these staff members were less enthusiastic about the executive's change agenda.

a decision and stubbornly stick to it despite learning new information that may necessitate change—our study suggests that they do indeed change course during the decisionmaking process. Rather it means that successful government executives must have the resolve and intestinal fortitude not to shy away or back down from making a decision they believe is right, regardless of how painful it may be, and ultimately find the strength to follow through on their convictions.

Implications for Research and Practice

Despite limitations due to limited sample size and inability to observe actual decisionmaking, we believe we have uncovered interesting patterns and topics for further research. Our findings present perhaps a more positive view of the extent to which senior US federal executives are vigilant in making decisions. The groupthink literature has focused primarily on foreign policy decisions, which are more insulated from transparency demands, questioning by third parties, and legal requirements (such as the Administrative Procedures Act) than those made by the executives we studied. We have also drawn attention to the design of differentiated decisionmaking processes where the leader must deal with issues of courage and complexity, and hence, must be able to adapt his or her decisionmaking approach accordingly. Researchers and practitioners need to learn more about how executives differentiate between the two, as well as how they can acquire and apply the "contingent" decisionmaking competencies (individual as well as group) successfully to deal with both.

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Appendix
Closed-Ended Questions On Decisionmaking Style and Relations with Civil Servants

Decision-making style
These questions presented two alternatives at points 1 and 10 on a scale, and asked respondent to locate themselves on the scale:

Point 1: "If I have a meeting to discuss and important decision, generally most of those in attendance are my most-trusted staff, who can discuss with me arguments for different courses of action."

Point 10: "If I have a meeting to discuss and important decision, generally I bring in representatives of people in the organization with different points of view, so I can hear them discuss their opinions."

Point 1: "I prefer to get a great deal of information before making an important decision, even at the risk of 'paralysis by analysis.'"

Point 10; "I prefer to be decisive in making an important decision, even at the risk of making the decision without enough information."

Relations with Civil Servants
(INFORMATION PROVISION)

1. Senior career civil servants often raise points about the issues I am considering that I would never have thought about myself.

2. When a senior civil servant raises an objection to something I am considering, the objection almost always has merit, even if I end up not accepting the objection.

(CANDOR)

1. The senior civil servants with whom I work generally give me their unvarnished views, even they are contrary to my own.

2. I feel I can almost always trust the advice given me by senior career civil servants with whom I deal.

(WILLINGNESS TO CHANGE)

1. In general, the senior career civil servants with whom I work are not willing enough to consider changes in the ways we have always done things.

(LOYALTY)

1. The senior civil servants with whom I work generally will fully support a decision I've made, even if it's contrary to their advice.

2. The senior civil servants with whom I work generally work hard to carry out administration initiatives and priorities.

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